

# Small Trimarans

The first online community for enthusiasts of trailerable (and cartopable) trimarans

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## An Introduction to Small Trimarans

August 15, 2008

Categories: Small Tri Info - All

Tags: small trimarans, trimaran, trimarans

No Comments

# No Gas (or other heavy expenses) Required

August 16, 2008

Categories: Small Tri Info - All

Tags: small trimaran sailing, trimaran sailing

No Comments

# Adventure Trimaran Videos

August 16, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: adventure trimaran, adventure trimaran video, trimaran, trimaran video

No Comments

# The Adventure Trimaran

August 16, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: adventure trimaran, trimaran, trimarans

No Comments



## 2 More Trimaran Sailing Canoes

August 19, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: fast sailing canoe, Gary Dierking, trimaran sailing canoe

No Comments

## More on Gary Dierking's Small Trimarans

August 19, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: fast trimaran sailing canoes, Gary Dierking, sailing canoe, trimaran sailing canoes

No Comments

# The A18T – One of My favorite Small Trimaran Designs

August 20, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chris Ostlind, small trimaran design, trimaran designs

## Comments

**Harry Tomlinson**

August 23, 2008

The A18T prototype was sailed at the 2005 Lake Powell Messabout. What happened with the boat since then?

**Small Tri Guy**

August 23, 2008

Hello Harry,

To my knowledge the A18T is still being worked on by Chris. In other words, he's still working on the prototype before releasing his final plans. He wants to work out some bugs. But he did say the basic expectations about the boat have been confirmed during his sailing trials.

Warm Regards,

Joe Farinaccio

"The Small Tri Guy"

# An Excerpt from My Interview with the Founder of Duckworks

August 27, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: build trimaran, Duckworks, Duckworks boat building, trimaran plan, trimaran plans

No Comments

## A Few Trimaran Video Links

September 3, 2008

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: corsair trimaran, Magnum trimaran, Small Trimaran Videos, trimaran canoe, trimaran video, windrider trimaran

### Comments

**stefano**

December 22, 2008

Hello,

very interested in small trimarans. I own a 720 trailertri anda home built 17 ft proa that is now being upgraded to trimaran with bowsprit and gennaker.

I'm writing to point out that MUffolo, the italian tri is actually a kurt hughe 24 ft design. I ignore if major changes were brought to the boat during construction, but I poke with the builder and he was the one to tell me about Hughes.

Cheers fro m Italy, Stefano

**Small Tri Guy**

December 23, 2008

Thanks for pointing that out Stafano! I missed the obvious with my original reference to that boat on my post. I've corrected it now ... thanks to you.

# Fun Sailing Podcasts – mp3 audios

September 6, 2008

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Add new tag, sailing mp3, sailing podcast, trimaran audio mp3

No Comments

# Farrier Marine F-22 Is Meant to Be More Affordable

September 9, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Farrier 22, Farrier F 22, Farrier Marine F 22

## Comments

**sooth**

July 18, 2011

I am very dubious about the suggested construction prices you're talking about here, if you need to be uncritical for the sake of designers talking with you that's your business, I guess you're a promoter rather than a journalist but for the prices being talked about here, dream on mate, but I would like to see your site presenting clued up and specific real world costs and the ins and outs from a critical perspective, a lot of people like to think of this as no go territory, I don't follow that logic at all, price variability is subject to limits and it takes a lot of trolling to find some designers hyperbole really doesn't live up to its claims.

**Small Tri Guy**

July 18, 2011

Hi Sooth,

As noted in the above, the prices are taken from Mr. Farrier's webpage. So I encourage readers such as yourself to apply some critical thinking and a bit of skepticism, especially when it comes to building costs. That being said, building costs can run all over the place, especially if a homebuilder is willing to exercise some frugality and "creative material buying" methods. (Bartering for goods and/or services, for example). I am totally open to publishing actual building costs from a homebuilder for any of the boats on this website. As a matter of fact, I encourage comments along this line. If an actual F-22 trimaran builder can share some real-life monetary figures in this commentary section then, by all means, please share them here.

# A Take-Away From My Interview with the UK.'s Magnum Trimarans Guy

September 12, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: magnum 18 trimaran, magnum 21 trimaran, magnum 21s trimaran, Magnum trimarans, small trimarans, virusboats trimarans

No Comments



## 3 Magnum Trimaran Videos

September 12, 2008

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: magnum 18 trimarans, magnum 21 trimarans, magnum 21s trimarans, Magnum trimarans, virusboats trimarans

No Comments

# Some Thoughts on Building Small Trimarans with Wood

September 15, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: small wood trimarans, trimaran building plans, trimaran plans, wooden built small trimarans, wooden trimarans

No Comments

# Discovering the DISCOVERY 20 Small Trimaran

September 26, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chris White Designs, Chris White multihull, Chris White multihull designs, Chris White trimarans, Discovery 20, Discovery 20 trimaran, small trimaran

## Comments

**dave trey**

January 23, 2010

Curious if you have pictures of the 20 w. carbon rig, as mentioned above ?

thanks, Dave

**Small Tri Guy**

January 23, 2010

Hi Dave, the only pics I have of the Discovery 20 trimaran are of the boats displayed when you click on the above links. They are the ones featured in my first book.

**Daniel**

July 23, 2011

How about getting that mast up and down, any handy method of doing that ?

**Doug**

October 22, 2011

Reply to Daniel: As designed, the Discovery 20 uses a hinged mast base, Dwyer part number DH 2121H. I think, with one bolt in, two people could lift this mast fairly easy.

I am currently building a Discovery 20, and like the design (so far...will really know after sailing it, of course). Unfortunately, Chris has failed to respond to the email I sent with some questions concerning the construction. Plans do not come with any build directions beyond the notes written on the plans, and if the designer does not answer questions after he has received the payment, I would not suggest this design for any but builders experienced with cold-molded construction.

**Karl S**

March 27, 2016

Doug

I'm very interested in building the Discovery 20 and am wondering how your project went?

I take note that the designer, Chris White didn't respond to your questions after purchasing plans. I think it's unprofessional for a designer who sells his/her plans not to respond to reasonable questions, especially if the plans are minimal in detail and info.

Where you able to complete the project and what is your observations of the building process.

Most importantly how did she sail? Would you recommend this design?

## Report on the US Sailboat Show in Annapolis (Part 2)

October 12, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Corsair 750 trimaran, Corsair Sprint 750, Corsair Sprint 750 trimaran, F-32RX, F-32RX Trimaran, Farrier F-32RX

### Comments

**Chris Long**

June 29, 2018

Wonderful

# Report on the US Sailboat Show in Annapolis (Part 1)

October 12, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Telstar 28 Trimaran, US Sailboat Show Annapolis

No Comments

# The Original Dragonfly Trimaran

October 24, 2008

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Dragonfly trimaran, Dragonfly trimarans, Magic Hempel, Magic Hempel trimaran

## Comments

**Alex Zecha**

June 8, 2010

Hi Mike,

Thanks for the story on your DF 25. I just purchased one in the Seattle area and am interested in comparing notes with other owners. Do you still have yours? It sounds like you were kind of sold on the boat.

Mine (named Radio Flyer) is in need of a little deferred maintenance and some core repair, but I figure I'll use it to make the most of the summer weather and then address those issues when the rainy weather returns in October.

I'm interested in locating some documentation for set-up and trailering the boat. Would you happen to know of any? Mine is a DF 25 MkI, not the swing-wing.

Thanks for any help you can provide.

Alex Zecha

Bellingham, Washington

**Roger H Strube, MD**

June 8, 2011

A friend (Tom Anderson) purchased a Dragonfly several years ago. The boat was completely disassembled as the owner was in the process of painting. The hulls are in excellent condition. Over the next several weeks, Tom and I will polish and paint the hulls and hopefully put the pieces back together. I will try to post some pictures on my website as the project progresses.

Roger H Strube, MD (retired)

<http://www.rogerhstrubemd.com>

**Ken Mills**

August 23, 2017

Hello Mike

I had a Dragonfly 800 mk2 "Vamos" in Bunbury Western Australia for 9 years. A fantastic boat which I raced with my son. This year a t-ball fitting on the starboard front waterstay failed and we capsized in 30 knots. I had to jettison the mast and lost the s/b AMA. We got the boat back to shore without the AMA and with a hole in the main hull. On inspection the t-ball was found to be faulty. I have just sold the boat with the mast and AMA which we eventually salvaged. I am sure it will be on the water again. The Dragonfly is such a beautiful well balanced extremely fast boat to sail. It is also a great day boat with the large trampolines giving plenty of lounging room. The main drawback is the heavy mast and difficulty of raising and lowering it.

The Dragonfly never scared me, I had complete trust in it even in really strong winds.

A great boat.

Regards

Ken Mills

Bunbury Australia

**'BJ'**

October 24, 2019

I've just bought a dismantled and damaged Dragonfly 8 M swing wing and ask if any one has a folding rope plan, as ( unfortunately my new toy is folding not demountable). A water stay fitting broke like Magic Hempel and I bought it at the accordingly reduced price. Ironically I was given a mould that someone else 'fopped' and I needed a mould for the broken beam. I'm in the process of fixing it right now, (October 2019) may go sailing at xmas time.

**brian eiland**

April 9, 2020

I was the original importer of the Dragonfly trimarans to the USA...in 1986-87

<http://www.runningtideyachts.com/trimaran/>

Back in 1986-87, Chesapeake Catamaran was searching throughout Europe for production multihulls that might be marketable in the USA (something other than the Prouts and Catalacs of the time). We settled on two, the Fountain/Pajot cats from France, and the Dragonfly tri from Denmark. We imported a sample of each and embarked on a concentrated marketing campaign.

The smaller trailerable Dragonfly tri was very well received. The product, along with our aggressive marketing, produced 2 deposits before the first boat ever arrived in the US! Subsequent exposure in the fall and spring shows resulted in another 10 deposits for this design. We had picked a winner! Regrettably the manufacture was totally unable to supply those boats. His European orders had increased dramatically, and he could not/did not physically expand his production capacity to meet our needs, nor those of his other new importer in Canada. I had predicted such a possibility during my original talks with the manufacturer, but was assured that this was not a problem should we receive orders. Nine months of negotiations still resulted in no boats for our market, nor even a hope for any. Our frustration and that of the Canadian gentleman grew exponentially.

2/15/23, 7:38 PM

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With half the deposits still on board, we set about the project to redesign the boat for the North American market. We incorporated numerous changes based on both our considerable past experiences with multihull craft, Brian Eiland's previous sailing design studies, and very importantly, the public's feedback responses. We had often encouraged our manufactures to listen to their potential client, even while they tried to sell them their product. A number of our modifications in redesign were a direct result of listening to the public feedback gained at the numerous boat show exhibits and demonstration sails:.....more

# Small Trimaran Folding Systems (part 1)

October 29, 2008

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Dragonfly trimaran folding system, Farrier Folding System, Small Trimaran Folding Systems, Trimaran Folding System

No Comments



## Small Trimaran Folding Systems (part2)

October 29, 2008

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: small trimaran folding system, trimaran connective system, Trimaran Crossbeams, trimaran folding systems

No Comments

## Windrider Trimarans Mix "Wilderness" & "High-Tech"

November 12, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Gougeon Brothers, Gougeon Brothers epoxy, Polyethylene hull, polyethylene trimaran, Windrider 16 trimaran, Windrider 17 trimaran, Windrider Rave, Windrider Rave Trimaran, windrider trimaran, Windrider Trimarans

### Comments

**Claude finet**

September 27, 2015

Pléiade calme at33 0495 534633 i m'inventer Of trimaranof idéal

Im frecenche men living in in corsicai Island

Im wouldlike to work with YouTube im rendu to move im seniior Also.

But singe

Best regards

# How to Set Up a Weta Trimaran in 15 Minutes

November 12, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: The Weta, Weta, Weta Marine, Weta Small Trimaran, Weta trimaran, Weta West

No Comments

# Practicing the “Art of Sailing” in a Warren 23 Trimaran

November 13, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Ted Warren, Ted Warren trimaran, Ted Warren Trimarans, Warren 23 trimaran, Warren multihulls

No Comments

# Astus Trimaran Video Clips

November 14, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Astus 14 trimaran, Astus 16 trimaran, Astus 20 trimaran, Astus 22 trimaran, Astus Boats, Astus trimaran, Astus trimarans

No Comments

## Small Trimaran Reference Links

November 18, 2008

Categories: Small Tri Info - All

Tags: small trimaran, small trimarans, trimaran, trimaran designer, trimaran plans, trimarans

No Comments

# What are “Small” Trimarans?

November 18, 2008

Categories: Small Tri Info - All

Tags: Add new tag, small trimaran, small trimarans, trimaran, trimaran sailboat, trimaran sailboats, trimarans

No Comments

# Small Trimaran Classifications (Non-Official)

November 18, 2008

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: classify multihulls, classify trimarans, multihull classifications, sailing classifications, trimaran classifications

## Comments

**Mark Harrison**

November 20, 2008

Hi Joe,

In say, class d day sailor are there 'rules of thumb' reference points for the length of the aka's and ama's in relation to the Vaka?

What multiple uplift would you get in sail size as an average over a monohull and finally. if you do know, what if you wanted a main, mizzen, gennaker where should the masts be in relation to the vaka - if I have the correct terminology - in other words the main central boat?

Could you point me to any info in this area? Is it you:)

Kind regards

Mark

**Small Tri Guy**

November 20, 2008

Hi Mark,

Since the above "classifications" are all unofficial and theoretical, then there are no rules of thumb per se. The size of trimaran amas, akas and vaka hull are relational to every boat's individual design. Ama length is also one of many design specifications for each boat.

Amas that are "too long," or "too narrow," would negatively affect trimaran performance and ability to sail. Trimaran designers critically assess these factors, among many others, when creating a new sailboat.

As to sail rigging, the positions of the main, mizzen, etc., are designed in relation to a boat's center of lateral resistance ... which also takes into account the centerboard (or daggerboard). In other words, each boat is designed differently.

Where would you "find" such information? I would suggest looking up books on Multihull Design" on Amazon. I know Chris White has one. Another name that comes to mind is Thomas Firth Jones. Those books (among others) should talk about many of the "how-to" and "why" issues involved in multihull design.

**Mark Harrison**

November 21, 2008

Thanks Joe. Thats my Xmas book list sorted!

**Eric**

December 27, 2008

What about a NT for "nautical trek" or MC for "micro-cruiser" class? And I won't speak of a CCNCAAPW, for "completely-crazy-no-comfort-at-all-permanently-wet" class :-D  
But there is a lot of difference between an Astus 18 and a modified canoe...



# Lock Crowther's Buccaneer 24 Trimaran

November 21, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Buccaneer 24 Trimaran, Buccaneer Trimaran, Crowther Buccaneer 24 Trimaran, Crowther Buccaneer Trimaran, Lock Crowther Trimaran, Lock Crowther trimaran design

## Comments

**Joe**

September 29, 2009

I love these little tris. Really simple and honest boats.

Here's a neat vid of The Green Death Trap (formerly Capricorn) on youtube:

<http://www.youtube.com/watch?v=Z-lgC4WBk6Y>



# How Did Boat Design Develop?

November 21, 2008

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: boat design, history of boat design, model tank test, model tank testing, trimaran boat design

No Comments

# Do Trimarans Plane?

November 21, 2008

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: planing sailboat, trimaran planing

## Comments

**Stefano**

August 27, 2009

Do trimarans or any other slender hull, such as a cat or even a kayak, plane ?

My gathered notion of planing speed is when hull displacement speed is exceeded (semi planing) or thoroughly exceeded.

I.e., if I have a 16 ft lwl hull, I would expect it to go at a maximum of  $1.34 * \text{square root of } 16$ , which gives a figure of 5.36 knots (  $1.34 * 4$ ).

Now, if I'm clocking 6 knots it's about normal on a slender hull, but if I'm doing 8 or 9, or more, this is way beyond the displacement speed limit. The hull is on a plane, the aft wave produced in displacement mode, is far aft of the stern, and the drag is greatly reduced.

This can happen at wind bursts, and the hull will go from semi-planing mode into planing one (read stepless plane hulls by Julian or Frank Betwaithe, designer of 49er) and backwards, but if the wind is strong and constant enough, the plane will be endless, If you have a sheltered bay and no waves you can really enjoy it :-)

This happens even in human propelled boats in appropriate conditions (surf skis and sea kayaks) , when wind and waves, even small ones, are pushing the boat beyond displacement speeds. Trim is of the utmost importance here.

# Trimaran Sailing for those with Disabilities

November 21, 2008

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Challenger trimaran, disabled sailing trimarans, Duck Flat Wooden Boats, eosvela trimaran, Marples, Marples Seaclipper 10, Marples Seaclipper 10 trimaran, Marples Seaclipper 16, Marples Seaclipper trimaran, Marples Seaclipper trimarans

## Comments

**Paul**

January 27, 2014

You should also look at the GT version of the Weta 4.4 Trimaran which features a drop-in DSA seat for the production Weta 4.4 that doesn't require any modifications to the original product.

<http://www.sailabilityinternational.org/data/sailability/weta/weta.html?>

# Disabled Sailing and Tristan Jones

November 23, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: sailing for the disabled, sailing with disabilities, sailors with disabilities, Tristan Jones

No Comments

## Small Trimaran Links (Production Boats)

November 24, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: adventure trimaran, Astus trimarans, Catri 24 Trimaran, Challenger trimaran, Corsair 24 Trimaran, Corsair 750 trimaran, Farrier 22 Trimaran, Magnum trimarans, Sea Pearl Trimarans, Telstar 28 Trimaran

No Comments

# Small Trimaran Links (Self-Built Boats)

November 26, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Beach Tri 22, Davitri 6m, Davitri 6m trimaran, Discovery 20 trimaran, Eric Henseval, Eric Henseval Sardine Run trimaran, Horstman Tristar 18 trimaran, Hughes 16 trimaran, Hughes 20 trimaran, Hughes 23 trimaran

## Comments

**Jim Wilkins**

February 24, 2011

I am looking for the designer and builder of a 21 ft folding tri built in Michigan. They used a shark 21ft cat for main hull and a prindle for the outer hulls. It has been in my back yard for 7 years and I need to do something with it but I cannot find the guy I bought it from and I cannot find anything name reg. I have the registration numbers MC 6800 PW but the Secretary of state will not give me anything on it. Can you help.

Thanks Jim

**John**

May 16, 2016

Hi SmallTriGuy, have you updated this list of small trimaran plans as of 2016? Would be great to know what build options are currently available?

Also, separate question: would you say demand for home-built tri's has increased or decreased since you've been running this blog?

**Small Tri Guy**

May 16, 2016

Hi John,

I haven't updated a list of self-built boats for 2016. That's a good idea.

I think "demand" for these boats is about the same in general, although most guys don't want to take the time to build their own boats. There is a lot of boatbuilding going on with smaller, more inexpensive, boats these days (meaning kayaks and very small sailboats). I think that is a reflection of the desire to save money and time.

**John**

May 16, 2016

Thanks mate. I've been doing a bit of research on small tri's and found there's a lot of guys trying their hand at home design/build to keep total cost and build complexity down.

Do you know of any plans for an economical & simple to build trimaran in the 18-24ft range with modern lines? Preferably one capable of up to 4-5 people for day sailing and 2-3 people for camp cruising at reasonable speed.

I like Gary Dierking's polynesian outriggers for their simple construction but not their aesthetics or rig options. Lateen's and gunter's are great but give me a marconi rig any day!

Great work on the blog though, I'm on here just about everyday reading about the latest trimaran project.

**Small Tri Guy**

May 17, 2016

Hi John,

John Marples has small tris in his "Seaclipper Series" that fit what you're looking for – <http://www.searunner.com/index.php/designs/seaclipper-trimarans> ... and also ... Richard Woods – <http://www.sailingcatamarans.com/index.php/designs/27-trimarans-under-25>

# Multi Marine's L7 Trimaran

November 26, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: L7 Trimaran, Mike Leneman

## Comments

**Nigel Phillips**

June 20, 2016

Very interesting about the construction method. Unfortunately the link is now a dead end. Any chance of an update or link repair?

**Small Tri Guy**

June 21, 2016

Hi Nigel,

I was able to update the post a bit. The old link with the photos of the hull pans is dead, as you mentioned. But I replaced that link with a webpage featuring the L7 on MultiMarine's website. I also added the YouTube video I found there.

**David G.**

April 2, 2017

There is still an article on the West System site that has the pdf article with all the pictures on constructing the L-7.

Here's the link: <http://www.westsystem.com/ss/assets/Uploads/DevelopingMultihulls.pdf>

**Small Tri Guy**

April 2, 2017

Thanks for sharing that great link David!



## More on Pre-fabricated "Fiberglass Pans" for Hull Construction

November 29, 2008

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Don Karmin, Karmin catamaran, L7, L7 Trimaran, Magic Hempel, trimaran hull construction

No Comments

# When a Tornado becomes a Trinado Trimaran

December 5, 2008

Categories: Small Tri Info - All

Tags: Russell Brown, Tornado catamaran, Trinado trimaran

## Comments

**Mark Harrison**

December 7, 2008

WOW- cool looking boat. I want one of those but trailerable.....such a cool machine.

**Mark Harrison**

December 10, 2008

Is it possible to have plans of this with a folding amas?

**Small Tri Guy**

December 10, 2008

As of right now there are no plans in the works for offering this boat with folding amas (or otherwise). I share the story about this boat in the upcoming Small Trimarans book.

**tim moll**

December 11, 2008

Are plans available for the trinado main hull ?

Thanks

tim

**Small Tri Guy**

December 11, 2008

Not at present.

# The Classic Tremolino Trimaran is Reborn

December 9, 2008

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Dick Newick, Newick Tremolino, Newick trimaran, Tremolino, Tremolino trimaran

## Comments

**Nino de Casa**

August 9, 2009

Hello. Please may I have the e-mail of Tremolino boats co.? The link "contact" from the factory's site doesn't work ? Thank You very much.

Nino de Casa

**Small Tri Guy**

August 10, 2009

Hi Nino,

Currently, there is no "Tremolino Boat Co." The only way to get a Tremolino is to build your own (using Dick Newick's plans) or buy one that has already been built.

There was an active Tremolino Yahoo group that may be able to inspire you to do one or the other at ... <http://groups.yahoo.com/group/tremolino/>

— Small Tri Guy

**Tremsetter**

January 5, 2010

Please note that Tremolino's website has a new address:

<http://www.TremolinoTri.com>

**Brian Oh'Brian**

August 26, 2010

Hi! Tri! Guy! When I bought the Hull # 70 in New Jersey, I took the Maiden Voyage in Barnegat bay. At that time 2 different Cat Boat Fleets were Racing at a Stately 5 Knots. I was able to Orbit the fleets in my John Olin Built VACA and Hobie 16 Amas.

Had it for 25 years. Might like to sell it to a True Tri-Maran enthusiast.

Brian Oh'Brian

**Jerold R. Rice**

March 11, 2013

I have one of the early Tremolinos, but not clamps to clamp that cross-arm to the hull. Does anyone know where I can obtain a pair or have a drawing of the clamps so I can make my own ??? Jerry Rice

**Jerold R. Rice**

June 8, 2013

I have an old Tremoline hull with the Hobby floats. I do not have the cross-arm clamps. Anyone know how they are made, or where I can buy some ??

I also have no idea how the short pipe sections on the port side can be used to hold an outboard motor. Any plans, pictures or drawing ??

Jerry rice

**Small Tri Guy**

June 9, 2013

Hi Jerold,

Dick Newick himself would be able to help you out, I am pretty sure ;-)

If I were you I'd contact him thru his website at <http://www.wingo.com/newick/>

**Serge**

October 2, 2013

Jerold,

Go search the Tremsetters' yahoo group archives - people had come up with some solutions for the corner castings, including casting new pieces in a foundry.

Serge

**Pat Newick**

April 22, 2015

Plans for Tremolino are still available, although I'm not advertising, just providing limited service to seriously interested

multihull sailors. We've combined plans into one set for \$700.00,

a cost reduction because Dick isn't here to discuss his plans.

Pat Newick

**Pat Newick**

June 21, 2015

I've reduced the Tremolino plans to \$500.00. This includes

drawings and revisions. After Dick died in 2013, it was too

difficult for me to offer separate variations.

Because of the ongoing interest in Tremolino, I'm making this

combined set of plans available in blueprint, or digital form.

Pat Newick

**vitaliy**

June 23, 2015

hello. how i can order tremolino plan, and valiii plan?

**Small Tri Guy**

June 23, 2015

Hi Vitaliy,

I will contact Pat Newick and see what contact info she'd like for me to post so you (and others) can contact her regarding building plans.

**Vitaliy**

June 24, 2015

Tank you, Small Tri Guy.

**Andrew Bartholomew**

June 22, 2016

I'm currently working up a demountable cedar core Trem 26 with Dick's latest lines and Pat's approval. My particular intention is simplicity and seagoing strength. I'm looking for contributions toward engineering fees and would share the results after the US\$500 for Pat. I live on the east coast of Australia where my Trem will be built and would consider joint ownership.

**Glenn Edens**

January 27, 2017

I am considering buying one on which my wife and I can learn sailing.

Would you recommend this boat for someone as a starter boat?

How much would you expect to pay for a full package with trailer, mid 90's factory built model?

**Small Tri Guy**

January 27, 2017

Glenn,

The Tremolino probably would not be regarded as a "starter boat" ... although it probably wouldn't take a new sailor too long to figure things out with an experienced sailor showing them the ropes. The price would depend upon the condition of the boat. It could range from a few thousand to more thousands.

**Joanne Salvador**

February 10, 2017

Hi Pat - my deepest sympathy on the death of Dick. I was the nurse out on the Vineyard in the mid 80's when his nephew Rick was there. Just the two of us worked on 'Pat's' while it was up in the woods near your home! Then we moved it all shown to the shore. I was thrilled the America Cup in Multihulls. I know Dick was happy. I hope all is good with you and your family. Love to all ... I would like to buy a Tremolino/ Seagull

Trimaran. I'm looking.. in the meanwhile I would like to purchase the plans from you. Are they still available?

**Small Tri Guy**

February 10, 2017

Hi Joanne,

Yes, Pat still sells those plans. I have forwarded your message to her ... she will probably reply to you regarding details about those building plans.

**Pascal. Blotiau**

July 21, 2017

I'm a catamaran sailor and looking at a tremolino with hobie 16 amas I read that the buoyancy of these hull are not to good and I also know as I sail hobie 16 for a long time.but how bad are these bulls on the tremolino and could they be replaced by another type of cat

I sail often in wind over 20 knots is it reasonable to leave the boat that way

Thank you very much

Pascal

**willem bezemer**

February 13, 2018

Have a 41ft. 1968 Piver Tri(later design) .Boat moored San Pedro, sails in Houston, 50hp.Pathfinder diesel rebuild expertly-perfect. have total history,bills. "startrek" won almost all La. Ensenada races it entered.check it out. Will need some work, sails fair. Will take a Tremolino and/or cash in trade. evenings 8'00 pm.to 9:00 pm central only

**ANDREA LORUSSO**

November 1, 2021

Hello,

I'm Andrea and I live in Venice (Italy). Somebody knows wich shipyard or private can built the new Trem if I buy the plans from PAT?

Many thaks

andrea

# A Sleek-Looking Barracuda Trimaran from Denmark

December 15, 2008

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Barracuda trimaran, VisionBoats.com

## Comments

**Corey Griffin**

December 23, 2010

Hello,

I have been very interested in Trimarans for a long time now. Finally I have found one that really suits me. I am wondering though if it is possible to see a drawing of the layout and if the plans are still available.

Regards

C. Griffin

**Small Tri Guy**

December 23, 2010

Hi Corey,

As far as I know, you can still contact the designer (mentioned above) regarding the plans for this boat. The contact page at his website is at <http://www.visionboats.com/>

## 3 Windrider Trimaran Videos

December 20, 2008

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: windrider trimaran, Windrider trimaran video, Windrider trimaran videos, Windrider Trimarans

### Comments

**Phelps Holloway**

December 24, 2008

What a treat! I've always thought of Jim Brown with great affection. Seeing these films and hearing his voice was such an affirmation. He's just like I thought he would be. Anyway, thanks to Jim for helping people since the early days of (modern) multihull sailing.

**Jim Weitzmann**

July 12, 2009

You have convinced me this is the boat for me. I was going to sail a banshee. Around the Great Lakes. I am now on a mission of the Wave 17. I also saw you could reef the main on the 17. This was the final tipping scale.

Thanks,

Jim (keep sailing).

**Todd**

June 16, 2010

Beware of poly boats. Very heavy and not a stiff material. It takes four men to carry the W17 up a beach. It is not shallow draft.

**Small Tri Guy**

June 17, 2010

Hi Todd,

There are surely some trade offs with using poly to build a boat. I don't know that the Windriders' weight, however, is any greater than most other plywood/epoxy trimarans of similar size featuring large amas. The designed weight for a Seaclipper 16, for example, is a bit heavier than a W17.

# The Easiest Small Trimaran to Build?

January 2, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: K24T, K24T trimaran, Kismet 24 trimaran, Kismet multihull, Kristofferson multihull, Kristofferson trimaran

## Comments

### Barry Ellery

January 13, 2009

Waiting on study plans from Bill. Any additional enquiries will assist in getting Bill to complete some upgrading of his plans as he has informed me as the status.

### Small Tri Guy

January 13, 2009

That is great news Barry. I hope that Bill receives a lot of inquiries about the K24T from readers of this blog. For anyone concerned that Bill's hull design may not be "rounded" enough (i.e. too much wetted surface) ... may I encourage you to read a great article by Michael Waters about the issue of hull shape at

<http://www.smalltrimarandesign.com/Trimaran-Articles/Trimaran-Hull-Performance.html>

### Barry Ellery

January 14, 2009

Interesting article. Fast build hard chine hulls like seaclipper have deep v keels. Crowther Buccaneer is hard chine but more rounded and Cross has a shallow v hull that looks simple and fast build. Some plans, however are becoming impossible to acquire. Younger designers are needed to pick up these threads so that the plywood, cold moulded or strip plank combination low tech materials trimarans continue to be built. If someone is interested to indulge in this one, I would like to talk to them. I have been waiting on Bill for over 4 months, Jeff Turner has not replied in nearly two months I am close to ordering seaclipper or searunner plans. If it is true that no searunner has turtled, the compromise in speed for cruising given this factor may be worthwhile as average sailing speed is reduced when you turtle. Your comments on the hull section of a double chined v as a compromise against a simple v form appreciated. Further comments on a narrow but shallow draft hard chined v that fits closely to section proportions of a rounded hullform (with added Chris White or Norman Cross shallow keel plus centreboard / daggerboard) would be highly appreciated.

### Greg Walter

March 11, 2009

Hi Barry and Site maestro,

This site is an interesting place to visit. I checked out the K24 (still waiting for the material list promised 4 years ago). personally I think the main hull is too fat (8:1 WL from memory) Bucc 24 is similar, trench and pod, with the wrap around construction method and is a bit leaner – probably faster but less payload.

There are other multihull designers beaver away in far-flung corners, with the axiom of safe, simple and cheap (insofar as any boat can be cheap). After casting around for years I've just begun building a 25 foot ply trimaran. Its a Delaveau Nicky Cruz 25. Similar interior layout to an F24 (doesn't fold though) with a square step in the topsides rather than a flare. I was drawing similar boats for a few years but never got the proportions right. Graeme has nailed it I think.

If you want to have a look go to Multihull\_Boatbuilder and check files under Nicky Cruz.

### Small Tri Guy

March 11, 2009

Thanks for the info regarding the Nicky Cruz 25 trimaran Greg.

(The forum address Greg is referring to is located at [http://groups.yahoo.com/group/multihull\\_boatbuilder/](http://groups.yahoo.com/group/multihull_boatbuilder/) ... there is a file within the group that you will be able to access after joining that contains information about the Nicky Cruz 25 trimaran).

### Pippo Bianco

May 6, 2009

Just purchased the e-book and was delighted to read the bonus chapter devoted to the K24T, which is one of my favourite boats. I currently sail a 15' plastic trimaran (the danish "Supernova") which is a lot of fun, but would love a more substantial boat to build by myself. I've been in touch with Bill via email but the process is VERY slow ;-)  
Anyway, I succeeded in getting one PDF page from Bill showing the K24T sail plans, front and top views with the main dimensions. I really like the boat and would insist with Bill in order to buy a set of plans from him. The price at 660 \$ is a bit on the high side though... :-)

### Pat O

August 7, 2009

Pippo Bianco, is there any chance of you emailing the one PDF page of the K24T sail plans, front & top views with the main dimensions. I sure would appreciate it. My nephew wants to scale down the plans and make a K24T model. (Not a real K24T—just a model. Maybe someday the real K24T.) I have unsuccessfully spend all day surfing the net trying to locate free 3D drawings (top, side, front) study plans of trimarans. He was also interested in the Norman Cross 35' or 40' trimaran designs but have also been unsuccessful there. I read your May 6th, 2009 posting and instantly smiled with a glow of hope. Let me know. Do you know of any other sites that might be helpful.

Thanks – Pat O – pato@suddenlink.net

### John

June 17, 2010

Hi Joe

have been trying to get to Bill web site. Looks like it is down. Do you know anything?

### Small Tri Guy

June 18, 2010

Hi Guys,

Bill's website is now down. I haven't heard from him for awhile now. I will post relevant info if I do hear from our Canadian friend — the designer of the K24T.

**Patrick McGrath**

October 21, 2010

Lock Crowther was my business partner for 11 years and a dear friend for 27 years.

Of all the wonderful multihulls which he designed, the Buccaneer 24 was the most succesful in the terms of how many plans were sold—but more importantly how many actually got built, sailed, cruised and raced.

Although Lock is gone , as is his company, the Buccaneer 24 plans are still available, including on going advice backup.

To my knowledge at least 200 were built, which probably outnumber any other home build Tri in this class.

Although the design is forty years old it is still up to the present day mark in terms of simplicity of construction, longevity, suitability for it's design target (Fast 3 berth Cruiser), and above all –Seaworthyness. Many, including mine, have been very successfully raced.

Some people balk at the idea of alloy crossbeams, but it really is so simple. Every country has an alloy manufacturer (Alcoa, Alcan etc:) who can provide stock alloy tubing, cut to size, drilled and triple anodised so that all the builder has to do is bolt it in place. That includes the mast, boom, Spinnaker pole, (or better still the modern day "Prodder").

Full size patterns are included in the plans, not just for the frames but for all the required metal fittings, so the builder can make them himself if he wants to.

Sailplan shapes and sizes—including the sailcloth weights for each sail are likewise included. And to top it off the whole boat can be built in 500 man hours of well planned work. This boat is NOT folding, but it is demountable for trailing. A friend of mine built and sailed his B24 in Toronto Canada. He de-mounted it onto a standard trailer and drove it down to Florida for a two week holiday. He trailed it back just in time for the start of the spring launching in Toronto, a smart way to extend the sailing season in that clime where the water goes solid for six months of the year.

For a small trimaran it's payload capacity is perfectly adequate for it's size and the well designed cockpit is remarkably dry if built as shown in the plans.

All in all the Buccaneer 24 Trimaran should not be overlooked.

**marvin mc cord**

June 29, 2014

How much does the complete boat cost to build ?

**Small Tri Guy**

June 30, 2014

Hi Marvin,

I am sure that the costs for a boat like this are much higher than when the plans were first drawn up. Wood, glass and epoxy costs are just the beginning. The hard costs to gauge are for the hardware and rigging, which can be quite expensive (or not) depending upon where you source those parts. The real shame is that, to my knowledge, Bill no longer offers K24 plans for sale. His old webpage is down and there is no way to get a hold of him ... that I know about anyway. If anyone does see his contact info posted anywhere on the web then please reply to this comment on this page and share the web link.

**Alain**

March 5, 2015

<http://www.kristofcarvings.ca/k24t.html>



# A Newick Somersault 26 (or Outrigger 26)

January 12, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Add new tag, Dick Newick trimaran, Dick Newick trimaran design, Outrigger 26, Outrigger 26 trimaran, Somersault 26, Somersault 26 trimaran

## Comments

### **Olivier Blanc**

August 6, 2009

Hello Mitchel, nice boat!

I sailed a weekend on Lake Champlain last year, launched at Point aux Roches state park.

I would like to go again later this summer. Any tips on where to launch? We could do a 2 boat cruise maybe?

I am in Montreal. It takes me about 1h30 to launch single handed. The longest is to rig the boat.

Olivier (scarab22)

### **Mike Waters**

September 30, 2009

Reply for Olivier

Hi Olivier

I am on Lake Champlain, though perhaps its too late for this year.

I can direct you to a good launching site, with space to spread out and a decent, wide, cement launching ramp. If the timing is right, be pleased to also help you set up.

(Also have a tri mooring not being used much since I sold my Dragonfly). Not far south of Alburgh, VT so only about 20 mins south of the border. 70 mins from Pont Champlain.

email me for info

cheers

mike

wate100 @ earthlink .net

### **Philip Beck**

November 16, 2009

Does anyone know of an outrigger 26 currently on the market? The Yellow one has been sold.

### **Richard Bokkerink**

January 13, 2010

To Mitchell Hay,

Just a brief message to let you know that after 15 years of sailing in the Caribbean (with the previous owner) , I have transported an old but restorable newick outrigger 26 to Holland. I will try to bring this boat back to "as new" condition these coming years as indeed this is a wonderful sailing machine. I think I can say this after owning an F31 for many years.

Now I wonder how many of the old outriggers are left to your knowledge adding this one to it.

greetings

Richard Bokkerink

Holland

### **Pete Shaw**

February 22, 2010

Where can you purchase the Outrigger 26 in the USA??

### **Small Tri Guy**

February 22, 2010

Good Question Pete. My advice would be to contact Dick Newick about this via his website: <http://www.wingo.com/newick/>

### **Fred Goldfarb**

March 9, 2010

Years back I knew the builders of the Outrigger 26. It was built in an industrial loft in the North side of Chicago. Eventually they moved to the Eastern Shore of the Chesapeake and we lost touch. I still have original brochures for the boat, should anyone be interested.

### **Ed Kelly**

March 10, 2010

Note to Fred Goldfarb: I'd like to see the Outrigger 26 brochure, and learn what you know about the builders and their experiences. I'm always amazed at what little commercial success multihulls of this type have in the marketplace. While difficult to build, there must also be weak demand. As they say, no accounting for taste! Cheers, Ed Kelly Seattle.

### **Small Tri Guy**

March 11, 2010

Hi Ed, I've actually been corresponding a bit with Fred about the Outrigger 26 trimaran brochure. If he sends it to me then I'll post a link to it here.

### **Daniel Collins**

August 15, 2010

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Hello Michel, nice boat!

I sailed the 01/08/2010 at 12/08/2010 on Lake Champlain Ausable Pin State Park with your Tremolino 23 (very happy this boat) I would like the picture inside outside the your boat or brochure trimaran Outrigger 26(where I can buy) sorry my english

Thank you

**Daniel Collins**

September 22, 2010

Please Mitchell Hay contact me Daniel the St-Sulpice your Tremolino 23 I like to see somersault 26 I have vacancy 24/09/2010 at 10/10/2010 Thank you ( coldaniel AT videotron DOT ca )

**Small Tri Guy**

December 7, 2010

Ed, thanks to Fred, you can find a brochure for the Outrigger 26 trimaran at: <http://www.smalltrimarans.com/info/Outrigger-26-Trimaran-Brochure.pdf>

**Bjarke**

March 13, 2015

There is one sailing on the IJsselmeer in Netherlands, Wawaru: <https://www.youtube.com/watch?v=OsKqZxBy4yQ>

**Richard**

August 16, 2017

Anyone know of Outrigger/somersault plans/drawings – I have been in touch with Pat Newick who only has Tremolino plans available. Any help would be appreciated. I plan on building along similar lines and need some dimensions/plans to work from.

Thaks in anticipation

**François Lavigne**

November 1, 2019

Good morning,

what is the best folding mechanism for Trailable 25 feet habitable trimarans?

**Small Tri Guy**

November 1, 2019

I don't know that there is "one" best folding mechanism François.

**Brandon Scherling**

January 1, 2022

Any one selling one of these fantastic boats in the states?

# Z65 Trimaran Designed to be Economical

January 12, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chris Ostlind, Ostlind trimaran, Ostlind trimaran design, Z65 trimaran

No Comments

# Ever Hear of the Supernova Trimaran?

January 15, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Supernova trimaran, Supernova trimaran pictures

## Comments

### **Pippo Bianco**

May 9, 2009

I have a Supernova trimaran which is a very cool boat. Very light (I launch it singlehanded from a sandy beach) and very weight sensitive. Needs a bit to get used to the jib sheeting circuit, but once understood it can be made to point reasonably high. I still treasure in my memory a two hour ride along the coast in a gorgeous day with my two children aboard during which we passed a HobieCat 15' and covered about 15 miles of ground.

### **john lonczak**

June 4, 2009

Hello - Yes, I had seen the supernova in the late 70's and spoke to them about becoming a sales rep. Somewhere I have a Supernova binder with comprehensive info. I was attracted to it because of the scale and cartopability. However, I decided not to purchase one or get involved in sales. At the time, the price point pushed it beyond market interest. Shipping and duties really put it over the edge. I still think it is a cool boat and could be interested in one again.

### **Small Tri Guy**

June 4, 2009

I'd love to see that binder with Supernova trimaran information.

### **Graham**

June 8, 2009

I have a supernova Trimaran here in New Zealand complete with brochures etc. The Aluminium trampoline is broken at the mast step. (weak point I expect). We were sailing in about 20knots of wind at the time and we cartwheeled the boat. The wind was so strong that we could not get the boat upright and the constant seesawing of waves and water against the boat cracked and then broke the main aluminium frame. I will fix it one day. The boat was extremely fast and a lot of fun to sail.

### **Glenn**

June 10, 2009

I own one of these beasts and have since 1991...it was imported by a dutch furniture importer who had an empty container and shipped 2 of them ... one he kept and the other he sold...and i in turn purchased... I still have it and have had to do several repairs over the years... i love this boat and it truly is a great design... i have sailed with as many as 6 people and as few as myself.... it can be extremely fast and I have walked all over Hobie Cats..

### **Anders**

June 29, 2009

Hi,

I have recently bought a Supernova but have lost the centerboard!! Is it anyone out there who could help me with a figure of the centerboard and dimensions?

My self as well as the Supernova is located in Sweden and the weather is just great for sailing!

My email is anders.johnson @ lexargi.se

Looking forward to your support.

### **Aksel**

July 14, 2009

I remember the Supernova being the cool boy's toy back in the day but now the second hand prices are low (if they sell at all) here in Denmark - the main reason probably being lack of spare parts and equipment.

The Supernova amas have quite low buoyancy and their attachment to the tramp is flimsy. Some compromises had to be made to easily put the Supernova on top of a car which i guess was a basic premise for the Supernova. The mast is a bit fragile and I have seen bent masts. That having been said, the design of the Supernova was innovative and thorough, the build quality of the Supernova is good and the Supernova is fun to sail.

I am contemplating building a set of longer amas and attaching them firmly to the trampoline. Speed will likely go down but I hope to sail more comfortably through larger waves without flipping over.

### **Dan Roy Andersen**

July 31, 2009

Ip Pors Nielsen is designer of Supernova. He was team manager for the Danish C-class projekt "sleipner" and made another very fast c-class with a large wing, based on a shock-resistant well bearing of womans handballs!

He also designed the 29 feet Fleuret and 33 feet Pinta trimarans. I have built a 26 feet trimaran ( mini Fleuret) from his drawings.

### **Doug Green**

January 28, 2010

I have a four page brochure from the Singapore manufacturer of the Supernova, and profile views of the three colour schemes.

Anyone interested - I'll happily scan it and send it.

Doug

**Mark**

April 2, 2010

I have had a supernova for about 15 years, and I keep it on the river severn in the UK. I was gifted it by my brother in law and rather fell in love with it when I kept it in the solent - but finding the right flat water to sail it on is a problem near Bristol and the severn can be really very choppy and squally. My main practical problem is finding a launch trailer, I am now practiced in borrowing wayfarer's trailers and recruiting someone to hold one of the wings when I launch - any ideas ?!

**Graham Wheeler**

June 11, 2010

I have a Supernova here in New Zealand. I bought it just before Xmas 2009. I sailed it regularly over summer and had great fun. It goes well but myself being light found it a handfull in over 15 knots. Had to be on my toes. It has given me the trimaran bug and I recently bought a Farrier 18 which I am currently doing up. Hope to have it ready for next summer. I will keep the supernova as well. My contact is : gdw AT orcon DOT net.nz for anyone with a supernova or farrier 18 who wants to exchange thoughts.

Cheers, Graham

**Bruce Greig**

March 21, 2012

I currently own and sail a super nova here in tin can bay, queensland, australia

as a fibreglass boat builder i am considering building a small tri and would like any feedback on super nova designs good & bad,

feel free to contact me at:

[brucegreig1@bigpond.com](mailto:brucegreig1@bigpond.com).....smooth & level sailing

**Peter B**

March 22, 2012

Hi,

I am based in Sydney Australia and just bought (yesterday) a Supernova. Have taken it for a few sails in 18+ knot winds and its a rocket. I cant wait to get to know how to handle the boat. Its a beast !

I am interested in understanding what type of clips are used to secure the Trampoline to the hull and ammas. I am using spring clips secured with a cable tie. These work fine even in strong winds. Below is a link to a picture of one similar to what I am using.

[http://shop.smartkat.at/product\\_info.php?cPath=21\\_34&products\\_id=172](http://shop.smartkat.at/product_info.php?cPath=21_34&products_id=172)

I am keen to see what other people use and find out where to source them.

Any info would be most appreciated. Feel free to contact me on [pb290208@gmail.com](mailto:pb290208@gmail.com)

Cheers

**Tommy R**

September 10, 2012

Hi,

I have been offered a Supernova which from your experience seems to be recommendable. One thing though, it's taken apart so I would really appreciate if any of you could send through pictures showing the details of sail, mast etc.. Scanned brochure as proposed by Doug (though a while back) is mostly welcome - Also, even all parts should be there, does anyone have a good place to get spares?

Thanks for your help. [supernova-trimaran@hotmail.com](mailto:supernova-trimaran@hotmail.com)

Cheers

Tommy

**Bruce Greig**

September 13, 2012

Hi Tommy, I have a supernova they seem to be sort after trimarans, I am in australia, if you contact me with your email address, i will attach photos of my boat fully assembled ready to sail,

as for spare parts, it is better to upgrade to new parts that you can adapt easy.

Regards

Bruce Greig

email: [brucegreig1@bigpond.com](mailto:brucegreig1@bigpond.com)

**Ashsupernovatri**

February 10, 2023

I have a supernova trimaran its fun to sail

# A Trimaran Dream Come True (Pt1)...

January 23, 2009

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Dynex Dux, Jim Brown Searunner, Searunner trimaran, SK-60, SK-60 Dynex, SK-75, SK-75 Dynex, synthetic boat rigging, synthetic rigging

## Comments

**Rann Millar**

January 23, 2009

Jack has done a marvelous job on CORAZON. I have watched his progress with his frequent updates on the forum referred to in his article.

I too have a Searunner 34, ETAK, launched originally about the same time as CORAZON (ex "SLICK"). I have met Jack and his wife personally, and am following his footsteps, perhaps a year behind where he is on his work in progress. We will be getting together in the greater Los Angeles area in late spring when he plans to be here, and we will look at rigging ETAK with the same synthetic material. I plan to sail her down to the same area where Jack has his Searunner, so if all goes as planned, there will be two 34s in that area.

Rann Millar,  
Harrisburg, OR (but currently in Southern California where ETAK is moored)

**Small Tri Guy**

January 23, 2009

Hi Rann,

Wow ... now that's really neat. All the best to you and your project! If you guys keep writing cool stuff like this I'm gonna have to start a blog for BIG tris too :-)

**Jeepers Creepers**

November 2, 2010

Jack has done a marvelous job on CORAZON. I have watched his progress with his frequent updates on the forum referred to in his article.

I too have a Searunner 34, ETAK, launched originally about the same time as CORAZON (ex "SLICK"). I have met Jack and his wife personally, and am following his footsteps, perhaps a year behind where he is on his work in progress. We will be getting together in the greater Los Angeles area in late spring when he plans to be here, and we will look at rigging ETAK with the same synthetic material. I plan to sail her down to the same area where Jack has his Searunner, so if all goes as planned, there will be two 34s in that area.

Rann Millar,  
Harrisburg, OR (but currently in Southern California where ETAK is moored)

# Synthetic Lines for Trimarans & All Marine Craft (Pt2)

January 23, 2009

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Duckworks Magazine, DuckworksMagazine.com, Dynex Dux, SK-75, SK-75 Dynex, Synthetic marine rope, synthetic rope

## Comments

### Gene

June 8, 2009

Nice to have found your site. I used Amsteel to replace all the standing rigging on the Hironnelle catamaran (see <http://www.hironnelle-association.org/> and <http://groups.yahoo.com/group/HironnelleCatamarans/?yguid=295052045>) I refurbished two years ago and have been very happy with it. Since the Hironnelle has twin forestays I decided to try a piece of Dynex Dux for one forestay due to its abrasion resistance. I was unable to find a source for 5mm so have used 7mm instead. I plan to replace the other Amsteel forestay with Dynex Dux. Do you have a source in or near Seattle for 5mm Dynex Dux?

I noticed a photo of Bill Kristoffersen's K24T trimaran on your site. Is that the boat you built? I purchased a set of plans from Bill for his 24' catamaran which I still have but decided not to build when I found the Hironnelle.

Spent a week in San Carlos this past March and would love to get back again perhaps in January when the water might be warmer for swimming. Had a nice light wind sail on a chartered Ericson 23 from San Carlos bay to Algodones bay one Sunday afternoon.

Fair Winds,

Gene

### Small Tri Guy

June 8, 2009

Hi Gene,

I was told that Dynex Dux now offers 5 mm line ... [http://www.dynexdux.net/Page\\_2.html](http://www.dynexdux.net/Page_2.html)

You'd probably have to purchase order it directly from: Annapolis Rigging, 7416 Edgewood Road, Annapolis, MD 21403, 410-269-8035

The K24T picture on the site was given to me by Bill K to use with his permission in order to promote the design, which can be found here <http://smalltrimarans.com/plans/K24T-Trimaran-Plans.html>

Thanks for sharing information about your charter in San Carlos.

### Gene

June 10, 2009

Thanks for the link on the Dynex Dux. I found the 5mm at Masterpull in Bellingham, WA <http://www.masterpull.com/> at a lower price and closer to home.

### robin

January 21, 2010

dynex dux and other hampidjan products can be purchased directly from north american distributor. I've been in contact with them regarding rigging a 10 metre sailing vessel.....very helpful and attractive pricing. robin hume, ontario,canada

Hampidjan Canada Ltd.

P.O. Box 580

ConceptionBay Highway

Spaniard's Bay, Newfoundland

Canada, AOA 3X0

Tel: 1-709-786-0855

Toll Free: 1-866-722-9413

Cell: 1-709-685-0967

Fax: 1-709-786-0865

Email: [dkelly@codend.ca](mailto:dkelly@codend.ca)

For sales and info:

E-mail: [info@codend.ca](mailto:info@codend.ca) <http://www.codend.ca/dynex.htm>

# An Alternative to Red Cedar for Boatbuilding

January 24, 2009

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: build trimaran, Paulownia, Paulownia in boatbuilding, trimaran building

## Comments

### **Barry Ellery**

February 28, 2009

I am arranging for paulownia wbp plywood production and strip plank milling. Please contact me if interested.

### **Mike Waters**

November 6, 2009

Any more development on this Paulownia (Kirri) plywood ?

I could potentially be interested if the price is competitive with the options.

regards

mike

Also interested in Paulownia strips to be available in the US or Canada.



# High Performance Trimaran Hull Shapes?

February 2, 2009

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: high performance trimarans, trimaran hull shape, trimaran plan, trimaran plans

## Comments

### Barry Ellery

February 28, 2009

Please advise the comparison on the crowther multi chine and similar wider v hulls such as Crowther Amas and Cross 12 meter hard chine wide approx 45 degree chine hull. WL is below chine so turbulence should not be a factor in fairly smooth seas. I have also heard of monohull aficionados preaching the value of chines.

If we compare round, elliptical and elliptical ending in V like Juniper what is the preference? I have made a half model of the cross v form but compounded it and slightly widened the aft to a flattened radius, am i on the right track?

Judging by the feedback on the boat design web a Buc 28 can keep up with a Farrier in most points of sail. Quite shocking when you try and rationalize the tank tested hi tech composite 40 year advantage.

### Protocomposite

May 14, 2009

Ib Pors Nielsen designed narrow canoe hulls with knuckle before anyone thought of them. He also designed a 35' tri that has a pretty flat bottom dory design main hull and it almost keeps up with F boats. Can any designers please illuminate further why others have not applied this very simple design principle. note the boat had very narrow entry form and omain hull beam ratio was good.

### Stefano

August 27, 2009

Hi to all. I think that in reality things are more complex. V hulls with a dory like flat bottom, but not too narrow ( 1: 10.5 beam/length ratio in my case Népaù, read on this blog) tend to be much slower than U shaped ones coming close to SLR of 1.8, but then, in smaller hulls, where the trim can be easily corrected with crew weight and sail power lift, the bottom of the hull, set at appropriate angle, acts as a foil, and gains lift, reducing section, immersed surface and thus water friction and displacement. So I disagree that speed comparison is even more penalizing V- dory hulls at 2.5 slr.

In fact, I think that there would be great benefit in analysing older semi planing motor hulls, with their stepped hulls, trim tabs etc.

These findings have already been brought into the monohull sailing world with the two wedged hull forms (Finot) in the late seventies and eighties, with chines and steps being now largely introduced in hulls sailing in mid teens and lower twenties knot speeds.

Furthermore, in big 60 ft tris, where the main hull is meant to fly easily, the shape if the latter is a very fine rockered flared V as can be seen on may U-tube videos.

Bottom line: I would investigate more the lifting power of V shaped entry dory hulls, enlarging the bottom aft a bit, and producing slightly more rounded (than flat) shapes by stressing the plywood on the bottom, in order to maximise displacement, surface reduction, and speed potential, while keeping the easiness of construction and gaining the strength to weight allowed by convex surfaces.

### Stefano

August 27, 2009

... and I forgot to mention drag from immersed foils (daggerboard and rudder) and amas, so much more important when in speeds close to and in excess of 10 knots.

In my hard chined hull I can reduce daggerboard immersion by half without losing much pointing ability when speed approaches or is beyond planing. Drag reduction is easily noticeable. I am planning a daggerboard rudder to achieve the same result aft.

### Stefano

August 27, 2009

And sorry, last but by no means least, when discussing hulls speed potential let's not forget the ratio sail area/displacement.

Many of the speed potential increases in boats have been lately gained by wildly over-canvassing quite average hulls (gratest examples in the mini 650 class beaing up to 150 square meters of cloth downwind!).

Again from my experience: 9.2 square meters on 17 ft tri, and you drag along slightly over hull speed. raise the figure to 12 (28 % sail surface increase), and with the same light wind I'm on a constant plane (due also to increase in apparent wind). Sail paln efficiency also matters of course but...

My bottomline: build light yet inherently strong structures ( geometry matters a lot, closed hulls being very rigid as in beach cats), and put lots of sail per displacement. Make sure you can easily reduce sail ( roller reefers, deep reef slabs in the main, cutter rigs), and you're up for a speedy boat :-)

### pogo

March 24, 2010

Some pix of the nielsen 35 u gonna find here:

<http://www.boatdesign.net/forums/multihulls/planing-catamaran-30415-4.html>

The boat has indeed pretty sharp amas and "flat" bottoms for planing.

Originally designed for taking part in Carlsrona speedweek, making at least 30kn average over the 500m strip, she's now mainly used for cruising.

With a cruising deplacement of 2.2m3 she's still able tor reach peaks of 25, while making cruises with averages 16kn.

The boat was really ahead of her time. A lot of her features u find today in different modern designs.

She's as fast as F28Rs , F9A, Df920, Df800 and other Micros. Coming always in under the first three. In a blow and in a wave she's faster than her competitors. On a run,

when the circumstances allow planing, she`s unbeatable .

By the way, she`s not built in ply ! Dyvinicell Sandwich gave her a designed empty weight of 1200kg. Together with the prebended alloy beams (coming only from the amas`weight) and the bridle -shrouds going to both beams, held by struts of stainless steel bars, she`s a very stiff boat. Torsion of the whole structure is nearly unknown.

pogo

**pogo**

March 24, 2010

Answers, coming from my experience:

- Is it possible to achieve an ideal shape using plywood?

Using ply instead of GRP-sandwich would be no problem, one could build a perfect sister of the Nielsen 35. The weight ? I dunna.

- What about effects of wetted surface on a boat`s speed?

Only in very little wind she`s a bit slower.

- What are some considerations when thinking about a V-hulled tri as compared to one with a more rounded underwater surface area?

NO V-hulled tri !!

- What about the issue of a hull`s shape and its ability to tack?

No problem at all, she tacks on a dime. Her behaviour in a seastate is very good. Being submerged in a wave, the sharp bows have only little increase in volume, which would stop the boat and encourage pitching. Her flat transoms are also very pitch dampening.

Running in a chop the sharp bows go thru the waves like wavepiercers. This is very helpful in planing mode. Planing in a chop of up to 1m is possible.

pogo

# Is coating with epoxy always necessary when boatbuilding in wood?

February 16, 2009

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: boatbuilding epoxy, Buccaneer Trimaran, Crowther Buccanneer trimaran, epoxy for boatbuilding, epoxy in boatbuilding, epoxy when boatbuilding

## Comments

**guy**

November 30, 2014

thank you for raising this, I have a terrible reaction to epoxy, cant handle the stuff, happens every time I see the pricetag. Wont use it, period.

# How Many Ways Can You Build a Trimaran?

February 23, 2009

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: boat building techniques, build trimaran, C flex, cold mold construction, cylinder mold construction, foam core construction, KSS system, radiused chine, strip cedar, strip plank construction

No Comments

# Announcing the Montage (Beach) Trimaran – for Homebuilders

February 27, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chris Ostlind, Chris Ostlind design, Chris Ostlind trimaran, montage beach tri, montage beach trimaran, Montage trimaran, Ostlind design, Ostlind trimaran design

No Comments

# The Modern TC 660 Small Trimaran

February 27, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Clissold 660, TC 660, TC 660 small trimaran, TC 660 trimaran, Tim Clissold

No Comments

# The Collage Beach Trimaran

March 6, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chris Ostlind, collage beach trimaran, collage small trimaran, Collage trimaran, Ostlind design, Ostlind trimaran, Ostlind trimaran design, small trimaran

No Comments

# Piver 24 Nugget Trimaran — Vintage History

March 11, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Arthur Piver, Arthur Piver trimaran, Piver Nugget, Piver Nugget Trimaran, Piver trimaran

## Comments

**stephen wolf**

November 22, 2009

The Nugget may not have been ocean ready out of the box ... but when properly set up it was a capable and safe ocean cruiser. In the late sixties and early seventies, my wife and I spent several years in a circumnavigation aboard the "No Name." A great trip. We never thought that we were in danger for even a couple of seconds.

**Patrick McGrath**

August 28, 2011

I built a Piver Nugget and launched it in July 1964. It took six months of part time work.

I built it exactly according to plan, except I used two surface piercing daggerboards

pivoting out from two "sheaths" at the wing folding junction.

This allowed a double berth in the main hull by folding down the back of the bench seat and its back cushion, to form a comfortable double.

The twin daggerboards were not a success as they flexed too much and were a pain to operate at night or in bad weather. After the first summer we replaced them with a Cross 24 type LAR keel. The helm balanced perfectly.

The full sized berths fore and aft slept my two teen aged sons. We sailed and cruised for four years in comfort. The open aft end of the cabin was covered by a tailored canvas top and was completely dry when buttoned up.

The folding system was crude and simple—but it worked and we had no problems with it.

The deep Vee floats had hatches, in which we stored light belongings and equipment. But the deep Vees caused violent rocking by power cruisers wakes, as the floats would submerge and then spring up again, like squeezing an orange pip. Several times we lost soup off the stove like that. Any Tri you consider—nix on vee bottom floats.

The mast, as designed, was a flat 2"X6" Fir plank. We sat this on a trailer tow ball in an oak socket to allow it to rotate, limiting its rotation with two door stops. Worked well.

The self tacking jib worked on a track formed by a chrome plated towel rail, as did the mainsheet. Believe it or not we had wheel steering. A small cast metal wooden handled wheel, acting thru pulleys to a yoke on the top of the rudder, was bolted to the centre of the rear beam in the cockpit. It was convenient from either side. When monohull sailors told us "Multihulls can't tack or go well to windward" we would invite them on board. Sailing on a close reach we would tell them to hold the wheel all the way up to windward. As the boat came up onto the wind they would always instinctively start to back off the wheel. "No, no we would say. Hold it over" When they did, the dear little Nugget would come up right through the wind continue on down, self jibe and then come on back to the original heading all by its self. Just blew their minds. :) That boat cost me \$1,500 to build, (in 1960s dollars). I sold it in 1968 for \$3,150.

Happy memories.

**Small Tri Guy**

August 28, 2011

Wow Patrick! Wow.

What a review on the handling of your Piver Nugget. Thanks for sharing this with us :-)

Again ... wow.

**anthony razevich**

August 9, 2013

I want to sail back to the states in small multihull what do you recomend cat or tri v or flat bottom. I am thinking 16 to 20 ft with wind gen. and wáter desal. . I had a piver nimble but hurricane Andrew took it I am 64 and maybe my wife will join me we are both crazy about multihulls. i have my own design but would like to hear about my options before I try to build thanks anthony

**Small Tri Guy**

August 9, 2013

Hi Tony,

When you say, "sail back to the States," then I assume you're out of the country ... but not across an ocean somewhere. I don't know that you'd want to try and cross an ocean in a 16-20 ft boat :-)

That being said, there are a few trailerable trimarans featured here on smalltrimarans.com that would allow one to cross an ocean. Not many, but a few. The Marples' designed DC3 trimaran was drawn up with ocean crossing in mind. And you probably already know that Searunner 25s have crossed oceans. The challenge, however, is getting a hold of one of these models without having to build one. IMO the easiest and most economical thing to do (to achieve your goal) would be to buy an older, smaller catamaran in the 30-foot range. That is very doable and would be much easier than trying to cross a large body of water in a smaller tri.

My 2 cents, adjusted for inflation, of course :-)

All the best to you in your journey (let us know what you decide to do) ... and fair winds!

**George Willenbrock**

October 24, 2017

My dad bought a Piver Nugget 24' trimaran in the early 60's. It came with a set of Star monohull sails, which were a little on the small size. He purchased a custom main and jib which were twice the size of the star sails, huge roach in the main, and a jib that was almost too big to tack without moving the hardware past the mast. What a rocket!

Sailing parallel to a highway we did more than 30mph for 5 miles, this was a rush! On windy days this kind of speed was common. I learned to water ski behind that boat.

Skis would plow A LOT, acceleration to get the skis up was slow, but how cool it was to overhaul anything else with sails and wave as I went by! Surfing: Yes, Dad and I



were more than a little crazy! We did not go on the beach, we would go to Fire Island inlet and surf the bars, screaming across the waves! Note: when we reached the shoulder of the wave it was too small for the boat, the rudder and stern was out of the wave top and the downwind wing hull buried in the bottom of the wave. Wound up broaching which was better than pitch polling a half sommersault forward!!!! I spent lots of time just sailing for the sake of sailing, listening and feeling wind, waves, boat, sun, stars, nature and the sea. A very small boat for a very big ocean.

**rickey**

February 17, 2019

Great read, I'm getting a 24' pivey nugget but problem is its on the west coast and I need it in fla. Do you think a coastal sail would be possible?

**Small Tri Guy**

February 18, 2019

A coastal sail would theoretically be possible Rickey, but it would likely be easier trailering the boat from the West Coast to Florida.

# Trimaran Sailing Kayak from Ted & Zac Warren

March 13, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Little Wing 15.5, LW 15.5, Ted Warren, Trimaran Kayak, Trimaran Sailing Kayak, Warren Light Craft, Zac Warren

No Comments

# Trimaran Sailboat Plans (Pricing Differences)

March 27, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: plans for small trimaran, plans for trimaran, small trimaran boat plans, small trimaran sailboat plans, trimaran boat plans, trimaran sailboat plans

## Comments

**Mark Runnels**

June 3, 2009

Hi,

Which trimaran design is featured in the photograph on this page?

It looks vaguely like a Norm Cross design.

<http://www.smalltrimarandesign.com/Trimaran-Articles/trimaran-plans-prices.html>

FWIW – I love the way the website is expanding.

All the best,

Mark

**Small Tri Guy**

June 3, 2009

Hi Mark,

The trimaran at the top of the page at SmallTrimaranDesign.com is an early model of what are now known as the “Dragonfly” trimarans. You can read more about this trimaran be going here: <http://smalltrimarans.com/blog/?p=254>

— Small Tri Guy :-)

**Hal Dantone**

April 25, 2011

Are there plans for a 24-30 ft. main hull that can be joined to Hobie 16’ outriggers?

**Small Tri Guy**

April 25, 2011

The original “Tremolino Trimaran” Design merged a 23 foot center hull with Hobie 16 hulls for outriggers.

## A Small Trimaran Named *FAITH*

April 3, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: fiberglass trimaran, home built small trimaran, multihull trimaran, small trimaran

No Comments

# Trinado "Humdinger" Trimaran Has Been Sold

April 6, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: humdinger trimaran, humdinger trinado trimaran, Russell Brown, russell brown boatbuilder, Russell Brown trimaran, Trinado trimaran

## Comments

**Barry Ellery**

May 28, 2009

What is the asking price?

**Small Tri Guy**

May 28, 2009

Not sure Barry. Russell probably wants interested parties to contact him directly for that info.

**Richard Benning**

September 21, 2015

do you know if humdinger would be for sale again?

**olsurfer**

December 6, 2015

Yes it could be for the right price.

**Tim J Knight**

January 14, 2023

Did Humdinger get sold recently?

**Small Tri Guy**

January 14, 2023

This is a post from 2009

# Dudley Dix's Threefold 6 Trimaran

April 19, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Dix trimaran, Dix trimaran design, Dudley Dix, Dudley Dix Threefold 6, Dudley Dix Threefold 6 trimaran, Dudley Dix trimaran, Dudley Dix trimaran design, Threefold 6 trimaran

No Comments

# Multi 23 Small Trimaran Racer (Imported from France)

April 27, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Mike Leneman, Multi 23, Multi 23 trimaran, Multi Marine, Multi23, Multimarine, Randy Smythe, small trimaran

No Comments

# The Production Fulmar Trimaran & Homebuilt Tamanu

May 11, 2009

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans

Tags: Dierking Tamanau, Fulmar, Fulmar sailing canoe, Fulmar trimaran, Gary Dierking, Tamanu, Tamanu sailing canoe, Tamanu Trimaran

## Comments

**Rick**

June 18, 2009

Kia ora My name is Rick from Raglan New Zealand. I have recently purchased a surf row boat of 8m length. It has beautiful lines, is strongly built glass over ply.

I want to place to small outriggers on either side of the row boat and a crab claw sail on the main hull. I propose to use a large steering oar for steerage and lift.

I like the drawings of your Tamanau. I am interested in what outrigger length, attaching outriggers, rig size and placement, stay and sheet systems

Any help gratefully received

regards rick

**Small Tri Guy**

June 18, 2009

Hi Rick,

For more information about Gary Dierking's Tamanu design you can visit <http://homepages.paradise.net.nz/garyd/>

Gary book entitled, "Building Outrigger Sailing Canoes" also contains detailed information about how to build the kind of outriggers you're talking about. They aren't hard to build, but you really need the details Gary provides in his book.

**Dan**

December 1, 2009

thanks for the link to my build! I'm going to be using my Tamanu as a trimaran with my Ulua outriggers and crossbeams. In addition, I will rig it with a single outrigger (possibly with a "safety ama") like the Hawaiians do with their HSCA canoes. My friend Brian (who built the other Tamanu hull) and I made the double canoe that we did the T200 with. Nice site! I have some pics of my Gary dierking Ulua rigged as a tri as well—a bit low slung initially....heavy beams and mast.

Dan



# Summer Camping on a Corsair Sprint 750 Trimaran

May 14, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Corsair Sprint 750, Corsair Sprint 750 trimaran, corsair trimaran, Sprint 750, Sprint 750 Trimaran

No Comments

# A New Folding Trimaran Powerboat

May 18, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: cost effective motorboat, fuel efficient motorboat, multihull powerboat, trimaran powerboat

No Comments

# Building a Scarab 22 Trimaran — Photos & Details

May 18, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Kendrick Scarab trimaran, Kendrick trimaran, Ray Kendrick Scarab 22, Ray Kendrick trimaran, Scarab 22, Scarab 22 trimaran, Scarab trimaran, Scarab trimaran model

No Comments

# Blogging Sailor Discovers a Weta

June 1, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Add new tag, Weta, Weta trimaran, Weta trimarans, WetaWest

## Comments

**Alex**

June 4, 2009

I haven't been on one of these either, but it really looks like the boat we've been waiting for – what the Windrider should have been. I hope they make one for two full-sized adults though.

By the way, great blog!

**Small Tri Guy**

June 4, 2009

Hi Alex,

2 adult sailors should fit comfortably into a Weta. (And I'm glad you like the site)!

**ericmgt**

June 27, 2009

I'm really excited about this skiff with training wheels!

after sailing laser for 35 years, I'm ready for something a little more roomy, haha! I would like to know what the best way to trailer the weta is ..... too bad the dolly isn't road legal!

**Small Tri Guy**

June 27, 2009

Hi Eric,

I'm sure Dave B at WetaWest will be happy to answer all questions Weta related (like this one anyway ;-) ... <http://www.wetawest.com/>

**DanieColyn**

November 10, 2009

This is an amazing boat, comes to life in waves and strong wind. The best testimonial is a 12y old that said to his friend, 'When a gust hit nothing happens it just goes faster...'

I loaned him a WETA for a race, he beat a lot of 16 -18 ft cats over the line! One sailed the Malawi 500, a well known boat breaker, only damage was jib batten where skipper banged it with his head during a pitch-pole. (Don't worry, its easy to right).

## More on the Dix Threefold 6 Trimaran

June 5, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: chernomor, Dix trimaran, Dudley Dix Threefold 6, Dudley Dix Threefold 6 trimaran, Dudley Dix trimaran, Oleg Zelinskiy, Threefold 6, Threefold 6 trimaran

No Comments

# An Aluminum Trimaran (Sailing Canoe) Coming?

June 8, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: aluminum trimaran

## Comments

**Marcelo Brocchini**

June 22, 2009

Congratulation on your projet I like to folow it can you give me more details

**Small Tri Guy**

June 22, 2009

Hello Marcelo,

I will post additional information about this trimaran sailing canoe as soon as Valery sends me another update about his progress with it. Hopefully, that will be sometime this sumer. — Small Tri Guy

**Mitchell Hay**

September 11, 2009

Very cool concept!

More orthodox designers say that aluminum is too heavy for multihulls until you get to very large scale.

What does Valery estimate the weight of this boat to be?

How does the weight/strength compare to a ply or foam core boat?

**Small Tri Guy**

September 11, 2009

Good questions Mitchell. I will post replies to them (hopefully) when Valery sends the next update.

**samuel vermeulen**

September 22, 2013

helo

do you have plans for this trimaran

you sel plans how to build

greetings i am intrest

## F22 Press Release

June 18, 2009

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: F-22, F-22 trimaran, F22, F22 trimaran, Farrier F 22, Farrier F-22 trimaran, Farrier F22, Farrier F22 trimaran, Farrier Marine, Farrier trimaran

## Comments

**dave trey**

July 30, 2009

The semi production f 22 from Melvest is \$40k and incomplete, ie no pole and less fittings. Is it realistic the production boat can be had for less than \$50 as stated? This doesn't follow with the advertised mantra of an affordable entry family trailer-tri .

**Small Tri Guy**

July 30, 2009

Fair question Dave. If anyone is considering building this model (or any model for that matter), it's always a good idea to try and get in touch with someone that has already built it and ask hard questions. Such questions would include costs (and not just the dollar-cost, but time spent building too).

# Astus Trimarans in Europe

June 30, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Astus small trimaran, Astus trimaran, Astus trimarans, Astusboats, Chantier Astusboats, small trimaran

No Comments



# Hobie Adventure Island 16' roto-molded Trimaran

July 9, 2009

Categories: Small Tri Info - All

Tags: Hobie Adventure Island, Hobie Adventure Island Group, Hobie Adventure Island Group Annapolis, Hobie Adventure Island rotomolded trimaran, Hobie Adventure Island trimaran, Hobie Trimaran, Hobie trimaran owners group Annapolis MD

## Comments

**Jean**

July 10, 2009

I love John's Video... I like the boats too! Thanks for spreading the word about them.

**Don Rypinski**

July 23, 2009

If you like the concept of the small sailing trimaran that folds, check out the TRITON Tandem Sailer. It has an unstaid roller furling mast and sail with full length vertical battens, foot steering and a patented wedge transom with a sweep action rudder. It comes with accessories like a rudder mounted electric trolling motor, and a forward cockpit spray shield with a windshield for extreme conditions.

# Building & Sailing Jim Michalak's Trilars Trimaran

July 14, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: build boats, buildboats.com, Duckworks, Duckworks Magazine, Jim Michalak, Jim Michalak boat design, Jim Michalak design, Michalak Tri-lars, Michalak Trilars, Michalak trimaran

## Comments

**Peter Wilson**

August 10, 2010

I recently converted my 4.5 meter fiberglass canoe to a trimaran I made my amas from plywood Gorilla glued and covered with dacron shrink skin Laquer and sealed multiple coats, works like a charm and lots less expensive than epoxy. I sewed my sails from poly tarp material from large roll stock. My sails total about 120 sq.ft. my speeds are better than yours, maybe you need more sail area. My rig is also cartopable.

**Frank**

July 19, 2013

Hi Tom – In the first on-water photo above, the boat is way out of trim and squatting at the rear. That alone would inhibit tacking, even if you had that 2.5 mph. If you can get yourself more toward the middle, you might tack better. I'd be curious to know how balanced the helm felt. And unbalanced boat can be a real mess to drive. When you get it balanced, it should point, tack, and steer optimally. How do I know? Because I think I've made just about every design mistake possible, and probably a few more. But now all my boats handle like sports cars! (And all of them go 14 mph)

Cheers – Frank

**Carter**

March 25, 2020

Jim, is like to talk to you about your trimaran.

# The Bandit 800 Trimaran (from France)

July 16, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Bandit 800, Bandit 800 trimaran, Chantier Naval MULTID'O, French trimaran, Multid'o, Pierre Rolland, trimaran from France

## Comments

**DanieColyn**

November 22, 2009

Anyone has an explanation why two daggerboards and one rudder?

Would two rudders on the ama's not be better?

I like the daggerboards on the ama as it opens the cabin.

**Shannon**

January 31, 2010

Do you sell these in the U.S.? If so what is the cost?

**Small Tri Guy**

January 31, 2010

The Bandit 800 is currently being marketed only in Europe right now. If you want one then you're going to want to combine the trimaran purchase with a wonderful vacation to France :-)

**Tony Bertram**

November 13, 2020

Looks very interesting I am looking for a small trimaran and this looks like it could fit the bill ... Tony

# TRITON Tandem Sailer Trimaran – Easy Sailing for 1 or 2

July 24, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Backbayboatworks, Backbayboatworks.com, Don Rypinski, triton tandem sailer, Triton trimaran

## Comments

**John Dineen**

July 15, 2012

Hi,

I was interested in the Twinsailer. Are you selling one or are you selling plans?

John

**Joe Bohl**

April 17, 2013

Don, Hi there, I hope all is well 4 U~!?:) I still have my triton and it's still 4 Sale? :) I currently have ads in CL in a few areas and am getting LIL interest so far~?! :( Just to touch base w/you,,,, R U getting much interest these days? Do you know of anyone looking for a good used boat~? :) I've add the sun solar tape to the sail, for easier wrap up. The only broken original part are those black rubber deals that hold the amas into main hull. One is broken, you had sent me one but was TOO short on one end~?! :) a bungie cord does just fine. I started of at \$4K, now asking \$2500. obo. Any insights or folks interested would be GREAT~! :)

Joe 775 721 5910 cell # no text.

# Historical Small Trimarans I Have Met (Part 1)

July 26, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Arthur Piver, Arthur Piver trimaran, Bjorg Quorning, Buccaneer 24, Crowther Buccaneer 24, Crowther Buccaneer Trimaran, Gougeon Brothers, Ip Pors-Nielsen, Lock Crowther, Lock Crowther Buccaneer

No Comments

## Historical Small Trimarans I Have Met (Part 2)

July 26, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Gougeon Brothers, Jan Gougeon, Meade Gougeon, multihulls, small trimarans, trimarans

No Comments

# DIY Homemade Small Trimaran

July 31, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: home built trimaran, homemade small trimaran, small trimaran

## Comments

**Stefano**

August 6, 2009

Hi.. 200 bucks is really little money...if the material is beachcombed or scavenged in the trash bins it might be correct, otherwise, having built 4 small boats I'll keep my doubts about the figure. A wooden kayak in wood epoxy will cost roughly 300 euros (420 dollars at current rates)if you include all item from fasteners to sand paper and paint.

**Michael Hoover**

August 19, 2010

If this is the same one I saw on instructables, then making it for 200 US sounds reasonable to me. The construction (if the same boat) is a fabric covering stretched over a skeleton frame and then impregnated with epoxy. Kind of a diy fiberglass job. The fabric would cost less than 50 and the epoxy (polyester) is only 34 at home depot. All you need to buy are two lengths of PVC and a tarp.

# What Frenchmen Do In Their Spare Time When They Want a Trimaran Daysailer – #1

July 31, 2009

Categories: Small Tri Info - All

Tags: French trimaran, small French trimaran, small French trimaran day sailer, small trimaran, small trimaran daysailer, small trimaran sailboat, trimaran daysailer

## Comments

**Stefano**

May 9, 2014

it should read "Akas are in laminated plywood – not box shaped" amas are most probably dart 18 hulls with some refurbishing

**Stefano**

May 9, 2014

the main hull is a double layer of 600 grams per square metre cloth set in epoxy.

Masonite is MDF. I correct myself probably dart 16 amas ?



# What Frenchmen Do In Their Spare Time When They Want a Trimaran Daysailer – #2

July 31, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: French trimaran, small French trimaran, small French trimaran day sailer, small trimaran, small trimaran daysailer, small trimaran sailboat, trimaran daysailer

No Comments

# The Mini-Fleuret & Fleuret Trimarans

August 1, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Fleuret trimaran, Fleuret trimarans, Ip Pors-Nielsen, mini Fleuret trimaran, mini Fleuret trimarans, Pinta trimaran, Supernova, trimaran daysailer, [www.multihulls.dk](http://www.multihulls.dk)

## Comments

**Laurent**

April 25, 2016

Hi Dan, although this post is very old I leave a message. I'm a multihull sailor ; I owned two small trimarans a Speed 770 and a one-off and actually own a 38' cat. I consider buying again a small trimaran or build also a one-off pacific proa that I've already designed.

Have you built your proa ? Are you still sailing trimarans or else ?

Best regards, Laurent

# Aire Sawtooth Inflatable Trimaran

August 10, 2009

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Aire Kayak, Aire Kayaks, Aire Sawtooth Inflatable Trimaran, Aire Sawtooth kayak, inflatable trimaran, Trimaran Kayak

## Comments

**Anselmo Lastra**

July 25, 2013

Jeff, great info. Thanks! How did you make the mast step?

# Discovering the Nicky Cruz Trimaran

August 12, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Graeme Delaveau, Nicky Cruz tri, Nicky Cruz trimaran

No Comments

# The Chief's Tridarka Raider Trimaran

August 12, 2009

Categories: Small Tri Info - All

## Comments

**Larry Whited**

July 21, 2012

On the subject of Tridarka, just wanted you to know I bought Tridarka from Hal Link (who bought it from Chief). I am in the process of refinishing it and adding a "Windfisher" like deck to it now. It is a fine sailor which I think with some attentive revisions of rigging will make it a joy to sail. I will be cataloging upgrades and changes to Tridarka on my general adventure blog as listed. Regards

**Hal Link**

November 2, 2012

Hi Larry,

The Tridarka was a kick to own and sail while I had her. Glad to see you're carrying on with more improvements. She did me very well in two Everglade Challenges including a surprising third place in my first race – just ecking out a boat with two crew and a very determined skipper (Jarhead). She was just a little too much for me to handle solo in the channels with no, dare I mention the word, outboard. Let me know if you have any questions or just to let me know how it's going.

Hal (IsZataRock)

**Larry Whited**

November 26, 2012

Hal, nice to hear from you. I am refinishing the AMAS currently, with timeout for cold weather. The sharp keel chine had to have most of the taped cloth removed as it was not well saturated and porous. I have retaped both with well saturated finish. When completely filled and refinished I will use high build epoxy primer and sand for final painting. As I often leave the boat in the water when at Cedar Key, I will define a waterline amongst the three hulls (no small job) and use antifouling below and polyurethane above. I expect to finish all the upgrades sometime next summer b/c I have two other boats in progress as well. I will be away sailing the coast of Florida to the keys and beyond this winter. Again reports can be followed at the web blog:

<http://seapearlboats.blogspot.com>

Larry

# Népaù: Transforming a Misfit Proa Into a Performing Trimaran

August 24, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: proa to trimaran, self built small trimaran, small trimaran, virus boats, virusboat, wood trimaran, wooden trimaran

## Comments

**peter evans**

September 7, 2009

Hi

Shame your tacking proa configuration did not work out.

I suspect a bit of this had to do with the lightness of your outrigger, your relative high freeboard which brings crew weight up higher than the norm. Your 9ft beam ought have been sufficient. For the record my outrigger weighs 32kg, and yours probably a lot less.

Last but not least the lack of a safety ama. A safety ama can be built light and of low tech materials, it does not need to be shaped. Any long object that is light and has sufficient volume will do. 20cm diameter PVC pipe will work.

Shame you fell into the water, not pleasant. The upside is that you seem to be using your boat a lot in its new configuration and that is the main thing.

regards

peter evans

**Stefano**

September 11, 2009

Hi Peter...

The boat was intended and still is for minimum weight to be car-toppable. This was one of the main design criteria. So, true.. the ama was very light: 7 gs (15.5 lbs) and is now 12 kgs (27 lbs) having been fully foamed.

The boat is now 80 kgs fully rigged ( 176 lbs), but main hull is only about 86 and can be easily car-topped by two people or even one with some wheels).

I did have a safety ama in the form of two inflatable plastic cylinders meant for pulling the boat ashore. Helas they were under the bench and waves were continuously beating and slowing down the thing.

The freeboard I had increased to install the fixed and shaped benches, so that water would not beat under the old fashioned benches and be sloshed into the main hull

Now I have a beast: the boat has been sailed hard into 22 knots wind and performed very well with speed in mid teens. Competing with lasers and hobie 16 in these conditions, both up and downwind.

From the proa, I only miss flying the ama and riding on just one hull, but it's something I can easily revert to, by just configuring the boat again in proa mode.

Cheers, Stefano

**guido**

January 3, 2010

Ciao Stefano,

mi piacerebbe contattarti per avere qualche info in più su Népaù, puoi mandarmi un tuo contatto a guidobanchiocciolaliberopuntoit (scrivo per esteso per evitare spam)

caio

Guido

# A Homebuilt CLC Mill Creek Trimaran

August 25, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chesapeake Light Craft, Chris Ostlind, CLC Boats, Duckworks, Duckworks Magazine, Hobie Mirage trimaran, Hobie Mirge, Hugh Horton, John Bull, Kellan Hatch

## Comments

**Eric**

September 2, 2010

I am interested in a little more detail on your bolted connection between the akas/cross pieces and the hull. I bought the plans for a CLC sailing rig to put on my CLC Chesapeake Double but adapted/scaled the amas up to 15 feet long from their plan length of 10 feet. I also wanted use bolts (actually was thinking of turn buckles) to hold the akas in place on the hull. At the CLC shop "John" the CLC designer told me bolts would transfer too much shock to the connection in the hull. The lashings are intended to provide some shock absorber function. Claim was I would break my kayak hull if I made a direct connection - so am interested seeing both how you made the connection to the hull, and your experience with stress on the connection point

**Stefano**

September 9, 2011

Point loads can be somewhat reduced by interposing rubber washers - I use plumbing or tire-cut washers - in significant number so to make a little rubber pad perhaps adding up to one inch thickness, and of course by strengthening the hull beneath attachment points.

Be aware you have greater volume amas menaing greater stresses... This said, I leash my amas to the akas: it's fast, forgiving, colourful, will not foul, plenty strength.

Some kind of downward tie to some reinforced point, to keep the akas from pulling up too much on a shock load (i.e. when at speed maybe you find the wake of a powerboat) will avoid stress failures, just as much as keeping the sail within reasonable limits.

# More on the Aluminum Trimaran

September 7, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: aluminum trimaran, Hawaiian sailing canoe, Philippine Paraw, trimaran design, trimaran design model

## Comments

**Stefano**

September 11, 2009

Hi

just a brief comment: the vaka - aka connection seems very prone to hi loads and stress (main hull). Maybe you want to have some textile connection from the akas to the main hull bow.

And BTW..why so little volume in the main hull ?

**Val**

September 13, 2009

You are right, there is alot of stress that will be applied in the vaka-aka connection. The boat is still in construction. There will be steel cable from the bow of the main hull to the aka at the pivot point and also from the back of the main hull to the aka at the pivot point in the back. There will also be a set of rope from the bow of the main hull to the end of the aka to help me getting the ama out from 8 feet to 20 feet wide and this rope will also help to support some load that are on the vaka-aka connection.

Why such little volume in the main hull? The only reason is for speed by keeping a simple design (No foil or planning hull). The hull is design with a deep V shape cross-section but I did make the bottom round to increase a little bit the main hull volume and to prevent loss from a sharp edge. I assume that with this main hull shape I will not need any dagger board. The main hull can hold about 2200lb fully submerge, the completed trimaran should weight about 650lbs and I design the trimaran for 2 adults. Therefore there should be enough volume.

thank for your comment.

**TR**

March 29, 2011

How'd she go?

I was curious about the construction technique you used at the riveted seams. What did you use as a sealant at the joint and between the splice plate?

Best of luck.

**george bello**

March 20, 2018

2018, looking at a similar project for grand kids.

details? love my grumman canoes, aluminum, rugged and zero maint.

thanks for the spur.

george



# Camp-Cruising & Coastal Sailing in the XCR Trimaran

September 10, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: camp cruise trimaran, Chris Ostlind, Chris Ostlind trimaran, Chris Ostlind XCR trimaran, coastal trimaran, Jackson Lake sailing, Kellan Hatch, Lunada Design, LunadaDesign, small trimaran

## Comments

**Mark Harrison**

September 14, 2009

Hi there. You spoke above of the 'texas 200' in an inflateable trimaran. Could you tell me what make of inflateable that was and how it performed?

**al loomis**

April 20, 2011

interesting boat, but it looks like a cat schooner. it is very sensible to use pole masts in a boat this size, rigging is just a matter of plugging in the masts with sails already shown.

# The Windrider Trimaran Wellington Lake Regatta

September 12, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Windrider, Windrider 16 trimaran, Windrider 17 trimaran, windrider trimaran

## Comments

**Trevor**

March 21, 2010

any of you windriders sail Soda Lake & laugh at the drunken pirates usually sailing with you on a prindle 16' catamaran? I see one of you out there all summer & am curious about getting in to a windrider, e-mail me or reply back, thanks.

**DaCheez**

July 5, 2011

Are you referring to the Soda Lake that is close to Morrison — just east off 470? Thanks.

# The Speed 770 Trimaran (from France)

September 17, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Derek Kelsall, Eugène Riguidel, Freely 800 trimaran, Gahinet catamaran, Gahinet trimaran, Gilles Gahinet, Speed 770 trimaran

## Comments

**steve hanson**

April 28, 2010

I live in Detroit Michigan and own a Speed 770. Great boat. Very light. Very fast. I've had it up to 16 knots in about 20kts of wind. Just finished repainting it and redoing sails. Once lakes have melted I'll get it launched for summer!

**Thijs Visser**

December 6, 2022

Hello,

I obtained a small French trimaran of the Ocqueteau brand and type Speed 770.

One thing is missing and I could use all available info on dimensions, materials and so on of: the rudder.

Hope someone can help me out.

Thanks!

# Discovery Channel Features Homebuilt Trimaran

September 23, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: boat building, build trimaran, Discovery Channel sailing, James Dilworth, Peter Evans, small trimaran, tacking outrigger, tacking outriggers, tacking proa, tacking proas

## Comments

**Joe Moore**

September 25, 2009

Neat! Good on people for getting stuck in and making these cool little boats and good on Discovery for giving them airtime!

# How to Create an Aluminum Canoe Trimaran

October 2, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: aluminum trimaran, aluminum trimaran canoe, canoe to trimaran conversion, cartopable trimaran, planing trimaran, stitch and glue amas, trimaran canoe

No Comments

# From Sit-On-Top Kayak to Trimaran Kayak

October 6, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Kestrel 140, Kestrel kayak, Lightspeed Kayaks, sailing kayak, Trimaran Kayak

No Comments

# The Seawing 24 Trimaran Lives

October 6, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

## Comments

### James

October 9, 2009

What a good looking tri. The proportions are spot on.

### Olaf Ramm

February 7, 2010

Hi there,  
what a nice coincidence ! After years of fruitless search on the internet now I find two Skip Johnson desings. The Seawings 24 on your web site and the 42 foot version on sale in Mazatlan.

Whilst I'm on my Seawings 36 in La Paz. I love this boat she performs like a charm and the interior layot beats all other tris with this lenght.

chucke – just had to steam of my surprise – what a nice surprise,

fair winds,

Olaf

### ralph cadman

April 27, 2010

I once owned Skip's first design, a 28' trimaran named "Night Hawk. It was a beautiful boat and very advanced for it's time (late 60's). I have a picture of it. If you would like a copy e-mail me and I will send it to you. I met Skip and visited him in Ventura. He was a great guy and a super designer. Later on I bought Malihini, which was Norm Cross's Cross 24 (as seen in his catalog). After that I moved up to a Searunner 31, which I named "Shortcut" and sailed to to Mexico. After returning from Mexico I bought a Searunner 37, named it Atajo (Shortcut in Spanish) and returned to Mexico. After ten years I sold it (now named "Hot Spot") and became land bound. I've had a great time in trimarans and have the pleasure of knowing Skip Johnson, Norm Cross, Jim Brown and Joe Hudson. I now live on 6 acres in Ava, Missouri. Ralph Cadman

### Roger Starbuck

October 28, 2010

Aloha to all,

I owned a Seawings 36 hull #1, for about 12 years here in Hilo Hawaii. I contacted Skips widow years ago and she gave me pictures of my boat being built before I owned her! The Flyin' Hawaiian was the fastest thing with a cabin in Hilo harbor for every year she was here. When racing, while every other captain is screaming for more sail, I'm yellin' to take some of this stuff down otherwise we will disapear over the horizon. With just the jib !

Olaf, you have a good boat! Mine was cutter rigged sloop, 1100 sq.ft of sail- Bright yellow hulls — have fun ! Roger

### Brian middleton

February 25, 2011

What can I say!!! I am buying the Sea Wings 42 in Mazatalan and wandering now if this is the Tri Skip was building for himself... I really hope so.... Following Skips dream!  
Does anyone know how his wife is and how to contact her???

Fair winds and warm seas to all.

### Mona

July 25, 2012

I'm her grand daughter and she passed years ago. If you send me your email I can forward to my dad and uncle. Yes, the big one of the series was their dream! :)

### Brian Middleton

October 20, 2012

Hello Mona.

Sad to hear about your grandmother and I wish I could have met her.

We are now in Fiji and of coarse aboard "Seawings". She is beautiful, fast, comfortable and much more. We have had a fantastic life experience and can only pay tribute to Skip and Eric who finished building her. We would love to hear from you and share our adventures.

"Sailing the dream"

Regards

Brian and Juliet

### Brian Middleton

October 20, 2012

Next stop is New Caledonia.....

### Mona

October 26, 2012

I have sent your email to my folks. They said they would like to send you pic of launch and of Skip and Beth. Cheers! Mona

### Doug and Joan Johnson

November 17, 2012

Hi Brian... I'm Skip's son. So glad to hear of Seawings adventures. We have some photos of the launching...we could get you copies if you're interested. Do you have any news of Eric and Diana or an E-mail address? Please keep in touch, Doug and Joan

**Doug and Joan Johnson**

November 17, 2012

Our mail address, Brian Middleton, is joananddoug AT sbcglobal DOT net Cheers!

**Bob Cecil**

September 29, 2014

I have found the missing seawing and have a chance to purchase this fine boat. Any ideas what it may be worth ??

**Small Tri Guy**

September 29, 2014

Hi Bob,

The only clue might be to look up used trimarans of similar size and see what they're actually being sold for (meaning the actual selling price, not asking price).

The technical answer, of course, is always, "It's worth what the market is willing to pay for it." So the question then becomes, what would you be willing to pay for a boat such as this?

I hope it works out for you and you are able to make a deal.

**Heidi Johnson**

September 3, 2015

I was Grandpa Skips granddaughter, too. I watched him build this boat from scratch. I loved all the wood smells. My dad would sleep in there when we visited their modest home. I would climb up the ladder to bring my dad coffee. I love all the beautiful woodwork. Just beautiful. true craftsmanship. So wonderful to see the journey of Seawing. Waves of Aloha and enjoy the adventures!

**Jim Roberts**

September 13, 2015

I had the pleasure of knowing Skip and Beth back in the 70's when the yellow tri was just launched. I was interested in a beautiful cat Skip had designed, and my friend Chandler Lane bought plans and built a Seawings 36, but tragically died surfing before launching it. Skip was so far ahead of his time. He's probably smiling now. A great man.

Aloha,

Jim

**Hall**

March 1, 2017

I just discovered your website. I was involved in building the Seawings 24 from inception to when Chuck bought the molds from me. Richard Flint was the original builder and I have him and Skip to thank for a lifetime of creating fun sailboats. 2 of the most talented people I've known. My email is ventmulti AT aol.com.

I see posts here from Doug and his family, love to hear from you all!

**Small Tri Guy**

March 1, 2017

Greetings Hall,

That is so neat! Perhaps you might be able to share a small tri story or tow with us here on smalltrimarans?

Let me know.

Joe

**Heidi**

March 18, 2017

Aloha! Today I wish I was on my grandfathers boat. The design impeccable. ...the fond memories of watching it being built. It enveloped me in warmth with the rich interior wood. I wish I could own grandpa Skip pride and joy. Rest in peace. Oceans of Aloha. Heidi Mighty Mo

**Richard Houghton**

September 30, 2017

I built and own a Seawings 36, #11. This is a fantastic boat and everyone who inspects or sails on her says so. I met Skip at the Toronto multihull symposium and purchased his plans soon after. Unfortunately my wife had a stroke and we cannot use this boat as much as we used to so I am now selling her. If anyone wants her my email address is catsrules AT verizon.net

Get me a message and I will send some pics and some specs your way. I live in Annapolis, Md. If Doug or Heidi see this I would love to talk to you.

Brad

**Heidi Johnson**

March 21, 2019

Last night I dreamt of Seawings. I was sailing clear calm waters....scattering Skips ashes at sea. So happy our loved ones live on in their craft....in the deep blue sea. Oceans of Aloha.

**Heidi Johnson**

March 21, 2019

Aloha Hall! Hope you are well. What wonderful memories we shared! Peace be with you. heidimighty @ yahoo .com

**Anthony Anderson**

May 19, 2019

What happened to the molds?

I am a Tool/ Mold maker so very interested.



**skip**

July 14, 2019

One of these is available in the PNW as a project for \$1800.

<https://seattle.craigslist.org/kit/boa/d/bainbridge-island-25-ft-trimaran/6931298922.html>

**Morrow**

August 19, 2019

Hi everyone, I purchased the 1990 Seawing 24 that Bob Cecil spoke of. I have owned it for the last 4 1/2 years and have decided to sell it. The ad can be seen on craigslist Los Angeles listed under Seawing 24

Please contact me through the ad if you're interested, thank you.

**Zeta**

November 17, 2019

My brother built the trimaran that Roger Starbuck owned for 12 years. I would love to know what happened to her. On my brother's sail from Los Angeles to Hilo, back in 79 or 80, he went the last 400 miles without the skeg! I found a letter from Skip, in which he was discussing this with my brother. So cool! I have wonderful memories of "Bitch", my brother's trimaran!??

**buck**

December 14, 2019

Is there any way to get in touch with the owner of the seating for sale in Ca. The ad is down

**Will**

January 15, 2020

Aloha. I am the proud new owner and custodian of the Seawing 24 that Bob, Hall and Morrow posted about. I believe it is the last built example with the longer more aerodynamic beam arms and larger sail rig. I purchased it from Morrow and it is currently being shipped to the island of Kauai where it will likely live out its remaining years sailing out of Hanalei Bay. Great design ideas are incorporated into this well built boat everywhere you look, striking the perfect balance between performance and comfort. Just a fantastic design overall IMO. I'm honored to be part of the story and can't wait to sail her this summer!

**Will**

February 7, 2020

I think the Seawing 36 that Roger spoke of called "The Flying Hawaiian" is currently for sale in Hawaii. I noticed design similarities to my 24 so I contacted the seller and they confirmed the boat to be a Skip Johnson design. You can also just make the name in one of the photos. Here's the CL link if anyone is interested:

<https://honolulu.craigslist.org/big/boa/d/hilo-38-trimaran/7069326070.html>

**Laura**

July 13, 2020

My uncle Richard was the original designer and builder of "The Sound Cloud". It's why I'm here today. He sailed across the Pacific to Hawaii where my mom met my dad. He continued to build boats in Ocean View Hawaii on the Big Island. Eventually we moved to Bend, OR and he followed, eventually passing away from cancer in 2008.

**Nathan**

January 14, 2022

Hi all,

I see Seawings is back up for sale in Grenada, having sat down there for a little while.

We're interested in flying down to see the boat (travel bans allowing of course) but I'd love to read up a bit more on her first, if anyone has more info they'd like to share?

**Will**

January 17, 2022

Aloha Nathan. I can't offer any specific info about Seawings, but do see that there are videos and quite a few more photos available for viewing on grenada dot boat shed dot com . Keep in mind it's plywood construction, so a professional survey would be warranted. Good luck!

**Nathan**

February 15, 2022

Thanks Will. Our offer on Seawings has been accepted and we're just waiting on the final survey prior to completing..

# Building a Sleek 20-Foot Trimaran in "The Man Shed"

October 14, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: fast trimaran, KH 20 trimaran, Kurt Hughes trimaran, The Man Shed, TMS trimaran

## Comments

### **The Man Shed**

January 13, 2010

New updates on the website and update to story

### **Frank Starkweather**

September 16, 2013

I have purchased study plans for both the 16 and the 20' versions of Kurt Hughe's trimarans. Would like to talk top you about your modifications, and where you are now with your build. The photos I have seen so far at "Small Trimarans" look great!

### **Kevin Conley**

March 20, 2018

the link above: Click here to visit "The Man Shed" site and view all of the pictures that Mike has posted for his project thus far. produces a 404 error. just thought you'd want to know!

All the best- Kevin

# The One-of-a-Kind Austrian Soling Trimaran

October 18, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: home built trimaran, homemade trimaran, small trimaran, Soling trimaran

## Comments

### **Wayne**

June 11, 2013

Hi... Found your page after googling for something to put between a set of Unicorn hulls. What information do you have available for this project.

### **Small Tri Guy**

June 11, 2013

Hi Wayne,

What you see here is it. If you contact a competent multihull designer then they might be able to help you figure out what type of hull would work as outriggers for your cat hulls.

### **Damir**

January 3, 2021

Hi , I have small Polish sailboat

El Bimbo, dimensions 6m long and 2 m with. I am interested about converting into trimaran.

Can I get some more links about that ? How to contact mr J?rg ?

Thank you, Damir ,Croatia

# Sailing Comfortably on a Strike 18 Trimaran

October 26, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Derek Kelsall, James Wharram, Richard Woods, Strike 18, Strike 18 sailboat, Strike 18 trimaran, Woods Designs, [www.sailingcatamarans.com](http://www.sailingcatamarans.com)

## Comments

**Ed Vergara**

November 7, 2009

Very interesting Tri...interested to Build one ...Use to have a pixe Before How much for the Working Plan....

**Small Tri Guy**

November 7, 2009

Good question Ed. I'm encouraging anyone interested to contact Richard Woods thru his website to inquire about plan pricing.

**scott geiger**

January 3, 2013

Could Hobbie 18 hulls be used and the main hull stretched to say 20 feet for the Strike 18?

**ivan sigurdson**

December 23, 2013

I enjoyed your articles on the strike 18 and am eventually going to build one . Could you show a interior finished and set up for over night. I was wondering how it would be for cruising between vancouver island and the mainland.

# Rebuilding Small Trimarans (Including Farriers)

October 29, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Cross 26 trimaran, Crowther 24, Crowther 24 trimaran, F-9A, F-9A trimaran, Farrier trimarans, Norm Cross, Piver, Piver trimaran

No Comments

# The W17 – Interesting New Beach Tri Under Development

November 6, 2009

Categories: Small Tri Info - All

Tags: Michael Waters, Mike Waters, small trimaran, Small Trimaran Design. smalltrimarandesign.com, small trimarans, W17, W17 trimaran

## Comments

**Alex**

November 6, 2009

Very cool – this is exactly what I would like for coastal daysailing. Thanks for posting this.

**Jack**

November 8, 2009

Like the idea of some speed with attention to comfort and dryness. Sounds real neat. Looking forward to reading more about this boat. Please keep us up to date on how plans are advancing and when available. Some costs indication would be great too. Thanks

Jack

**DanieColyn**

November 10, 2009

The flat beams will not work in waves. Curve them up and down. Photos are in flat water and not fully powered.

**Alex**

November 10, 2009

Danie, can you elaborate? Do you mean the supports going from the main hull to the amas?

**Mike Waters**

November 10, 2009

Thanks for your concern DanieColyn.

Just to say that the pic. shown is NOT of the W17, but of a much smaller tri that uses a similar hull design. Although that small tri managed quite well, larger waves were indeed an issue. But on the W17, the beams are indeed well above the waves and do curve down to the amas. Further, the forward ama also has streamlined fairing. You'll like it I'm sure.

mike

<http://www.smalltrimarandesign.com>

**DanieColyn**

November 22, 2009

To Alex : I meant between the beam and ama, once the tri is powered the ama is depressed in the water. The beam needs to ride over the waves not slam into it.

To Mike : Sorry for misunderstanding about photo, Mike!

## More On the W17 Trimaran (Wooden Beach Tri)

December 4, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: beach trimaran, Michael Waters, Mike Waters, naval architect Michael Waters, trimaran made with wood, W17, W17 trimaran, wood trimaran

No Comments

# Derek Kelsall's Tango 23 Trimaran

December 7, 2009

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Derek Kelsall, Derek Kelsall trimaran, Tango 23, Tango 23 trimaran

## Comments

**Thomas Chow**

December 14, 2009

Hi Derek,

I have a customer wish to build Trimaraqn, how much is a 20ft trimaran plan,so we can build them in China

kind regards.

Thomas Chow



## 2nd Small Trimarans Book Coming Soon

December 14, 2009

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Ed Horstman, Eric Henseval, François Maillette, Graeme Delaveau, Jim Brown, John Marples, Mark Zollitsch, Matt Layden, Michael Waters, Paolo Bisol

No Comments

# Jim Brown's Coming Seaclipper 20 trimaran (the "Janganda")

December 16, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: Janganda, Janganda trimaran, Jim Brown, John Marples, plywood trimaran, Seaclipper 20, Seaclipper 20 trimaran, Seaclipper trimaran, Seaclipper trimarans, small multihull

## Comments

### **Brian Wickins**

January 3, 2010

Dear Sirs,

I am extremely interested in this project and would like to obtain the plans as soon as they are available.

Many thanks,

Brian W.

### **John Richardson**

February 12, 2010

where will the plans be available at.. Would like to obtain the plans

### **Small Tri Guy**

February 12, 2010

The building plans are being worked on at this time. Jim has informed me that he is building a 5 -6 foot model of this boat to test some things out first. I'll update the info here as I get more info.

### **Pete Shaw**

February 17, 2010

Listening to the MP3 I now know there will be an 8 foot square deck to accomodate some kind of tent.

There is the question of trailering to a launch site, then preparing the boat for launch. What should one expect this to entail as far as mast raising, extending the amas etc. in minutes/hours?

Could the amas stay folded until the craft is in the water? I would assume that is the case.

### **Small Tri Guy**

February 17, 2010

Hi Peter,

My understanding is that this boat will be simple to build, including an ultra-simple swing arm folding system (that was the initial design plan anyway). So the fold out amas should take just a few minutes if the end plans are what Jim originally had in mind.

The deck would be "trailerable" width, so no need to demount it. I'm not sure whether the swing arm system can remain folded as the boat goes into the water and then unfolded while in the water. Jim told me he is building a small model right now in order to try and work out the last details.

### **Pippo Bianco**

March 14, 2010

Any news from Mr. Brown on this project?

### **Small Tri Guy**

March 14, 2010

Hi Pippo,

There will probably be an announcement at this site when the final plans are released.

# Building an Ulua & Tamanu as Trimarans

December 23, 2009

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger, double outrigger sailing canoe, Gay Dierking, Tamanu, Tamanu Trimaran, Ulua, Ulua trimaran

No Comments

# A Spanish Rose (Trimaran)

January 4, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: homebuilt small trimaran, outrigger canoe, small trimaran, Spanish trimaran, trimaran sailing canoe

## Comments

**Jordi**

February 23, 2010

Me gustaria ponerme en contacto con el autor de este trimaran pues yo estoy intentando hacer lo mismo. Gracias

**Small Tri Guy**

February 23, 2010

Hi Jordi,

I don't have Jose's email address on file. Sorry about that. But Gary Dierking may be able to help you out ... <http://homepages.paradise.net.nz/garyd/>

# John Marples Talks about the Constant Camber Boatbuilding Method

January 12, 2010

Categories: Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: build trimaran, cold mold boatbuilding, Constant Camber, Constant Camber boat building, Jim Brown, John Marples, multihulls, trimarans

## Comments

**Walter Gotham**

February 6, 2010

Great interview, thanks! I spent an enjoyable morning with John 20+ years ago when he was in Port Orchard and left with a set of CC23 plans. My own CC23 has given me 15+ years of enjoyable sailing on both the West and East coasts. The Constant Camber method is everything that John says it is and my boat has held up very well with minimal maintenance.

**Jim Turner**

July 29, 2010

I am in the later stages of building a CC23 Cyclone. I am very impressed by the method and how well the various components fit together once they have been constructed to plan. I now have a very good mold which needs a new home. I am willing to deliver free within

200 mi of Bangor, ME. I can be contacted at

[jwmt\\_dot\\_turner\\_at\\_myfairpoint\\_dot\\_net](mailto:jwmt_dot_turner_at_myfairpoint_dot_net)

**Victor Lipscomb**

November 9, 2022

Hello, Is there any information concerning repairs to the hull. I have two 10" piling holes in a 38'CC catamaran made with okoume plywood.

Thanks, Victor

# The Europa 20 Beach Trimaran (New Design)

January 20, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: beach trimaran, Chris Ostlind, Europa 20, Europa 20 Beach Trimaran, Sodeb'O, Sodeb'O trimaran

## Comments

### **Antonio Bettencourt**

January 23, 2011

Hi , I've seen your design of the Europa 20 and I liked alot, I have knowlegde of composites and infusion,matter a fact I work in a high tech shipyard, so I would like to know what are the possibilities to have the plans to build it here in Switzerland, I think it would be fun and practical for the lakes with no need of harbour place, write me back best regards Antonio Bettencourt

### **Charles Price**

October 7, 2011

Hi. I'm interested in getting plans to build the Europa 20. I'm looking for a demountable tri in the 20 foot range with the potential to fly the main hull made to hike out or trapeze. A boat made just to flat out sail with no added frills. I like many of the E 20's features: the cockpit, the wave piercing bow, the placement of the daggerboard, how the crossbeams attach to the main hull. All the best. Charles

### **steven mclaughlin**

December 19, 2014

love this design saw it when it first came out .thought I saw a post where someone had begun to build one and was interested to see pictures of the completed project. how many of the Europa 20s have been built and where they might be seen . im on the east coast of the us , mid atlantic region Chesapeake bay. like the lines of this boat, would like to see a sailing version and the layout and complexity of the lines and halyards .all up weight. how long it would take to set up. I also would like to know if this is truly trailerable or demountable. looks a lot dryer than the weta and faster than the windrider 17

### **barry I arnison**

May 27, 2020

how can i sail it downsizing from a tornado

# Geoff Holt's Round Britain Adventure in a Challenger Trimaran

January 27, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Challenger trimaran, Geoff Holt, geoffholt.com, Personal Everest, Walking on Water book

No Comments

# Building a Solo 16 Trimaran

February 3, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: buildboats.com, Chris Ostlind, Solo 16, Solo 16 trimaran, Tom Raidna, Trilars trimaran, www.buildboats.com

## Comments

**Rod**

November 15, 2010

Tom,

Haven't seen any updates in a while. Are you still building?

**Small Tri Guy**

November 15, 2010

I'm sure that Tom would be glad to offer some more info about this project at his website <http://www.buildboats.com>

**Tom Raidna**

February 16, 2020

Long story short, the boat designer had a great idea here, but the plans were a work in progress and not completely flushed out. I have redrawn parts myself in Hulls software, but it's just not come to fruition. I still love the look of this concept!!



# Recalling the Horstman TriStar 18 Trimaran

February 4, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chem Tech epoxy, Classic Yacht Charter, Ed Horstman, Folbot Kayaks, TriStar 18, TriStar 18 trimaran, West Systems epoxy, Windrider 17 trimaran, windrider trimaran

## Comments

**Vance Harmon**

February 7, 2018

I built one in 1976 – my first boat. My father had built 4 Trimarans ... two daysailers and two larger ones. It was quite a learning experience. I have made a living working on boats since but I think sometimes that I should, just for the hell of it, build another one for fun.

# Classic Supernova Trimaran Brochure and Pictures

February 8, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: beach trimaran, dinghy trimaran, Ib Pors Nielsen, small trimaran, Supernova trimaran

## Comments

**Graham Wheeler**

February 13, 2010

I have recently purchased a Supernova Trimaran here in New Zealand. I have sailed it about 5 times since getting it , to date mainly in flat water whilst I come to grips with it . (never having sailed a trimaran before). It is a fabulous little boat capable of quite a turn of speed. Will take my gps next time. I have added a few refinements eg furler for the jib and some extra fittings. I can rig and launch it by myself and sail it singlehandedly. I feel it was certainly a great design way ahead of its time. Not sure how old my boat is but it is in fantastic condition and the sails are great considering its probable age. I am in the throgs of getting a more suitable trailer to speed up the riggings and launching process. I will post some photos sailing here in Auckland soon.

**Peter**

August 3, 2011

Dear Supernova Owners!

I've just bought a supernova too, but the daggerboard(keel) is missing. Can someone please help me with photos, measurements or anything? My email is: toydor @ gmail .com

Thanks a lot:

Peter from Hungary

**frans**

April 4, 2012

hy guys looking for a instrution Manuel for a super nova trimaran

frans van den broek

Holland

**John Gibler**

May 15, 2013

Hello

I am from Denmark and I got hold of the missing instruction manual for the Supernova.

Please tell me how I can upload it to your website.

Best regards John Gibler

**Small Tri Guy**

May 15, 2013

Hi John,

Thanks so much for your willingness to share the manual with all of us. Is there any way that you can send me the pdf directly? Perhaps via email here? Let me know. If not, then we'll have to think about some website that will accept uploads (someplace that would allow you to do that and then send me a download link). There is nowhere for you to do any direct uploads on smalltrimarans.com

Let me know what you think. I will await your reply. And thanks again for sharing material like this with the small tri community!

**John Gibler**

May 16, 2013

Dear Supernova lovers

I hope you will get benefit from the manual. I know that some people have asked for it.

Here is a little contest: (no prize to win though) Can you explain why the sailnumbering on the Elvstrøm sails for the Supernova are letters and placed vertical ??

Best regards

John Gibler

**Tom Bøjland**

July 9, 2013

Can't remember the sail no. story, but as a big kid i was one of the test pilots on the first 2 prototypes Ib Pors Nielsen build, it was around 79-80.

We broke them to pieces every day and every night Ib fixed the rigs and platforms and spend time on figuring out how to make things strong enough without cost going up - btw, the prototypes had even smaller sidehulls.

12 years ago i accidently got a Supernova - lenghtned the mast, added another panel in the main and added trapezez.

in less than 10 knots it was fine, and in light stuff, it could follow a 505 on the beat (dead meat on the run - not enough canvas)

More than 10 knots – still break to pieces!

Sold it again!

To be honest – fine idea, but the way its build, it was so fragile compared to anything else that floats on more than one hul.

**John Gibler**

July 9, 2013

Thank you Tom for your story from the early days of Supernova.

Here is the solution to the sailnumbering: By only using symmetrical letters: A H I M O T U V WW and placing them vertical, then the sailnumber is identical seen from both sides of the sail.

Happy summer to you all from John Gibler !

**Morten Kohlenberg**

July 17, 2013

Hi supernova sailors

I bought a supernova last year ( greate boat ) and have been sailing In South Denmark in 20 to 25 knots Wind – and making 19 kn ón The gps. But the stringers broke so they are now made stronger. I have changed The Angel on The side hulls so that The front point a little up, i think that it had to be sailed on The main hull. I Think like Tom that it nede more power in The main sail, does some one have experience with a bigger main.? And a genaker??

**jeroen denhartog**

March 20, 2014

Hi Supernova sailors,

I have a centre hull (extra) here in Holland.

When some one has interest then contact me for more details.

Regards, Jeroen

**Mark Hicks**

July 18, 2014

Hi All – I'm sure this has been a subject before, but with our tris being few and far between the chance of a class race is vanishingly small – although if anyone wants to come down to the severn in the UK and have a go let me know ! BUT this means that to race we need a handicap – has anyone got a PY number for their supernova ? Somewhere in the documentation it mentions laser equivalent – but it would be good to get something more evidence based.

Thanks,

Mark

**Rasmus Møller**

August 3, 2016

Hi all,

I am also from Denmark; still learning to sail the SuperNova trimaran, that I acquired last year. I got hold of another, slightly different Supernova PDF manual (in Danish) including measurement drawings for sails. I'd like to upload it here, too.

**Small Tri Guy**

August 3, 2016

Hi Rasmus,

Please send that manual to the email address on this page here: <http://smalltrimarans.com/blog/contact-small-tri-guy/>

I will be happy to upload it and then link to it on this page.

Thank you for your willingness to share it with us!

**Jean**

February 15, 2021

not sure if this blog is still active, but for what it's worth (it is actually a nice story...):

I refer to Mr Doug Green's account of the 2 supernova's that were with the college of his dad.

Sometime in 1998, at a garage sale near portsdown road area in Singapore, my attention was drawn to some pieces of eqpt covered by tropical green of the jungle. It was a dismantled supernova, under a cover of green moss and other greenery. I purchased/got it for 50 SGD and brought it to our garden with a pick-up truck. The person who sold it mentioned it has been used by the college and got damaged when landing on the beach too violently, years ago, and then got forgotten. It missed the lock keys to attach the hulls to the frame, and the boom was damaged. The bottom pin of the mast was a bit distorted as well. That all got fixed through a friend that was experienced in aluminium parts welding. He also arranged for new handmade SS lock devices.

When we left Singapore, we loaded the supernova in our furniture container back to Netherlands (my wife is still angry as some kids toys had to make place for this "garbage" that had not even gone to water yet). Back in Europe, we have used it with the kids, and few years later one sidehull got broken when we took the boat into some bad wind and gusts. I agree, the angle of those side-hulls is too low, which tends to have them take a dive. They are not designed to brake the full boat momentum and thus easily break. So we recovered half of the sidehull from the water during calmer wheather, but have no idea how to repair it, as it is really thin FRP layering.

Anyway, this is the story of at least one of the supernova's that got built in Indonesia in the 80's and ended up in netherlands.

In case someone still has a spare sidehull to let go, let me know... I miss the port side hull

**Adam Lehan**

May 7, 2021

Hi. I see someone did ask in 2014 but I can't see a reply or find the information anywhere else. Does anyone know the PY number for the Supernova trimaran please.

**Mark Hicks**

May 7, 2021

Hi there Adam, i never found out the PY ! Sadly my supernova took off on a storm one night back in 2018 and was damaged beyond repair – i miss it. If anyone wants to hand one on, there a berth in South West England free !

**Adam Lehan**

May 8, 2021

Hi Mark.

Thanks for the reply. If anyone else knows of the PY number I'd still like to hear.

I know about storms. My Laser Vortex got blown over onto the next boat in the park. Unfortunately it was my Supernova trimaran, I can't believe neither of them were damaged.

# Small Trimarans at the Annapolis Boat Show

February 20, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Annapolis Boat Show, corsair trimaran, Dragonfly trimaran, Small Trimaran Videos, small trimarans, Telstar trimaran, Weta trimaran

No Comments

# Windrider Trimarans Camp-Cruising in Southwinds Magazine

February 28, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Southwinds Magazine, Windrider trimarans. Windrider trimaran

No Comments

# The Cross 18 Trimaran: An Interview with Jeff Turner

March 3, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Cross 18, Cross 18 trimaran, Cross Multihulls, Cross trimaran, CrossMultihulls.com, Norm Cross, Norman Cross

## Comments

### Eric Dahlkamp

March 9, 2011

I recently came the proud owner of a lovely Cross 18. This is a fun craft. I attached a few video links to show her under sail. Tramps are being added to keep her drier – and be safer when riding the windward ama.

<http://www.youtube.com/watch?v=yJzkhHPFFoA>

<http://www.youtube.com/watch?v=0saBOfykiCk>

<http://www.youtube.com/watch?v=MYDx5dXhk2Y>

<http://www.youtube.com/watch?v=Gxg6Mx3Th2U>

<http://www.youtube.com/watch?v=A9ZnD5pxB-8&feature=related>

### Bill Harbison

November 30, 2011

Can someone give me Jeff Turner's email address. When I try to contact him through the site I get an error message about "outlook express" I wish to purchase a set of plans if they are available.

Thanks,

Bill

### Anthony Laskis

March 15, 2015

The <http://www.crossmultihulls.com> website no longer works. Can someone tell me how to get a hold Mr. turner, so that I can order plans for the N. Cross designs.

### Small Tri Guy

March 15, 2015

Hi Anthony,

Jeff seems to have dropped out of the picture for the moment. If I do hear from him and am able to post his contact info at some point then I'll update this post with that info.

### Stephane Charron

November 10, 2016

Any news from Mr Turner ?

How to get cross 18 plans ?

Stephane

### Small Tri Guy

November 10, 2016

Not yet Stephane.

### WOLFGANG RITTER

July 29, 2019

Is there any news on the building plans of the CROSS 18. I would like to purchase a set of plans

### Small Tri Guy

July 29, 2019

Not yet Wolfgang.

### Kim Miller

April 8, 2022

Jeff Turner is my brother. He's still the keeper of the plans. His email is [jetcross42@gmail.com](mailto:jetcross42@gmail.com).

### WOLFGANG RITTER

April 26, 2022

Hello Kim

I have sent 3 mail to the indicated mailbox of Your brother to get in touch with me but I have not received any answer yet. Could You help me please.

Thank You

Wolfgang

### Greg

January 1, 2023

Hi, where j can buy Norman Cross trimaran plans 40/53 ft ??

### Greg

January 1, 2023

Wolfgang Ritter do you had any contact with Jeff Turner ??

### Volker

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

February 3, 2023

For contacting Jeff about plans, following address works

[crossmultihulls@gmail.com](mailto:crossmultihulls@gmail.com)



## Jim Brown's Multihull Pioneers Videos

March 3, 2010

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Arthur Piver, Jim Brown, Jim Brown trimaran video, Jim Brown trimaran videos, multihull pioneer videos, Multihull pioneers, Piver Nugget, Piver Nugget Trimaran

### Comments

**Max**

March 4, 2010

What great video for those of us who were growing up in the 60's and 70's and sort of knew this stuff was going on, but didn't really understand it at the time — it's really history. Thanks Jim.

<http://bursledonblog.blogspot.com/>

**Bill**

March 8, 2010

Another great set of videos from JB, who is in my humble opinion, the Trimaran Master. I can't wait to get my hands on the plans for JB's new baby, his Seaclipper 20. Thanks James, for all your works.

**Lin**

May 15, 2010

Thank you for the great information. Enjoyed the videos. I was researching some material, since MY sailing pioneer is no longer with us and I am writing his story. I learned a lot about how he came to love multihulls. We sailed to Fiji in 1990 from Hawaii on I THINK a 36 ft either Piver or Brown. I have to keep looking. Wow I learned a lot.

Thanks again.

# A DIY Homebuilt 16 Foot Trimaran Design

March 12, 2010

Categories: Small Tri Info - All

Tags: 16 foot trimaran, build trimaran, build wood trimaran, building wood trimaran, plywood trimaran, small trimaran, trimaran building, trimaran construction, trimaran under construction

## Comments

**terry burton**

May 21, 2010

I have built a couple of trimarans in the past. 16 ft x 2 ft hull and outriggers and another 16 ft x 18" hull and outriggers. They sailed well but were awful at going about. They both had leeboards.

I am thinking of building a 12 ft x 1 ft hull plus very fine outriggers and a dagger board with a 6 ft overall beam with seats [ planks ] either side set on the beams.

does this sound to you a reasonable configuration.

best wishes

terry

**Small Tri Guy**

May 21, 2010

Hi Terry,

I could offer an opinion here, but it would be unqualified (from a proper designer's perspective). Designing a boat properly takes years of experience, which is probably why you're small tris didn't "go about" well in the past. I strongly urge you to check out a few of the smaller model designs you'll find either here at SmallTrimarans.com or via the links you'll find here. For example, you may wish to check out some of the smaller models designed by any of the following:

Richard Woods — <http://smalltrimarans.com/blog/?p=3123> or Chris Ostlind — <http://smalltrimarans.com/blog/?p=1983> or Kellan Hatch — <http://smalltrimarans.com/blog/?p=1921> or one of the other designers of small craft that can be found at Duckworks — <http://www.duckworksbbbs.com/plans.htm>

Their plans for smaller boats are rather inexpensive and you'll be able to begin your project being confident that your vaka and ama lengths and beam width are in good proportion.

**Jim Gallant**

May 24, 2010

My original canoe trimaran turned on a dime. You could easily sail up into marina alleys and come about and sail back out. Lots o' fun.

**Jack Spoering**

September 13, 2010

I think I have just found my boat, Jim. When will plans be available

Aloha – Jack

# Outrigger 26 Trimaran Brochure

March 19, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Dick Newick Outrigger 26, Outrigger 26, Outrigger 26 trimaran, Somersault 26, Somersault 26 trimaran

No Comments

# Telstar 28 Trimaran Videos

March 19, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Performance Cruising, Telstar 28 Trimaran, Telstar trimaran, Tony Smith

## Comments

**adriftatsea**

March 29, 2010

The first video is a promotional video IIRC. The next two are actually informational/instructional reference videos. The second video is for setting up the screacher furling unit. The third is a demonstration of the folding system, featuring Will Hershfeld, who worked at Performance Cruising until the company split up.

The fourth video was shot by another owner. I'd point out that the fifth video was actually shot by Will Hershfeld. I am the individual in the Tilley hat in that video. :-)

The last video is actually one I made and posted. I own the Telstar 28 featured in the video.

Earlier this year, the Telstar 28 group was split off and formed into a new company called Performance Sailing. The Gemini catamaran is still being produced by Performance Cruising, and is now owned by Laura Hershfeld's management company and is partnered with the Catamaran Company, who is now running their marina among other things.

I believe that the reason production has been halted temporarily is that Tony and Sue Smith are in the process of building a customized Telstar 28, which they will be trailering up to the Pacific Northwest and sailing down the Pacific coast of North America. This is based on what was posted on the International Telstar Owner's Association forum, and may or may not be correct.

I also have a couple of other Telstar 28 videos posted on youtube, including two that were taken during small craft warning conditions. If anyone has any questions about the Telstar 28, I'd be more than happy to answer them.

**Steve Drescher**

June 2, 2010

Just purchased a telstar 28 and it was apparently a prototype model. As such the trailer setup is, well, unique. Actually, it needs to be completely redone and I was wondering if you knew of any schematics, blue prints or diagrams which show the trailer and what it's supposed to look like. Also, if you have or know of any pics or diagrams of the bed and table for down below, that'd be immensely helpful.

Thanks

Steve

p.s. Thanks for all the info you've posted. It's been an incredible help.

**Small Tri Guy**

June 3, 2010

Hi Steve,

My guess is the folks at Performance Cruising ... <http://www.performancecruising.com/> ... should be able to help you. If I were you I'd contact them immediately.

# Introducing the Crusoe Craft Trimaran

March 26, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Crusoe Craft, Crusoe Craft Trimaran, Crusoe trimaran, Guy Joubert

## Comments

**Charlie**

May 13, 2010

how much in the usa?

**Small Tri Guy**

May 13, 2010

Good question Charlie. I don't even know how much in South Africa :-)

**Ian munro**

June 29, 2011

Hi, very interesting idea, you are to be congratulated.

I am living in Vietnam which has an extensive coastline and your craft would be ideal for this environment.

Could you give me an idea of the cost of the boat and maybe transport costs as well.

Thanks and good luck

Ian

**Guy Joubert**

July 14, 2011

Hi Gents

thanks for your comments and questions and apologies for late find on the questions!! in future please contact me direct on my email address on [guy@crusoeecraft.com](mailto:guy@crusoeecraft.com).

We have an automated reply on our website on the following link. It is easy to fill in by ticking the various fields and goes into detail on the equipment and trailering also.

Please be sure to submit your port of entry for containerization and should you have any special requests or recommendations please feel free to put in as much

information as you need. See: <http://www.crusoeecraft.com/company.enquiry.php>

Chat soon

Guy Joubert

# Seaclipper 20 Plans Now Unleashed

March 29, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Jim Brown seaclipper 20, Jim Brown Seaclipper 20 trimaran, Jim Brown trimaran, Seaclipper 20, Seaclipper 20 trimaran

## Comments

**Bill**

March 29, 2010

G'day Joe,

I've been all over <http://www.searunner.com> like a rash but I can find no mention of the Seaclipper 20 plans. Can you please point me to the URL that contains the sales page for the Sea Clipper 20 plans.

Thanking you in advance for your help.

Bill

Australia

**Small Tri Guy**

March 29, 2010

Hi Bill,

Great question. I spoke to John Marples today and he told me that his website hasn't been updated yet. As far as I know, the sale price for the plans is just \$250. But please don't hesitate to contact John directly for any questions, including plan pricing. He is always happy to respond to email questions and his phone number is also listed on the Searunner.com website.

**Mark**

March 30, 2010

Joe, this is very exciting! I think there is a great market for this design. Cost effective, trailerable, and a relatively simple build process.

As expected, John is very responsive and I look forward to seeing the study plans next week.

Did you get any hints from Jim, John or Scott on the typical material costs?

I can confirm that the plan price is \$250 and the study plan is \$20.

**Klaus**

March 30, 2010

Congratulation for this nice new trimaran! I sailed a tremolino years ago and had so much fun and speed. Are the plans also available in metric measures? Many european hobby boatbuilder would appreciate this service :) Thank you and best regards from Hamburg, Klaus

**Small Tri Guy**

March 30, 2010

Hi Mark, thanks for confirming. I've never discussed the material costs. From what I can guess (based upon my recent inquiries into the cost of wood, used sailing rigs and epoxy this year), if you can get a used cat rig with sails cheap (or free) ... and if you can buy plywood with exterior glue (not necessarily good looking "marine-grade" ply) then the most expensive material will be the epoxy and fiberglass sheathing. Budget at least \$1,000 for the epoxy and cloth. So the entire project could run somewhere between \$2,200 and \$3,500, depending upon how frugal a builder can be.

**Dan**

April 8, 2010

I'm glad to see this type of boat experiencing a resurgence. It's exactly the type of use my Tamanu build will see. I love the down & dirty user mentality of the build. Moreover, with Brown and Marples' experience you know it will be a nice performing product. I am a bit disappointed in the 800 lb dry weight prediction as I can't see a real beackcruiser dragging 800 lbs up a beach, but perhaps the weight reflects the cheap and thick ply specs in the design. In all other respects, I love the design ideas though. Inexpensive rigs to reuse makes most of these projects accessable though. I love how the boat is foldable on the water and the rig can remain stepped throughout the process. Having a stable camping platform afloat is really nice as well. Stepping the rig, launching, and then unfolding seems smart as well. I'm right in the midst of my Tamanu project, but the Jaganda is a really nice approach for quick building, quick launching, and quick sailing. Love the concept!

Dan

**Drew**

April 24, 2014

No-one has commented on this page for a while. Has anyone else tried finding out how to buy plans for the SC20 by clicking on the link? I have tried but haven't been successful. Any tips?

**Small Tri Guy**

April 24, 2014

Hi Drew,

John has had lots of problems updating his website. It's a long story that I won't bore you with. Just know that you can always reach him via email at marplesmarine AT gmail DOT com if you want to purchase any searunner / seaclipper multihull building plans.

**Drew**

April 25, 2014

Pity about the website but great that I can still get hold of him. Thanks for the info.

**Small Tri Guy**

April 25, 2014

Drew, let me know if you have any problems contacting John. (You shouldn't, as I use that email address I gave to you all the time). I will assist you in reaching him.

**Drew**

May 3, 2014

Thanks,

It seems he is on holiday until 13th May? So I expect I'll get a reply from him when he returns.

**Small Tri Guy**

May 3, 2014

Hi Drew,

Yes, apparently John is on vacation until then. He is always available when he is in the office so he should be around to answer all your questions then.

**Recep**

August 5, 2019

Do the plans include complete sailplan and rigging diy?. I mean building mast, boom etc.? I don't have any access to second hand beach cats. They are not very popular in turkey and new ones are really very expensive because of usd exchange rate. And are the plans in metric measures?

**Small Tri Guy**

August 5, 2019

Great questions Recep. Ask John Marples directly via his contact info on <http://www.searunner.com> and he will answer all of your questions.

**Ellmo**

September 5, 2021

Trimaran Beautiful.

Eu sou Brasileiro, quero fabricar um (Trimaran). PODEM AJUDAR.

# A Homebuilt Kevlar Trimaran Sailing Canoe

April 7, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Kevlar boat, Kevlar canoe, trimaran canoe, trimaran sailing canoe

## Comments

**Tony Watermann**

September 19, 2016

I know this is going back a while but just saw this post. Love the utility factor built into this little boat. It looks very similar to the Bazooka tri's and every bit as much fun. I have 2 x Bazookas and 1 x Supernova (I have yet to get the Supernova on the water, just too distracted with having fun on the bazookas). Interesting to read the past sailing history and final comments about having more fun on this little boat than any other.

I have toyed with the idea of getting a bigger boat but everything I look at I see lots of \$ signs in outlay as well as maintenance costs and have eventually decided that I would not get any more fun out of a bigger boat than what we are having with 2 smaller ones.

So Rex if you are still out there and still sailing this little beauty post us an update, changes, design mods, any pics of how you made her etc.

Thanks, Tony.

**Small Tri Guy**

September 19, 2016

Hi Tony,

Thanks for your follow up questions here. I recently read a great book that teaches how to build a boat like this. You can find out more about it on the author's (Sam Rizzetta) website - <https://samrizzetta.com/canoes-kayaks/>

I think some folks reading this post might like it.

**Nicky**

January 28, 2019

Trying to locate Rex Gilfillan as real ywould like to hear more about his trimaran canoe .

If he's still in NZ would love to have a look at it

Do you know of his whereabouts ??

**Small Tri Guy**

January 28, 2019

Perhaps one of our readers might know Nicky.



# TRIAK Trimaran Kayak – Born to Sail

April 12, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Triak kayak, Triak trimaran, TRIAK Trimaran Kayak, TriakSports, TriakSports.com, Trimaran Kayak

## Comments

**Sean Ordonez**

August 31, 2010

Gentlemen,

My compliments , I am a professional windsurfer and avid board builder, been around the block in our water world industry, I must say that you guys did a beautiful job on your new tiak trimaran kayak... I made a trimaran surfing canoe play boat and I wish I would of been able to make something as nice as what you made...

All the best, keep the winds to your back...

Aloha

One Love

Sean Ordonez

**Rudy Anzaldua**

December 27, 2015

I like the ingenuity that you did to make this kayak a very easy multi-purpose craft I would like to have the information on where I could buy one of these kayaks sail kit included

**thomas burton**

August 5, 2017

hello

are there any companies in the UK that supply small trimarans for example the Triak.

best wishes

thomas

**John Allsop**

April 25, 2019

Is the Triak still on sale? if it is where? Since West Coast Sailing have dropped it, it seems to have disappeared.

**Small Tri Guy**

April 25, 2019

Just heard from someone at West Coast Sailing ([www.westcoastsailing.net](http://www.westcoastsailing.net)) and he shared the following:

“ We’re handing the distribution of the Triak back to Triak Sports directly. So we’re no longer bringing in containers of boats and unfortunately we’re completely out. I’m not sure what they’re plan is for stocking and ordering boats but reaching out through their website will be the best way to get in touch with them. – <https://triak.net/> “

**john shilander**

May 3, 2019

I have recently bought an old triak 2005? and no idea how the sail is supposed to work ... I added a mast like the newer ones ....but it keeps capsizing....I keep trying to figure it out

**john allsop**

May 4, 2019

John Shilander, to be sure you have bought what is called the Mark 1. The easy way to spot the difference to the Mark 2 is that you will have a folding centre board, it folds up wards. And your outriggers are smaller. Now you are using the outriggers? It had an inverted V mast and a sail that hung there, very difficult to rig. So you have put a hole in the deck for the mast ( triak told me not to do that when I asked them) you will have also put something with a hole in it for the foot of the mast to go into. So you can furl the sail around round the mast. I would suggest that you don,t unreef all the sail, using a smaller one, or using a sail like Flat Earth or Kayaksailor. If you have time when sailing be prepared to let the sail go, when the wind goes out of the sail you might not go over. One of the improvements the Mark 2 has is that the pontoons are about 50% bigger than the ones on the Mark 1.

**John Allsop**

October 13, 2019

It looks like TRIAK is still active and still in business which is good news. I have just looked on their site and there are new photos so Thayer might be selling a few craft. U.S. owners know all about this excellent sailing and paddling kayak and I wish I could show mine off more often, everyone who see it here in the Isles of Scilly are very interested.

**Doug Marshall**

October 18, 2019

Hello,

We have one of the original hand made Triaks by Charlton, with the blueprints. An amazing craft!

**John Allsop**

October 29, 2019

My first Triak was the , I think original design with the foils, this is now in Ontario with my son in law and grandson, they use it on lake Ontario. My present one is the newer design with larger outriggers and a dagger board instead of the folding centre board. Owing to commitments I don,t use it as often as I would like to. Something I will have to sort out for next year.

**John Allsop**

January 12, 2020

It seems the Triak is now no longer available. The web site seems to have gone. Which is a pity. I still like mine and intend to use it this summer here in the UK. I wonder is there any way to order these from China as that is where production went.

**Small Tri Guy**

January 12, 2020

If Triak is gone then I know it will be missed. There are things about its design that seem very worthwhile.

**John Allsop**

January 13, 2020

I hope it can stay available, the owner of them seems somehow to keep going. I like them, I had the first type which became the MK1, it is now in Toronto with my Grandson, i changed the sail on that one to a Kayaksailor Sail with their jib. I now have the MK2 here in the Isles of Scilly in the UK. There is always a lot of interest in it when i am out ,i just wish it would have created sales. The only point i think needs improving is the part at the top of the mast that supposed to stop the job wrapping round the mast.

**fletcher**

April 4, 2020

Using a 2010 Triak on fresh water in Maine. Fun little boat — we are still getting acquainted! Re-rigged the down haul on the spinnaker as another owner recommended—made a huge improvement for taking it down and into snuffer. This year I want to add the plastic tube on halyard and replace all lines—color coded to reduce confusion—it gets a bit messy in cockpit with all the lines.

**John Allsop**

April 4, 2020

Fletcher, nice to hear from another Triak owner. I am thinking of getting rid of the snuffer if I can. On my Klepper kayak for the jib I have a dingy type furler which wraps the jib around itself when you want to reef it in, it stays there like a forestay. I will try and sort it out when it's warmer as the spinnaker is very much like a jib, if it works the spinnaker won't have to be lowered but there will still be a thin line along the deck to the cockpit from the furling device. Of course this probably won't stop the forestay from trying to wind round the mast. At the top of the mast where the spinnaker attaches there is a swivelling device that allows the spinnaker or jib to wrap without problems

**fletcher**

April 18, 2020

John – Your idea of a furling system for the Spinnaker got me excited. Not being familiar with the idea-I started searching dinghy's, furling systems etc. I did find an intriguing one by "Nautos "with a review from a guy with a Triak! Sail size is a question. Do you have access to yours that you could measure the length of the spinnaker foot? For the system I saw it can not be more than 10 feet. My email is – dfhin0 AT cox DOT net – if we could converse directly that would be good.

**john Allsop**

April 19, 2020

The spinnaker foot is about 79 inches. I have been looking further into the jib furlers, there are 3 types an open drum like I use on my kayak, a closed drum, and an endless line one where it appears we can,t run out of line. these are by Barton, Seasure, Selden, and RWO. One of Bartons is large enough to have a line 8.5 metres long which would be plenty long enough but I don,t know how big a diameter the spool is. I have to work outside in a public place so this virus regulations say I shouldn,t. One thing we need is a way to stop the forestay wrapping around the mast which it does sometimes when the mast is rotated.

**john Allsop**

May 24, 2020

The furling system I am trying is working reasonably well on grass, it has to work on land before going on the water. I still havn,t found a way to stop the line that hoists up the spinnaker and runs down the mast from wrapping round the mast when the main is deployed which of course happens when the mast is rotated. I have read that the Hobie sailing kayak has the same problem when their spinnaker is used.

**fletcher**

May 28, 2020

John—what about securing the top sail swivel directly to the swivel bar off the top of the mast—instead of the halyard. This is what I am hoping to do with my triak when I can get to Maine.

fletcher

**john Allsop**

May 28, 2020

fletcher getting rid of the halyard will probably help. Today I had another go at the reefing , it was fairly windy and it didn,t work as good as last time, although it was as tight as I could make it from the front of the boat up to the mast it was still loose enough for the spinnaker to tangle itself when I wound it around it,s self. I will try a jib from my Klepper, it,s halyard going from the bow up to the mast and down is sewn into the jib making the leading edge of the jib tighter than on the Triak spinnaker, it is in effect a forestay. I will put this jib on and see if that works every time, it does on the Klepper. Maybe we should be thinking of a jib and not a spinnaker, they seem to be very similar. This Triak spinnaker is very much like a Klepper jib.

**fletcher**

June 19, 2020

John—finally got to Maine—opened the camp—and got out the Triak. I removed the spinnaker halyard—attached my furling drum to the bow eye—used the line from the tack to tie off the head to the new head swivel. Worked good on land—so I put her in the water. Initially I just used the J-S (jib-spinnaker). I liked the way it handled—no main sail. As I got more adventurous I let everything out—almost to much sail for me! I thought I was going to turtle her—so did the shore side observers!! It worked well enough that I will not go back to the snuffer. Now I want to find a standard jib if possible to replace the spinnaker. I am thinking of something with a 11-12 foot luff and a 5-6 foot foot. I am hopeful there is a stock jib out there that would work. Did you get to try the jib from your other boat?

Another idea I feel would be good is to have a jib with a wire rope in the luff to aid rolling.

**John Mullin**

August 31, 2021

I'm trying to find a triak sailing kayak to buy

**Doug Marshall**

September 1, 2021

I have an original hand built fiberglass one for sale.

**Small Tri Guy**

September 1, 2021

Let me know if you guys want to connect directly (I will help)

**Doug Marshall**

September 1, 2021

Email me directly – DougMarshalls AT gmail DOT com

**Doug Marshall**

January 10, 2022

Still have an original Charleton Bullock built Triak for sale. I also have the hand drawn build prints by Charleton. Stored inside my garage except when used. I am getting old so time to sail it to the next to a new harbor.

**Scott**

February 10, 2022

Hi, I was just given a Triak by friend who used it once and then parked it in his back yard for a few years and never used it. Its intact except for whatever piece is required to attach the spinnaker to the top of the mast and of course run the halyard. He never used the spinnaker so has no idea what I am talking about. Have searched the internet but can find no info. Can probably macgyver something but can any one advise what this part looks like or a photo or anything? I'm desperate. Thanks

**fletcher**

February 10, 2022

Hi Scott – fletcher here – I and John Allsop had been working on a fix for the spinnaker, and both concluded maybe a standard jib would be better. I have switched to a small spinnaker using a self furling drum I purchased from "Nautos hardware in Florida. I removed the halyard and rigged the jib as if it were a fore-stay. I have been pleased with the result. It eliminated all the problems I had experienced with the spinnaker and snuffer bag.

The part you are asking about can be made from a strip of flat bar stainless steel about 3/4" wide by about 4-5" long. Drilled at each end to fit the machine bolt in the top of the mast and a cleat from your halyard or fore-stay. Put a slight bend in it so line goes to the bow cleat. I can not give you my actual measurements as the boat is in storage at camp. Use some common sense and you can make something similar that works.

**Doug Marshall**

February 10, 2022

Hello,

The information I have is on a fiberglass hand built by Charlton. Is yours molded or fiberglass?

Doug

**john Allsop**

February 11, 2022

About time i reported back. I couldn't do much last year but as my son is now living here we will be able to take two boats out. The latest idea is to use a jib from one of my klepper kayaks. For furling i will use an RWO Furling Drum (friction version) R2090, on the drum it says R209, A what i will call a loop, this has to be made by joining the two ends with a Long Splice this splice doesn't make the rope thicker as it has to go through the furling drum and is locked at the cockpit in the usual small clam cleat, at the top of the jib i will use a top swivel such as an RWO R2080. On the usual furling drum a line is wound round the drum. To make this clearer look at furling drum R2090. Scott do you know if this is a MK 1 or MK2? the easy way to tell is does it have a folding centre board or i think its called a dagger board, the centre board folds up with a line in the cockpit this is MK 1, the dagger board is a loose item that is pushed down between your legs, this is the MK 2. The Mk 1 also has smaller pontoons (outriggers than the MK 2.) The Mk 1 is usually fibre glass and the MK 2 a sort of molded plastic, Also on the MK 2 the main sail is furled around the mast. These are good boats. If you have the MK 1 the sail is a Lateen type with a heavy mast arrangement, don't take it off as it is hard to put back on. But i would change it for a simpler sail rig, We can look into what is available later on. When the summer comes get out on the water as these are also good paddling boats with a short two blade paddle or a canoe paddle.

**Scott**

February 13, 2022

Thanks everyone for your suggestions. Mine is the Mk2 and I have no bolt or anything else to be honest at the top of the mast. The previous owner has no idea and as mentioned never even pulled the spinnaker out of the bag.

I found a video on you tube that shows a close up of the top of the mast so I'm going to try and rig something by hand. I think I can use the cap from a 29er spinnaker pole as it appears to be the same diameter as the top of the mast, use a bolt and some angle and I should be good to go. being in Australia means there are none of these around to compare what's needed but I think I can work it out.

**john Allsop**

February 14, 2022

Scott. The part at the top of the mast as supplied by Triak is quite simple and is supposed to stop the line that pulls up the spinnaker wrapping round the mast when the mast is rotated. It's very poor and hardly works as the line often goes round the mast. from what you say you have seen it. Even without the spinnaker it is a good sailing craft. There are not many around anywhere, i am in the UK in the Isles Of Scilly and i only know of one other Triak that is or was in the north of the country. I have tried to find out how Hobie stop there spinnaker having rotation problems but so far drawn a blank. If our Jib ideas work out there will be no line to pull up the Jib ( or spinnaker) Which will reduce the wrapping problem and i think what i and Fletcher are trying with a jib is the way to go and furling it around itself is easy. I might even try to turn the spinnaker into a jib by sewing a thicker line as a forestay, clipping it to the top with a swivel top and furling drum at the bottom. Please keep us posted. When spring arrives i will be on the water which is about 150 yards away at high tide.

# Anyone Know the History Behind Hartley's Lively 28 Trimaran?

April 19, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Hartley Lively 28 Trimaran, Hartley trimaran, Lively 28 Trimaran

## Comments

**Ri**

June 9, 2010

Hi.. I am pretty sure my Dad's boat , Sweet Sue (Richards Bay) was a Hartley 28 tri. He and I sailed up and down the South African coast, Nyaka Island to PE, for some years. We sailed by date, not weather, unlike the many many fair-weather sailors around, and I reckon it was the tri design that allowed us to do that – It just danced, the tougher the wind and the flatter the sea was blown. And at a goose-wing before the wind, it was such a pleasure with its wide deck :)

**Bob Larder**

June 15, 2010

Hi Ri.

Yes, as I recall, Sweet Sue was a Hartley 28, I sailed a few times with Walter, Richards Bay- Durban and back, fun boat.....and a great guy to sail with.

Loads of memories there!

Cheers

Bob

**Kim Stephenson**

July 3, 2010

H Kevin,

Good luck with your project. I am the proud owner of a Lively 28 built in 1971 in UK. She was a wreck when I bought her, and I have replaced 70% of the ply , new cabin decks etc. I think it might have actually been quicker to build from scratch. If you want any picks of hjings to help, let me know and I will try and sort it out. Hopefully you can pick up my address to contact me.

Kim

**Mervyn Pleace**

September 30, 2010

If you refer to the Hartley design Lively I built one in the 60' and 70's and subsequently sailed it from East Africa to the Med The Lively was his 35ft design. His 28ft. 6in design was called the Sparkle. They were similar in design but the Lively had asymmetric outer hulls.

If you are interested I have pics of both designs. Hartley's plans were very detailed.

**Andy Sanford**

October 25, 2010

The Lively 28 was designed by and plans are still sold by Hartley Boats in New Zealand. They also sell plans for a Lively 35 which has a 10' beam on the main hull.

**Kevin Grobler**

October 27, 2010

Hi Mervyn saw your comment i am currently building a Lively 28 would be interested in seeing any photos that you have you can forward to my email kevinfarsouth AT telkomsa.net

**Paul Hardy**

September 20, 2013

The plans can also be obtained from Hartley's website <http://www.hartley-boats.com> from correspondence with them they had an agreement for Clark Craft to sell the plans until Clark Craft quit paying royalties. The last time I looked the prices were even cheaper on Hartley-boats and the money is actually going to the legal rights holder. There is also a larger version, the Lively 34 which seems much more comfortable for cruising while weekending would best suit the 28.

The construction is simple plank on frame that anyone with even basic wood skills can build.

I am planning on building the 34 but I am using Sam Devlin's book on stitch n glue to convert the plans to stitch n glue which eliminates all the time and money spent on building a strongback.

**Dave Peak**

June 27, 2018

Any further details on converting to stitch and glue? Or any literature on the same?

**Alex**

October 7, 2018

It seems to me, that my reply is outdated. However, I found Lively 28 project pretty interesting for my own purposes (to build self-design trimaran).

Recently I asked Kevin – the builder of Lively 28 – about this boat and his experience. You could find web-source on the building process here – SV Farsouth – Main hull construction <https://svfarsouth.weebly.com/>

Kevin let me permission to share his answers. So, here you are))

1. Project weight

– The construction of the Hartley is very heavy estimate the boat to be about 2000kg

2. The main advantage

- The method of construction is very easy
- 3. Cruising and top speed
  - The boat is fairly slow and cruises at about 6-7 knts, the fastest speed was about 11knts in case of 25 knts of wind
- 4. Light wind and upwind performance
  - Upwind and light wind performance very poor
- 5. Sailing in bad (rough water) weather conditions
  - It sails well in rough water
- 6. Reefing time
  - Reefing would depend on type of rig/sails you fit
- 7. Sails area of the boat
  - I used main sail from a Beneteau 23 race boat not sure of the area.
- 8. Ama's construction
  - Not sure if the amas help much in performance

#### 9. Biggest disadvantages

- I would say the weight and upwind abilities are the biggest disadvantage of the boat.

However, I think that Lively 28 is still good tri project in case of some modifications (unfortunately, I do not have boat plans to check information).

- Boat should have bigger SA. I think, that Kevin's boat had not enough sails (Benetau 23 has 12 sq.m for the main sail and 23 sq.m of the total SA). Compare Lively 28 with the same size (28') BUCCANEER 28 (CROWTHER) with 56.67 m2 listed SA. So, it seems to me, that Lively 28 should have at least 40 m2 of sails.
- Ama's construction is not efficient for the asymmetry and small flippers. For that reason self-stabilizing construction from KLIS III project could give good upwind performance. Especially, in case of of asymmetrical daggerboards construction.
- New material could also decrease overall weight for the new seaworthy faster trimaran.

**Emma Soley**

July 29, 2020

As someone said earlier, the Hartley 28 is called a Sparkle. The 35 is the Lively.

# The One-of-A-Kind Flash Harry Trimaran

April 19, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Flash Harry trimaran, Grouch Marx trimaran, small trimaran, unique trimaran

## Comments

**paul**

June 5, 2017

Awesome trimarans! I'd love to know how high the foils/outriggers are when riding at speed? Does the entire boat foil over the water?

# Seaclipper 24 Trimaran On the Drawing Board

April 21, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown, Jim Brown trimaran, Jim Brown trimarans, John Marples, John Marples trimaran, John Marples trimarans, Seaclipper 24, Seaclipper 24 trimaran, Seaclipper trimaran, Seaclipper trimarans

No Comments

# Rebuilding a Kelsall Typhoon Trimaran

April 21, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Derek Kelsall Typhoon Trimaran, Kelsall Typhoon trimaran, Seacart 30, Seacart 30 trimaran, Typhoon Trimaran

## Comments

**Paul Brant**

April 22, 2010

Super article Simon. I cannot wait to see her fly this season.

**mike barnsley**

July 14, 2010

Simon,

Pleased to say the Soling jib you kindly lent me works very well indeed.

We had a maiden voyage on Redshank last weekend in F4 Langstone Harbour. All worked very well although I need to get the mainsail controls sorted... at present outhaul is useless, I have no cunningham and the nast spanner control need some refinement. I should have paid more attention looking at your set up!

She is certainly much more responsive then my Telstar and pointing as well – even with the diminutive Tornado centreboards.

Nexr trip we will be venturing further a field and see hwat she can do...

Rgds

Mike B

eiesual fual.

**ian o gorman**

August 22, 2010

Hi Simon, brilliant article. You say the changes to the daggerboard/rudder allow easy tacking and better pointing /speed. What exactly did you do here and where was the daggerboard

I currently sail a Fireball and Golden Shamrock (the prototype / Ron Holland) which myself, bro Ciaran and dad restored 3 years ago.

It now time to spend some time restoring Holly our Typhoon Trimaran; it was lake sailed for about 10 years but was neglected whenever we were restoring GS.

Where would I get the technical spec etc of of a Kelstall Typhoon .

I will copy you with the photos I have of poor Holly!! Ian talk soon

**simon whitehouse**

September 20, 2010

Hi Ian,

I know you posted a little while ago, i've only just checked back and seen your post- if you email me ( info AT responserigging DOT com ) I'll be more than happy to offer any help I can!

Simon

**Eli van Putten**

October 17, 2012

Recently i bought an original typhoon in Holland and trailered it to Lefkada Greece.

I sail tri's for several Years and own a 35ft.tri in Holland.

My typhoon is as far as I know in original state except for the possibility of a

bowsprit with a gennaker. The boat has a J22 jib that fits perfectly and a

new laminate mainsail. I liked the look of the boat, aesthetics were more important than comfort. It sails well but slow in light winds. Your central daggerboard is a good idea. Under Greece circumstances the boat is ideal wind, watertemp.beaching.

**olivier steuer**

June 5, 2022

Hi Simon,

Please contact me: [oliviersteuer@gmail.com](mailto:oliviersteuer@gmail.com)

I have a typhoon kellsall and want to get in touch with other owners to share tips and tricks and experiences.

like to hear from you!

Kind regards,

Olivier Steuer



# Hobie and Windrider Trimarans – A Comparison

April 26, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Hobie Mirage trimaran, Hobie Trimaran, Windrider 16, Windrider 16 trimaran, Windrider 17, Windrider 17 trimaran

## Comments

### Jack Streit

May 8, 2010

This posting has been most useful for me, as it has convinced me to buy the Hobie. My first experience with a trimaran was when I lived on the Monterey Peninsula and I bought an F24, a fantastic boat (15 knots closely hauled), but I then retired and had to down-size. I moved to Vermont and bought the Windrider 16, which I sailed on Lake Champlain. I can testify that it is a safe but extremely wet boat, even though I only sailed it in a relatively protected area of the lake. Be prepared to get soaked and to put a lot of effort into bailing. I did sail on a friend's Windrider 17 on Lake George in New York and it was definitely much drier. I am now back in California, this time in San Diego and the Hobie seems like the best choice for me. I agree, that as I get older I want to keep things simple. If it takes too much effort to go sailing, the boat just becomes a place for spiders to spin their webs. And, I am an avid kayaker. While the Windrider looks something like a kayak with training wheels, do not dream of using it as a kayak. The Hobie is a true kayak and can be used as such without the amas, and can be powered by upper body, lower body or both. For me it will serve as sailboat, kayak and bicycle. Winds are always light here, so it is good to know that it does well in those conditions. Unfortunately if it is as wet as described, I will probably not spend much time on the Pacific, except when the water gets to be around 70 degrees and in light air and seas.

Putting a boat that heavy on the roof of a car is out of the question for someone like me (lazy), so I would appreciate any advice anyone has to offer on the best trailer options. I am of course very close to the Baja, so any advice on where to stay, where to sail and where to keep the boat while there would also be appreciated.

### Huguenin Frederic

June 1, 2010

If you want smaller and simple let's have a look at the Triak 10 from Rotomer

### Small Tri Guy

June 1, 2010

Hey, great tip Huguenin! I found a video of the Triak 10 at the Rotomer website ... <http://www.rotomer-kayak.com/video.html> ... and the direct YouTube link can be found at [http://www.youtube.com/watch?v=5ZLU4u\\_PKDA&feature=player\\_embedded](http://www.youtube.com/watch?v=5ZLU4u_PKDA&feature=player_embedded)

### John Stoller

November 21, 2010

I have a Windrider 17 ordered for use at Marina Del Rey. I wonder if the Hobi 17' cat would be better.

### Dickytom

November 22, 2010

Just read a review of the WETA in Sailing Magazine. Looks like a lot of fun and very easy to rig quickly.

### John Stoller

January 20, 2011

Allen, please contact me regarding sailing with you at MDR. I had ordered the Windrider but found the winds to be too light to enjoy sailing.

### Jeff Prideaux

January 24, 2011

Actually, information about the triak 10 can be found at the following website.

<http://triakports.com>

It's a single person craft, though.

### Danny

May 11, 2011

"I have a Windrider 17 ordered for use at Marina Del Rey. I wonder if the Hobi 17' cat would be better." The Hobie does not compare to the WR17 — either their tandem tri or the 17' cat! Everyone has their opinion of course. However the Windrider is not overly big but with the more flotation and safety it provides not to mention flat out faster than the H. tandem, with hoards more storage and the ability to sail very easily, paddle or have a motor. You can sleep on it for crying out loud. This is by far the best of all worlds, the WR17 that is!

### Ken Borgers

June 14, 2011

Allen,

MANY thanks for the thoughtful comparisons of the WR 16, 17, and Hobie AI. I have been considering the WR 16 and the Hobie, and you've got me leaning toward the AI. I was wondering if you'd tried the Tandem Island and if so, what thoughts you might have about it compared to the AI. I'm an older guy with some hip issues, still pretty active and used to getting wet (longtime windsurfer). But what you said about the desire for simplicity as you get older really resonated with me. Just saw today in the Hobie forums a guy has invented a cart that makes the TI easily manageable from the trailer to the water and back (here's the link:

<http://www.hobiecat.com/forums/viewtopic.php?f=73&t=35157>) Also, apparently Hobie is working on something quite similar. Now I'm thinking I might be able to handle the TI alone. Still the ease of the AI is definitely appealing. Anyway, thanks again.

### Kirby

June 28, 2011

For those wanting to truly sail for the fun of just sailing (not fishing), I would recommend the lighter and faster Warren light craft. In anything under 15 knots of wind, she will outpace AI by nearly a factor of 2. The entire boat, amas and sail, weigh less than the hull of the Adventure Island alone. The Warren sails better and has true glide-something I missed on my AI because of the mirage drive and all the drain holes underneath. The Warren sets up in about the same time and can be carted anywhere like a kayak. The Hobie will outperform in winds and chop over 15 knots however due to her weight and configuration. The Warren excels best in light winds- faster than just about anything on the water.

**Kirby**

June 28, 2011

Sorry, here's some footage of the Warren sailing kayak. I believe they sell for \$6k totally rigged which is almost double the price of a hobie AI. The expense comes from having a total carbon hull and amas which gets the total weight down to 65lbs. I would say the AI is still more versatile for fishing and for choppiier windier conditions, however, I found I usually sail more often in the Warren because of her fun speed in light airs and ease of car-topping. I could barely lift the AI on the roof.

<http://www.youtube.com/watch?v=jTYSleXDAgI>

**Bruce Matlack**

February 24, 2012

The windrider 16 is back in production by new owners, and has a new battenless sail on an extremely light weight carbon fiber mast. These improvements alone allow it to point higher than a Windrider 17 as I witnessed first hand at the Windrider Owners Weekend in October of 2011 in Sarasota, Fl.. I could not believe my eyes! For those 16 owners who claim it is too wet- Have you ever heard of a windshield? With a proper, lexan, clear windshield, your wet experience suddenly reverses to becoming quite dry, and there is a gusher bilge pump if you get into big stuff. The windshield easily attaches around the kayak type bevel with shock cord which also accepts a spray skirt. No such option is available for the Hobie AI which is totally wet in any chop-always. After all, the AI is a sit on top kayak with added Amas. It is a great all round kayak peddle vessel for sure, but let us not get it confused with a sailboat, which is what Windrider 16s and 17s are. Jack in his comments above is exactly correct: The AI is a kayak with training wheels. One must decide whether they want a boat or a kayak. As Allen noted, I seriously cruise and surf a Windrider 17 on the west coast of Florida. Look at my video on You Tube . If one wants something cute and novel that sets up quickly to be used in flat water and soft breezes, get an AI. If you want a serious multi hull sailboat, get a Windrider. The AI is a means to the end as i view it: It will make sailors out of a few kayakers who may want to step up into a real sailboat, whether mono or multi. As long as they get hooked on sailing, what does it matter-right?

Some comments on my dear friend Allen: Allen would opt for a set of very used, leaking, snow ski goggles before investing in a new windshield for his 16, there by affirming how frightfully wet the boat is! Nonsense! Like he says, the latest small vessel is always the best for Allen, and the closer to the water the better the feeling....BUT- he still has his Windrider 17! Oh yes, and I like his speed comparison of the AI with the 17— "In light air, and with the jib furled on a 17, the AI is equivalent in speed." What?@#!??? Allen just confided to me that he also races others on his trike, but has a hidden electric motor in the hub! This is a guy to watch for sure! You should hear his story of how he once beat me on Windsurfer!

**Simon**

June 21, 2012

Bruce,

I have recently acquired a Windrider 16. It's a 2002 boat with the old sail shape. I have had great problems tacking her (combination of inexperience and boat design). I want to make it work and am therefore considering changing the sails etc. What I want to know is the best way forward for the money: 1) Get a mast extension & the new 24' sail, or 2) buy the carbon fibre mast and new sail. Have you sailed the old WR16 and have a comparison with the new WR16 you sailed at WOW in Oct 2011? I don't want the carbon mast just for easy stepping but only if it makes a significant performance improvement. Any thoughts?

**Bruce Matlack**

June 22, 2012

Matlack says:

Simon needs to learn how to tack a small boat, not look for new sail/mast power to solve his problem... OK.. lets go thru a tack together. I'll be saving you a lot of money, so if we ever meet , you owe me a bottle of nice red wine above \$20!- Fair enough?

When you think about tacking when on a tack, you must have the sail in tight, but not over tight. Then you bear away about 5 degrees for max speed for the wind and waves conditions. Then you press the peddle just slightly at first heading you up into the tack. As the boat naturally slows going towards head to wind crank the rudder all the way now, to the stop, to complete the tack. As she goes thru head to wind, it is imperative that you release the main sheet to allow her to bear away onto the new tack. Once she is moving well and has fallen off, then bring the main back in tight to accelerate on your new tack. This is often only a few seconds of time, but it is critical or else you put her in irons, which I gather is your problem... So, in other words, you are making two critical mistakes that are easily correctable: 1- cranking the rudder to max right away to tack, thus stoping your boat's momentum to tack, and 2- not releasing the main sheet to allow her to get off on the right foot on your new tack, and putting her into irons. If you think a 16 is tough, try a Sunfish!. The 16 is a fantastic boat that is a little shy in bouyancy from mold shrikgage in design of the amas, but what a boat! It will out perform a Hobie AI all day long.. I'm not sure what the carbon mast and new battenless main are all about, but they are faster than the old.. that's all I know after watching a beginner go by me on the race course pointing higher and going faster on the same wind, and I was in my 17. I'd own one, but I don't have a twin to sail it! So try limiting rudder movement as you tack.. I increase rudder movement in direct relationship to the boat's slowing in the turn. the slower the boat goes, the more rudder angle I give her. Hope this helps you out. The 16 tacks easy actually.. all boats get wierd in big waves, and tend to like to go into irons more... On the 16 and 17, don't panic! as soon as you recognize that your tack is screwed, then bring the rudder to neutral at once, gain some momentum going backwards (astern), then kick the rudder the oposite way since you are going the wrong way! Make sense? You get a Stearman biplane out of a spin the same way, in case you are a pilot. Come to the WOW in Sarasota!

**Simon**

June 22, 2012

Bruce,

Thanks very much for the detailed description. It's the best I have read for how to tack the WR. I thought it was more me than the WR that was at fault! I'm looking forward to putting it into practise. Then I will surely owe you a bottle of nice red wine!

**Brian T**

October 3, 2012

"I have a Windrider 17 ordered for use at Marina Del Rey. I wonder if the Hobi 17? cat would be better."

I currently own a Hobie 17 cat and could not give them a higher recommendation! In terms of true single handed performance sailing (which is what we are looking for here) I'm not sure there's anything better :) true performance, affordable, and all of about 300lbs! If you are going to need a trailer anyways, get the cat!

PS. I also own a Hobie AI, although I cartop that, and really use that more for fishing and exploring than performance sailing. (video showing AI cartop method below)

[http://www.youtube.com/watch?v=NulaHNMfznk&list=UU\\_jWcPkB4hK3RTY0RHd9ajg&index=1&feature=plcp](http://www.youtube.com/watch?v=NulaHNMfznk&list=UU_jWcPkB4hK3RTY0RHd9ajg&index=1&feature=plcp)

#### Tom Rough

December 19, 2012

After messing about trying to adapt sails to my kayak, I broke down and bought a Hobie Adventure Tandem last summer. Will the rigging ice up if I bring it out on big water in winter? The rundown on the Windrider 17 was excellent! Thanks

#### Bruce Matlack

December 19, 2012

I have not been on here lately. I see a number of new comments (none from Allen fortunately!.. Maybe i can sneak this one by him as he snoozes!) So here are a couple of quick comments:

Comparison of the Hobie 17 and any of the Windriders is sort of stupid. The beach cat design is always going to be prone to sudden capsize because it's ultimate stability is from movable ballast, whereas the trimarans get their stability from built in design feature-never dependent on crew (ballast) movement. One vessel you could sneak off shore on, the other you take your life in your hands. Try self righting a H-17 in nasty conditions. I have two close friends who attempt to cruise beach cats- one a Hobie 16 and the other a Prindle 16 or 17. Both have had harrowing, life threatening experiences after capsize. Reality at sea is a different movie script folks!

I was an observer at the finish of last year's Everglades challenge in Key Largo. It was I believe, the nastiest conditions ever experienced on this (non)event. Although it is a non,un-sponsored everglades challenge event, a few things I observed as arrivals streamed in: Most if not all AI's had breakdowns due to design flaws(pins failing, pins lost, mast breakages, etc. that you won't read about elsewhere. There was a local rumor running that AI's should not be encouraged to join in on this challenge in future years, due to inferior skill levels combined with inappropriate design failings. Unofficially, I think Hobie uses this nonevent to promote product and also test product-looking the other way of course with fingers crossed. It just so happens that the products they sell are easily adaptable to the (non) required course here, with the unusually efficient and well conceived peddle drive system, combined with shallow draft and light weight to trek through the mud and shallows by hook or by crook of skipper and crew inventiveness. You never see Windrider products here as they all have keels which draw 16-18 inches of water and are just heavy enough to prevent crew from dragging any distance. If it were not for the shallows, Windriders being real, honest boats, would kick butt. I have sailed much of this "course" solo on a W-17 myself in order to get to Key West from the Tampa area (avoiding the mud!). So, the AI could be considered in some law case history as an "attractive nuisance" for one to foolishly set off that time of year in one in such non-event. There are more lucid ways to risk one's life. Oh, some explaining here: The Windsurfer, land teaching simulator, in the early days. that went round and round and sometimes pitched the user off was considered by lawyers to be, "an attractive nuisance" if left unattended. Some knucklehead could jump on it for fun and hurt themselves, and thus the owner could be held liable for their injuries. So folks, if you are considering such voyaging, give due consideration to voyaging in a boat or simply a "nuisance"! BTW, I believe the only call for USCG assistance in the non event last year was from a beach cat entry who had been dismasted. An admission here: I am proud to be a good friend of Windrider designer Jim Brown and sometimes, even Allen Parducci! Also, I was once the National Sales Manager (1974) for Sol Catamarans, Inc. when beach cats of all kinds were the craze. Everyone reading here should check out Jim Brown's <http://www.OutRigMedia.com> series of interviews on the net-mostly a multi hull thing.

#### Hugh

May 10, 2017

Suggest these comments be updated to include a comparison of the redesigned and much improved 2015 (or later) Hobie Adventure Island or Tandem Island.

#### Tony

April 16, 2018

Any and all that may be interested. I sail a 12' Bazooka Trimaran, it's a tramp dweller that you can hang your legs into the main hull and be very comfortable for hours on end. Stability is both by way of the outriggers, which are relatively small volume and also some crew ballast.

When in production the boat came with a main only of around 7m<sup>2</sup>, I have since fitted a small jib which greatly improves tacking.

You can easily paddle this little boat when sitting on the front ama. You can also easily fit a small 2.5 hp 2 stroke to the rear ama.

Comfort wise it is a bit wet in rougher conditions but being able to move around the boat easily makes it generally very comfortable even with 3 mid size adults aboard.

Performance wise it is most fun when sailed single handed with little added load, have raced and easily beaten 12 and 14' catamarans to their (and my) great surprise. My total sail area is around 10 to 11 m<sup>2</sup> with the jib. Single rudder about the same size as a beach cat rudder with auto kickup in shallows. No centreboard but has side flutes / chines that bite into the water and reduce leeway significantly. Points reasonably well with main only but can be stubborn to tac, with jib it points higher and tac's easily.

Can carry good camping supplies for 2 people as well as snorkelling gear etc.

Closed waters it is faster for obvious reasons than open water. Fibreglass construction it has built in air chambers in hull as well as foam filled to be virtually unsinkable.

Open waters it is a mini freight train, remember it is only 12' long but I have been out in 40 knot plus winds with rising swell to 6' and whitecaps on multiple occasions and whilst thrilling and nerve racking at times being 4km from shore have never felt like she was straining beyond her limits.

Transport is easy as she weighs in at around 55kg with everything packed into the main hull, yes ama's, aka's, 2 piece unstayed foam filled carbon mast, sails and rudder all pack up inside her and are clamped in with the ama retaining boards. I simply walk up underneath her from the bow and put the nose on the rear roof rack roller, lift

the rear about 6' and push forward on the roller. Once past the COG she just sits up their waiting for a little shove forward and strapping down.

Setup and pack is relatively easy, for a quick sail by myself I can be out on the water in about 20mins, 30 if others are tagging along with gear.

I believe that these Bazooka is going back into production (again) but is a slightly modified design to my original in that they are making it more of a racing machine to compete against the likes of Wetta, seriously that horse has bolted and not everyone wants a speed machine like the wetta, I would happily sacrifice some speed for greater versatility and functionality.

So if you are keen on a small tri that can be an adventure machine and still give a good lot of speed solo then see if you can locate a Bazooka or keep an eye peeled for their relaunch ^3.

**Chopstix**

February 13, 2023

Hi, I have been looking for a small trimaran for a big adventure. I would like to attempt the Great American loop on a windrider 17 if I can find one cheap. I have a good idea of what I'm getting into, I sailed small boats in college and recently crewed an Irwin 32 for a month. I have kayaked the entire Mississippi river in a 10ft kayak. I have thru-hiked the Appalachian trail +another 10,000 miles. I am not looking for a pleasure Cruise but a fairly hardcore adventure. I have 1 willing and able crew and several others that would join for sections. My problem, I am part blind and do not drive so I can't transport the boat on land. (My eyes will serve me fine on the water this has been worked out and tested beyond doubt for the purposes of this post) so I need to buy a boat that is on my route and then basically immediately start. I am having a hell of a time finding a windrider 17. I am afraid I might have to settle for a hobie cat 16 because they are available all over the place for cheap. Any ideas for other boats I should consider or if you have a line on a windrider 17 or just want to chat on the topic feel free to reach out,

[jlucken007@hotmail.com](mailto:jlucken007@hotmail.com)

# Small Trimaran Charter on the Chesapeake

April 28, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Chesapeake Sailing Tours, Dragonfly 800, Dragonfly 800 trimaran, Dragonfly trimaran, Quorning Dragonfly, Quorning Dragonfly 800

No Comments

# Seaclipper 20 Trimaran Construction Photos

May 8, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Jim Brown, Jim Brown Seaclipper, Jim Brown seaclipper 20, Jim Brown Seaclipper 20 trimaran, Jim Brown trimaran, Seaclipper 20, Seaclipper 20 trimaran

## Comments

**Charlie**

May 12, 2010

I want one. How much would it cost to build. I am looking for a ride for the everglades challenge as well as a camp boat for my weekend island trips around Tampa bay.

# Strike 14 and Strike 16 Trimarans Coming from Multihull Designer Richard Woods

May 10, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, small trimaran, Strike 14, Strike 14 Trimaran, Strike 16, Strike 16 Trimaran, Strike 18, Strike 18 trimaran, Woods catamarans, Woods Designs

## Comments

**Tony**

January 15, 2023

I am in the UK and on the lookout for a Strike 16

## Jim Brown's "Case for the Cruising Trimaran" Now Re-Published

May 12, 2010

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Case for Cruising Trimaran, Case for the Cruising Trimaran, Jim Brown trimaran, Jim Brown trimaran book, trimaran book

No Comments



## Jim Brown Audio Interview – “The Case for the Cruising Trimaran”

May 14, 2010

Categories: Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: Jim Brown, Jim Brown Audio, Jim Brown Case for the Cruising Trimaran, Jim Brown Interview, Jim Brown trimaran, Jim Brown trimaran audio, Jim Brown Trimaran Interview, outrig.org

No Comments

# The Versatile Sea Pearl Trimaran

May 21, 2010

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: Marine Concepts, Sea Pearl sailboat, Sea Pearl Sport Tri, Sea Pearl Tri, Sea Pearl trimaran

## Comments

**Lance**

May 27, 2012

I am looking to buy a used Sea Pearl trimaran.

Please respond to [jetlans@yahoo.com](mailto:jetlans@yahoo.com) with any information.

thank you,

Lance

**Scott Bailey**

August 13, 2019

I recently acquired an old Sea Pearl Trimaran. I have discovered that one amas is difficult to deploy, I think because the heavy rings of tape are deteriorating. I am guessing that they function to keep the telescoping tubes aligned and smoothly moving. My question: where can I get this particular tape? Who makes it? Am I right about the function of the tapes?

**Small Tri Guy**

August 13, 2019

Great question Scott. This would be a great time to contact Marine Concepts (the boat's developers) and get your questions answered directly.

Their new contact info, according to their website, is:

727 \* 641 \* 7439 - <http://www.marine-concepts.com/sea-pearl-21.html>

# The Wavelength 780 Trimaran – Breaking New Ground with Plywood Construction

May 27, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Bob Forster, Farrier trailertri, Wavelength 780, Wavelength 780 trimaran

## Comments

**Ken Chambers**

March 4, 2014

This is the 3rd time I'm contacting you. I am interested in acquiring your study plans. If I don't hear from you in two days I'm moving on to other boats.

**Small Tri Guy**

March 4, 2014

Hi Ken,

You should be able to reach Bob (the designer of this boat) via his website at <http://wavelengthmultihulls.com/>

He has a "Contact Us" page there.

I hope you are able to reach him.

# New Seaclipper 20 Pictures & Jim Brown AUDIO

May 27, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: Jim Brown, Jim Brown trimaran, Seaclipper 20, Seaclipper 20 trimaran, seaclipper 20 trimaran photos, seaclipper 20 trimaran pictures

## Comments

**Daniel Caselli**

July 12, 2016

Hello friends,

where I can buy the plans of this Seaclipper 20?

Thanks a lot,

Daniel Caselli

**Small Tri Guy**

July 12, 2016

Hi Daniel,

To buy plans for the Seaclipper 20, contact John at marplesmarine[AT]gmail[DOT]com or call him Monday through Friday from 9 a.m. to 5 p.m. (Eastern Time Zone) at 207-326-8096.

## Seven short video clips of the Strike 18 Trimaran

June 3, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Richard Woods, Richard Woods trimaran, Strike 18, Strike 18 tri, Strike 18 trimaran

No Comments

# A Wavelength 780 Trimaran Cruise Down Under

June 4, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: trimaran cruise, Wavelength 780, Wavelength 780 trimaran

## Comments

**Stefano**

October 30, 2010

General dimensions of this tri. Can you please state them and also width on trailer? Thanks, Stefano

# Seaclipper 20 Trimaran Sea Trial Video

June 7, 2010

Categories: Self-built Small Trimarans, Small Trimaran Videos

Tags: Jim Brown Seaclipper, Jim Brown trimaran, Seaclipper 20, Seaclipper 20 trimaran

No Comments

# Vintage Searunner 25 Trimaran, Piver 25 Trimaran (& Searunner 31 Trimaran)

June 9, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Piver 25, Piver 25 trimaran, Searunner 25, Searunner 25 trimaran, Searunner 31, Searunner 31 trimaran

## Comments

**Greg Walter**

June 14, 2010

Thanks for sharing Fred. One of my fav sailing pics is the cutter rigged SR 25 on the back cover of 'Searunner Construction'. Looks effortless sailing.

Best wishes,

greg (building a 25' ply tri with one cabin :-)

**Fred Goldfarb**

July 3, 2010

Hi Greg!

Cutter rigs look great when both foresails are set, though it means more sheets to handle when tacking. The rig is easy to set on a Searunner, though you do need to watch your mainsail when the running back stays are set. I can tell you that both my Searunners handled very well, just make sure you have enough centerboard down and understand that if you fall off without easing your mainsail at the very least you may not fall off much if at all. My 25 wouldn't fall off if the mainsail weren't let out. If you let the mains'l out while starting to fall off, the boat could almost do a 90 degree turn. It didn't really of course, but it turned so fast you might be surprised at the speed.

If you're thinking of building or buying one, buying get's you sailing much faster. I'd advise to have a professional survey done on any you might considering buying however, as there are many ways problems can creep into a 10 year or older boat made of glass over ply construction. Check for screws that may penetrate the decks too. We had deck rot due to a self tapping screw a previous owner of our 31'er had used to mount the overhead light in the dressing area forward. The damage required half the fore cabin top to be replaced.

Hope all your sailing is fun, fast, and safe!

Fred

**John Hulburd**

October 15, 2010

Hello Fred-

It's good to see your story and pictures. I had a Searunner (hull #301), built in Los Altos CA in 1979. I sailed it a lot in Mexico until I trailered it up to Port Townsend, WA in 1989, where I stripped the whole boat and glassed it (the Guegeon Brothers told everyone in the late 1970's to not bother with fiberglass if they used WEST brand epoxy). Then I sailed it a lot up here. I slightly modified the cockpit to hold my 6'3" frame (horizontally) when we converted it to a double bed for the night. I loved sleeping out that way (still can't find a trimaran under 30' with a double bed). Mine was cutter rigged, which had two problems: lots of lines in the cockpit (we called it the spaghetti syndrome) and that darn "compression post" right in the middle of the forward companionway. But in a big blow she's sail sweetly under the staysail and reefed main. When I sold her in 1996, I took the new owner out in a 45 knot gale, and he was shocked at how well she sailed. We even had tea! I've moved on to bigger boats (have a 40' catamaran now) but I often miss that 25 Searunner. She was so fun to sail, inexpensive, nice looking, easy to pull out of the water and trailer (I pulled mine up from Mexico behind an F100 with a 304 V8). The only two real limitations were water and motor. I always wanted to equip it with a small water maker. And I hated the way the outboard would cavitate in any waves (up here I still mostly sailed but there are times when there really is no wind).

Why did you get rid of your 31? That seemed like one of the best all around designs to me. Too bad so many have gone by the wayside now (as Jim Brown told me "We never expected those things to last so long!"). What do you sail now?

Thanks again and happy sailing!

**tony**

November 25, 2010

I am living in venezuela, I am a vet that wants to sail home. I have sailed tris, had a piver mach 1 30 ft and traveled thru the bahamas with just a 5 hp seagull, My plan is to sail home but I will proable have to make the boat have been looking at hydrofoils, can they handle the caribbean with a single hand on board, I woild love the flightttt or would it be better to make a 25 footer tri. from caracas to jamaica to caymans around cuba to miami the sea in march is almost all at my stern what do you think thanks tony

**Fred Goldfarb**

December 7, 2010

Hi John & Tony,

Just saw your respective posts.

John:

Sounds like you had more fun with your 25 than I did with mine! Mine had no compression post for the mast. Instead, there was a small cuddy, an extension aft from the forward cabin top over the forward cockpit, maybe 2' or so long. The mast was stepped right where the main bulkhead at the forward end of the cockpit was (the cuddy



part extended aft of this bulkhead). I added two supports at the aft end of the cuddytop, from the cuddy top to the edge of the cockpit seats. Without them the cuddy top would flex a little. The forward cabin was okay for 1 to sleep in, though getting in to use the porta potti was a bit of nuisance of course.

As for Moonraker, our old 31'er. We had a new motor installed a few years after the old one conked out. The deck repair was done by a professional, due to lack of time on my part (full time job, etc.). We were saving to buy a house and decided to part with the boat a year or two after the deck repair. We donated it to an organization doing anthropological marine research. Last we heard it was maybe around Belize. The only concern with having a wooden boat (even one sheathed in fiberglass), is that maintenance can really become a major part of owning such a boat. Moonraker was built in the 1970's on Long Island, and as I noted in my article, not every owner (we were the 4th we think to own Moonraker) took good care of her (that self tapping sheet metal screw for example). Had I the time, I'd have wanted to redo some things anyway, as I did for my 25', for example, designing & building a new mast when the old one broke at the spreaders one day while sailing near City Island, NY.

Tony:

In college I did a simple hydrofoil design for a 25' center cockpit trimaran (the Brown 25 Searunner in fact). The design was meant to act as a stabilizing foil more than lifting the main hull off the water, and to add lift to both the ama as well as help prevent leeway, due to the shape of the foils. I've wanted to see some cruising examples of foilers for many years, but alas, there have been very, very few around. I think they are not as practical for most multihullers as conventional designs, and maybe they "scare" people off. The oddness (compared to conventional tris) plus possible higher costs may also be factors preventing commercial builders of foilers. On the other hand, if you're building a tri, you might consider building your own foils. The Amateur Yacht Research Society had/has some material on it, plus there's online web pages on hydrofoils that will have some design information. I think there may be one or more commercially available books on sailing hydrofoils & their design too.

As for handling the Caribbean...

The 31' Williwaw went trans-Pacific years ago, and other large foilers have gone transocean. I think the main concern will be a general one - is the boat & crew able to cross oceans intelligently & safely. The Searunner 25 has gone from California to Hawaii. I don't recall, but it wouldn't surprise me if other 25'er have gone across oceans, etc. and their skippers just haven't publicized it much, if at all. I'd think the Searunner 25 would be a perfect small tri to cruise the Caribbean, go to Bermuda in, etc., as long as you are a sailor who can do such trips safely. Pick your season/weather to make it a better trip (no hurricanes, please).

I think your route seems reasonable, not having reviewed weather & current data for the areas you'll be in, but see if you can visit Cuba too, since it's big, along your route, is not unfriendly to yachts visiting (you may have to look into US regulations and if desired figure out how to do it but not annoy US officialdom, probably easy to do today).

I'd try a self built self steering rig to, since it's: 1) much cheaper than buying a commercial one; 2) lighter in weight (important when hanging on the stern of a 25' tri); 3) easier for you to change/fix since you'll have built it, should it need revising for better operation (remember, a tri can accelerate quickly, making a windvane steerer possibly mess up). I'd also have a solar recharged, battery operated tiller self steering set up for other times, maybe running dead downwind or very broad reaching. If one breaks, you'll have the other. Either way you'll get more needed rest on a small boat that will move around lots more than a larger one.

Fred

**John Blewett**

January 21, 2011

Fred,

I remember the 25. You had just purchased it when I was working for Dick Janda and were members of TSCA.

Talk about finding a skeleton out of the closet. It sounds like you have fulfilled your sailing dreams. I remember one night we got kicked out a restaurant in the village because we had spent so much time there looking at boat plans.

Nice to see an old friend,

John B.

**Stefan Galazzi**

March 7, 2011

Hello Everyone,

In the early 1970's I built, possibly the first on the East Coast, a Brown 31. Sailed her with my family, four of us, down the coast and back. We landed on Cape Cod in 1974 where we now live.

Later, in about 1998, I purchased a 37 in Ontario and eventually brought her off shore to St. Augustine, FL. I sailed her around the Keys and numerous islands of The Bahamas until 2003. Due to financial issues I was forced to sell her. Both Searunners, for numerous reasons, have been by far the most wonderful sailors imaginable. If anyone would like information regarding these Brown designs, please contact me.

On another note...I am, at 72, searching diligently for a Brown 31 or...34. I'm looking forward to another coast wise sail here on the Atlantic side. If you have or know of anyone who has a Searunner for sale or anyone who might be interested in selling, please contact me. It will be most appreciated.

Thanks...Stef

**Stefan Galazzi**

March 7, 2011

A warm and joyous 'fair winds' to all you Searunner sailors and enthusiasts. I'm looking forward to hearing from you re: information and leads to a 31 for sale.

Again, many thanks...Stefs

**Mike Mitchell**

March 27, 2011

Gosh, it's so good, and memory inspiring, to hear all these Searunner 25 tales! I bought my 25 plans from Jim when he lived just up the road from Santa Cruz in 1970, I think. Began building at an old abandoned oil pumping station/mushroom farm not 3 miles from his place which was up a creek and thru the woods. One of his sons, around 12 or so at the time, had just gotten back from winning a model sailing meet w/a searunner 25 modell! I later saw him, all grown up, in Port Salerno, FL building his proa. Like father, like son! My 25 was awesome. on a cruise down from Santa Cruz to Baja, I encountered Santa Ana winds said later to be blowing @ 90mph off Morro Bay and had to turn and run offwind and offshore during the night. I couldn't point high enough in that weather to get past Morro rock; and just as well, considering how tight the entrance is there. I never had nor needed a motor. Wonderful boat. I now have an old 33' Irwin and STILL wish I had my Searunner. Y'all have a good one; glad I found this site.

**Fred Goldfarb**

September 17, 2011

Hi John, Stefan, & Mike!

Just saw all of your posts and finally got around to a reply.

John: WOW! I remember Dick Janda very well. He told me once built a Piver 25, had trouble with the stern, asked Piver himself about it, and was told "Just put it together". He didn't think Piver was a great engineer so much as a relatively "ok" designer, but was a fantastic media person. Not surprising considering Piver's background. PS: I'm on LinkedIn. If you find me, contact me (my profile say's something about having worked at SNAME a few years back). Or ask Joe (the SmallTrimaranGuy himself) for my email - tell him it's okay. I'm on Long Island these days.

Stefan: Since 2008 I've seen a few 31's listed for sale, including Jim Brown's own Scrimshaw (which I've seen sailing up in Maine near the Woodenboat School on Eggmoggin Reach). One was larger (okay, not a 31), which was a 34 made of fiberglass, not wood/ply sheathed in 'glass. One 31 was up at the Toronto Multihull Cruising Club (which had a few Searunners of various sizes). I'd be surprised if you couldn't find one. Go to Jim Brown's Outrig.org website for history, stories (including one I wrote about sailing up the East River at night without a motor in my old 31' Moonraker). You might also contact Jim or John Marples regarding 31's & 34's for sale. Personally, if I were in such a market right now I'd try & find a 34 made of glass, or better yet, foam core glass. Otherwise maybe a 'glass 31. I love wood, but the upkeep keeps many sailors owning wooden boats of any kind on shore more than they want. You can always fix up a 'glass boat, rebuild stuff, add stuff, make a new mast, etc., but the idea, especially at 72 would be to sail more, maintain less. There are too few days and way too much sailing yet to be done!

Mike: One of the very few times I needed a motor was going up the Connecticut river into Hamburg cove with my 25. That and the next day crossing the river to Essex, which was in a wind coming down the river so strong we were being blown downwind and worked hard to reach the dock. Under sail it might have worked okay, but space was tight, with no room for error, and frankly I didn't want to crash into the dock a breakneck speed, which the 25 could certainly do any time a gust hit!. Up in Maine I've see Searunners a few times, a CC Marples 34 or 37'er, and even what I think was a Brown Proa, maybe 28' or so long, screaming out of Rockland or Camden Harbor heading across to Vinylhaven so fast it was heading back by the time the schooner I was on was just approaching the entrance to Merchants Row!

Gotta say that while my wife want me to think about a monohull right now, I could easily get hypnotized by a solid wing 31 or better yet 34 again, especially in glass, or foam core glass. I loved that old 25'er but man, I'm married a long time like a decent double berth for all sorts of reasons! PS: I'm now 63 and still feel like I did when I had that 25, at least when it comes to multihulls!

Fred

**marvin**

October 7, 2011

i am looking for a sailboat big enough to live on and long distance cruise on , on a small buget. like to have some input. marvin

**Andre**

March 5, 2012

Hi,

First of all I would like to say a big hello from Europe.

I found a Searunner 25 for sale.

Can I reasonable think that I can sleep on board with my wife and my 2 kids 7 and 5 years old ?

Thanks

Regards

**Small Tri Guy**

March 6, 2012

Hi Andre,

I don't see why you couldn't sleep on a SeaRunner 25 trimaran with your wife and 2 children.

**Andre**

March 6, 2012

Hi,

The man who sales the boat says they are 2 one beds so not two double beds.

One at the front and one at the back.

**Andre**

March 6, 2012

How can 4 people sleep in the boat please ?

Thanks

Regards

**Andre**

March 6, 2012

I mean berth not bed sorry for my english

The boat was build 1982.

They are some bubels on one hull.

Seller says it is osmosis.

Hard to repair ?

Price is euro 4000 with 10 HP engine and euros 2000 without engine.

I have a 4 HP engine so might buy it without engine.

I like that experimental and aerospace design :)

Thanks

Regards

Jerome

**Andre**

March 10, 2012

Hello Everybody,

Would be great if somebody could tell me if a 4 people family can sleep in a Searunner 25 ? 2 adults and 2 childrens (7 and 5 years) ?

Thanks

Regards

Jérôme

**Slowbat**

June 1, 2012

Hello Andre

I have a Searunner 25 and would say they could fit if the weather was nice and you used the cockpit as a berth. I had a 31 A-frame a few years ago and this is a much better boat for that size family. if you have 4 people there is not room for stuff on a 25, like food, drinks, books, toys, clothes, The 31 at only 6' longer the inside is twice as big as the 25. I will move back up to a 31 when it is time to head down the coast.

Good luck!

Dan in Seattle WA USA

**Andre**

June 6, 2012

Hi Dan

Thank you for your feedback. I might go for a more conventional boat. I found one sailboat for \$ 2000 with 5 berth.8 meters a little work on it but ok.Also cheaper mooring than a multihull.

Thanks

Regards

Jerome

**Fred Goldfarb**

December 1, 2012

Not sure if you'll be seeing this now Andre, but a monohull to carry your family comfortably will be easier to find for probably less money than a good multihull. If you do prefer a multihull you'll need to look at trimarans in the 31' +/- size or larger, or catamarans from around 26' (like the British Heavenly Twins cruising design) or larger, though they will be more expensive. My only concern with a Searunner 31 (or 34 perhaps) is that for living aboard the center cockpit really does cut up the accommodation, though it gives you greater privacy for anyone sleeping forward from those aft. Designs from other designers like Cross or Horstman might work well in similar sizes, and there are boats (tris and cats) from some Australian designers that are good cruisers, like a modified 36'er built by the owners who then were cruising the Pacific ocean for 3 years with three children (oldest was 13 when I met them), home schooling the kids aboard, and had plenty of room for their family. Any boat you'll be living aboard will be easier to care for since it'll be your home and you'll know when anything needs repair immediately. Hope this helps if you're still looking.

**Andre**

December 1, 2012

Hi Fred, Thank you very much for your advise. Funny because I bought in June a Hurley Felicity 20 for cheap money (better with the crisis) and no mooring costs because it is in a free channel in the Netherlands (hope this situation will last). 4 sleeps a little tight inside but ok, one double and 2 single. I put my 4 HP Mariner on it (Dropped it in the channel before) and we will try it the first time this summer. I need to build a mast support as I need to lay the mast to be able to pass the bridges on that channel.

Thanks for your advises and have a nice day.

**Helen Patchett**

March 13, 2014

Dear all present and past 25 Searunner owners. I am currently looking at buying a much loved but in need of some serious TLC Searunner 25. I'm wondering if anyone has pictures of their cabins so that I can get some inspiration for maintenance ideas. It is a sound boat externally but internally could do with more than a little lick of paint.

**Gerald Kufner**

March 12, 2016

i had a Searunner 25 on the Hudson River in the early 80s. Loved it. Once, I sailed it down the River to NYC, around Manhattan (motor) and all the way to Port Jefferson. This was my longest trip. I now own a Searunner 31 and love every inch of it. Yes there is rot here and there but always easy to fix.

Gerald

# Still Sailing a 1967 Piver 25 Trimaran

June 14, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Arthur Piver, Piver 25, Piver 25 trimaran, San Fransicso trimaran sailing

## Comments

### **Franz Miller**

October 23, 2011

Hi!

Saw this posting on your little Sea Bear Piver tri and have to find out if it's still for sale? Thanks!

### **Elmer A. Silfies**

December 3, 2011

I used to have a piver tri when I was 16 yrs old, I am 52 and still miss my tri, is she still for sale if so please let me know. Thank you

### **Tom Page**

July 24, 2021

Hey Charlie, just purchased Sea Bear. Call me anytime.

530-440-3893. Tom

Today's date:

Friday, July 23rd, 2021

### **Bill Willis**

January 29, 2023

I spent the winter of 1970 living on a Piver 25 (Pi25) on Big Pine key Florida. I found her to be an amazing sailboat. She was fast and very maneuverable, and handled like a sports car. Back then one of my favorite pastimes on very windy days was to sail her through the many undeveloped canals in the area. It was a real thrill to race along at 15 plus knots in the narrow canals.

After work one day just by chance, I sailed out to Looe key (that is actually a submerged reef) on the edge of the Gulf stream several miles off shore. Just beyond Looe I spotted a small disabled outboard boat drifting with several people onboard. I passed them a line and towed them back to Big Pine under sail power alone. I didn't have the auxiliary outboard motor onboard at the time but the Pi25 was up to the task and we made it back well before sunset.

Prior to my winter stay on the Pi25 I spent the previous 2 years in the north east living and cruising on a 34' long 6' draft 18000 pound cutter build in Novascotia.

# Seaclipper 24 Trimaran Micro-Cruiser Plans Ready-to-Go

June 16, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown Seaclipper, Jim Brown Seaclipper trimaran, Jim Brown trimaran, John Marples, John Marples trimaran, Seaclipper 24, Seaclipper 24 trimaran, Seaclipper trimaran

## Comments

**Greg Walter**

June 20, 2010

Hi Joe,

Any chance you could add pdfs of the SC24 cabin version drawings? The existing ones don't print out too well.

Turned the main hull of my bus a couple of weekends ago. I've started a thread on our local sailing board that I'll add photos to from time to time ...

<http://crew.org.nz/forum/viewtopic.php?f=37&t=14022>

I'm really enjoying your site. While I'm building a fairly 'racy' type boat I'm a complete multi design fanatic and love hearing about the other approaches people take to getting on the water on 2 or 3 hulls.

cheers

Greg

**Small Tri Guy**

June 20, 2010

Hi Greg,

I think the ones I've posted are the only ones being released for publicity purposes at this time. But John Marples might offer a few more to anyone who is really interested in this boat ... you never know :-)

# Thoughts on the Seaclipper 24 Trimaran "Daysailer"

June 18, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples trimaran, Paul Dawson, Predator Trimaran, Seaclipper 24, Seaclipper 24 trimaran

No Comments

# A Phil Bolger Trimaran?

June 25, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: buildboats.com, Phil Bolger, Phil Bolger trimaran, plywood trimaran

## Comments

### **Fred Goldfarb**

June 25, 2010

I have two books of Phil Bolgers, "Small Boats" and "The Folding Schooner". On page 91 of "The Folding Schooner" Bolger has a design for a long proa, around 39' long in fact. Neither book has a trimaran nor a catamaran for that matter, though he does have a Trireme if you need the number three to show in something!

The tri design looks like it would be best suited for protected waters since the bow probably wouldn't be best in any kind of large chop. Pick your weather however and you'd probably have a great time. That said, it could be a great daysailor/overnighter for responsible teens or a small family sailing on lakes and some rivers.

### **steff wright**

November 28, 2010

phi designed a trimaran called "Bantam" that is very unique and worth looking at. It might not be the fastest sailer but does have some other attributes that makes it worth the time to review. Information is hard to come by but can be found.

### **Guy Campbell**

February 24, 2011

Phil does cover a couple of tris in "Different Boats". A three meter sit in, and a camp cruiser. . .

### **Proaconstrictor**

September 10, 2014

Obvious to us is that the genius Bruce spotted is nothing more than the underpinnings of the Tremolino design, and nothing new in Phil's hands.

Bolder designed quite a few truly tragic multihulls. He did work with one fairly interesting detail, I don't know if it was unique or not. He made some of his hulls off an almost deep V speedboat section. 4 panels, a hard keel for grounding and some leeway prevention. One of the worst plausible shapes, the same surface area as a Wharram, but requiring a board. However, it does have a ton of interior space. The shape while like a speedboat, does not see the chines submerged, this means as with the Wharram, you have a clean flow, even though it is a simple plywood hull.

One feature of this hull shape is that it does not have a great displacement range, but then it doesn't probably need one in a small tri, as the usual drill there is you have to use all the displacement available, and be careful with the weight budget.



## More on the Crusoe Craft Trimaran

June 30, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Crusoe Craft, Crusoe Craft Trimaran, Crusoe trimaran

### Comments

**Angela Anderson**

June 3, 2014

They offer freediving courses? For how much? Now that piqued my interest. I'm an adrenaline junkie but I haven't tried free diving yet. I do scuba diving but free diving is in a whole different level. The surge of fear and excitement you'll get from free diving they say is off the charts and I want to have a taste of that.

# John Marples on the Seaclipper 24 Trimaran (Audio)

July 2, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: Brown Seaclipper, Jim Brown trimaran, John Marples, John Marples audio, John Marples interview, John Marples trimaran, Marples Seaclipper, Marples trimaran, Seaclipper 24, Seaclipper 24 trimaran

## Comments

**Stefano**

July 20, 2010

Hi. Just the view of the swinging akas makes me shiver with fear on the 20 ft version, I would not dare to go to sea with an even larger version. Not speaking of those light airs that push the boat along so easily, but of squalls you may encounter even on sunny mediterranean summers. not searching for trouble of course, but these swinging akas – flat open configuration as opposed to closed triangles in farrier designs, look like great candidates for structural failure.

I would be happy to learn more on them perhaps on a specific post.

cheers, Stefano

**John Marples**

July 27, 2010

Trussed akas, like stayed masts, are being replaced by cantilever beams that are designed using strict engineering principles. The swing arm configuration benefits from the flat beam, which requires heavier construction to achieve the same strength as a more vertical shape. All these beams (akas) have the same safety factors as the old style beams. Like the unstayed masts of today, these beams will show some deflection under load which will soften the ride and reduce stresses on the rest of the boat. I might add that I have a Mechanical Engineering degree and 30 years of experience in multihull design.

# Piver Nugget Trimaran Images & Videos (Plus Site Links)

July 7, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Piver Nugget, Piver Nugget Trimaran, Piver trimaran

## Comments

**Pedro Cabral**

July 12, 2010

Hi all! It was a joy to come to check out your site today only to find my boat on full display!

Thank you for the nice words about my boat which is still, almost 50 years after its launch, a pleasure to sail flying past latest generation monohulls of the same size and, if the wind is right, even much bigger vessels...

"Fulô" was given to me by a friend (its builder) which, due to health issues, was no longer able to keep it.

It was built in 6mm (1/4 in.) marine ply and epoxy and features a fully battened North Sails main and blade jib that still allow him to reach 12kt easily.

Again, thanks for displaying my pride and joy in your site...

BTW, the blue monohull in my pictures is my dad's self built Phillipe Harlé Gros-Plant 6.5 mini transat...

Pedro Cabral, from Portugal

**Pedro Cabral**

July 12, 2010

PS

Nugget's plans can still be purchased at very decent prices from the photography department at Mariner's Museum, at Newport News VA.

<http://www.marinersmuseum.org/>

photography @MarinersMuseum.org

Just thought I'd let you know...

Regards!

Pedro Cabral

**Small Tri Guy**

July 12, 2010

Hi Pedro,

Many thanks for letting me share these great photos of your boat with the world. Your boat is in great shape. And thanks for the added info about where plans can be obtained.

**Pedro Cabral**

July 12, 2010

Please let me know if you or any of the site's visitors have any questions about this great little multihull. I'd be happy to answer to those I can.

Best regards!

Pedro

**Pedro Cabral**

July 12, 2010

Furthermore I can't resist leaving you a link to a video of Fulô sailing FAST :)

So you guys can see for yourselves what these ancient wonders are still capable, give the right sailplan...

[http://www.youtube.com/watch?v=sjnqpoYVWYY&feature=player\\_embedded](http://www.youtube.com/watch?v=sjnqpoYVWYY&feature=player_embedded)

Enjoy!

Pedro

**John Richardson**

July 13, 2010

Just ordered the Nugget plans from the DN Goodchid site, lets see how good they are, have the contact sheets from the Mariner Museum . Will let everybody know.

**Pedro Cabral**

July 14, 2010

(Joe) You're welcome to do so (come visit me in Portugal)! If you ever drop by you'll be welcome in Alhandra ;)

**Small Tri Guy**

July 14, 2010

Hi John,

Yes, please post a comment here regarding your "Nugget Plans" purchase and any thoughts you may have after looking them over.

**Pedro Cabral**

July 16, 2010

I'd sure be interested in observing what could be done out of a set of Nugget plans using modern building techniques and materials... I believe the result would embarrass many modern "rockets"...

**Small Tri Guy**

July 17, 2010

Pedro, Gary Dierking, who you can find out more about at <http://homepages.paradise.net.nz/garyd/> was a big Nugget fan. He believed that after all the various factors were taken into account, it was hard to improve upon its design. So you raise an interesting thought, "What would happen if somebody constructed a Piver Nugget using modern, light materials?"

**Pedro Cabral**

July 18, 2010

Some aluminium crossbeams, a carbon or wooden wing-mast and boom and air cored composite decks are just a few things that have crossed my mind :)

**Greg Hardt**

October 9, 2010

I had nugget in the late 70's on sf bay. I got one in 1999 for \$50. lot's work's got in water sumer of 2000. I would like to hear from fellow enthusiasts of the older trimarans. My land line is 530 589 1973 Greg. p.s. have 28' tradewinds tri, built in 66' in El viso, CA

**Pedro Cabral**

October 9, 2010

Hey Greg

Nice to meet you!

Feel free to use my email to share some thoughts!

pedro.mf.cabralATgmailDOTcom

Cheers!

Pedro

**Brian**

July 18, 2011

Hi all tri enthusiasts, I see all the Piver Nuggets photos here are sloop rigged, I had a Piver-Nugget back in the 70's in what was Rhodesia, mine was ketch rigged, and we had great fun with her on lake McLwaine & Kariba. glad to see there are still a few about, they are a great boat.fair winds to all. B

**JOHN SPOERING**

July 22, 2011

Hi All Tri Enthusiasts,

I have the Piver "Nugget" plans from D.N. Goodchild (on his website under multihulls). For the cost of \$10 you get a folder containing the original set of plans - that's the version that Jim Brown built his from and sailed down the California coast to Mexico - and a booklet that gives the instructions for building. Remember, Piver was not very wordy with his instructions so you'll have to read it closely and use your imagination in some places, but it's all there. God Bless Mr Goodchild.

- John Spoering - OCALA, FLORIDA

**JOHN SPOERING**

August 12, 2011

Hi all Piver devotees, I have a question for you. On the Piver "Nugget" plans, he shows the cross arm hinges on the top ... yet all photos i've seen show the amas folding down. Any ideas?

John Sopering [j.acbar1@hotmail.com](mailto:j.acbar1@hotmail.com)

**Patrick McGrath**

September 4, 2011

I don't know about anyone else, but my Piver Nugget Tri, built as per the plans had the hinges on the top so that the floats could fold up over the top of the cabin. I trailed it like that and it worked alright for me.

**Sandy Tucker**

October 4, 2013

Our sympathies to Jim for having just sold scrimshaw after so many years. That's really getting your moneys worth out of a project though.

A really great series of boats designed by a really cool guy ,hopefully there's a lot more coming from Jim in the future.

**Greg Hardt**

December 19, 2015

Hi, we spoke some years ago regarding my 24' cold mold fiber glass Piver Nugget Hull # 42. She was built in 1966 in Alviso California by George Llewellyn, Lasko Marine Co. I bought her in 1999 for \$50 from a gentlemen at the San Leandro Marina in California. At that time she had been wasting away in her slip for about 11 years and was on her way to a landfill. I brought her up here to the foothills of Berry Creek California for what was to be major restorations. I was able to launched her on Lake Oroville California by the late summer of 2000. She is easily trailered and I have enjoyed sailing her in this area for the last 15 years. I sent an e-mail to you at

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

[MoreInfo@smalltrimarans.com](mailto:MoreInfo@smalltrimarans.com) that included pictures but it came back undeliverable. If you could let me know how to send you I would be happy to share them. Thank you Greg

# The Racing Dazcat 8RT Trimaran

July 12, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Dazcat, Dazcat 10RT, Dazcat 10RT Trimaran, Dazcat 8RT, Dazcat 8RT Trimaran, Dazcat trimaran, Multimarine Composites UK

## Comments

**captainsideburns**

July 18, 2010

can you get any more info on the 7m ply trimaran mentioned?

**Small Tri Guy**

July 18, 2010

Good question captain. It must be a product one can get in the U.K.

# Little "Vacation" Trimaran

July 17, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: cartop trimaran, directboats.com, little trimaran, mini trimaran, plastic trimaran, rotomolded trimaran

## Comments

**Fred Goldfarb**

July 17, 2010

This cute little tri looks like a nice alternative to a kayak with a sail rig, like the one I had in my early twenties. Might be good for camp-cruising.

**Mike Lear**

October 5, 2010

It's a Maora trimaran ([www.maora.fr](http://www.maora.fr)) made by a Frnech company, called Nautylys. I haven't sailed one, but I have seen many in France. They look like lovely boats

**Small Tri Guy**

October 5, 2010

Hi Mike,

I'd seen the Maora trimaran before at ... <http://www.nauticexpo.com/prod/nautylys/sport-trimaran-32736-200426.html>

For some reason I never connected these 2 different images. Thanks for your input!

**Dave Gariepy**

November 19, 2010

I am the sole importer for North America and have several boats still in stock for anyone that's looking for a year end deal!

Contact me now at 1-514-457-2727!

**Small Tri Guy**

November 19, 2010

Hi Dave,

Great to hear from you! Let me also post your website for anyone that reads this and is interested ... <http://www.maorasailboats.com/>

# Uncovering the Dobler Triad Trimaran

July 19, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Dobler trimaran, Joe Dobler, Triad sailboat, Triad trimaran

## Comments

**Don Turner**

August 14, 2010

Wow what an intriguing little boat. I had a Crowther Buccaneer for a time, and am looking for something smaller to build as a replacement. Anyone have any contemporary experience or thoughts about the "planing" concept as it relates to tri's?

**Richard fraser**

November 17, 2022

The fastest-rated racing Trimaran ever built. It was built in Redondo Beach, California. Raced from Redondo Beach to Catalina Island and back.

I was fortunate enough to use the same jigs to build a 25 ft. Piver Mariner Trimaran after the Triad constructions (there were more than one built) ceased.

The main hull and floats had flat bottom surfaces and obtained speed by planing nearly on top of the water.



# More on Lock Crowther's Buccaneer 24 Trimaran

July 24, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Buccaneer 24, Buccaneer 24 Trimaran, Crowther Buccaneer, Crowther Buccaneer 24, Lock Crowther Buccaneer 24 trimaran

## Comments

### **Fred Goldfarb**

July 24, 2010

I have read your old book "Modern Catamaran Design", a great read back then, but don't have a copy in my personal library. I recall seeing your name around a lot as well. I owned two Brown Searunners so far and have raced and sailed on many other multihulls. Crowther may not be well known today but his cruising oriented Buccaneer series were exceptionally good boats, and fast. His Kraken series were just terrific race boats, and might even be competitive today, though probably some sort of handicap rule would likely be needed.

The Buccaneer 24 I always thought was a very interesting smaller tri. I've seen them, been on one but never sailed one. I've raced on a larger multihull (up by Toronto i turned out) and one member of the Toronto Multihull Cruising Club had a B24. To say it's stunning performer is, if anything, an understatement. I had a nice, fast small tri when I was single, a Searunner 25. However, it was a slow boat to the Orient when compared to the B24! If you have the guts, you'd make it from City Island, NY out to the end of Long Island in about half a day, meaning leaving early, around 7 or 8am, and arriving around Greenport by or before dark. That's only about 115 miles along LI Sound. Try that on nearly any other boat except another really fast multihull! (Of course winds have to be right for that too.)

I think the B24 is one of the older, faster cruiser/racers that would turn a heck of a lot of folks onto the joys of multihull sailing if they only sailed one!

### **Reuben Filsell**

February 22, 2011

Can ANYBODY find me a set of Buccaneer 28 plans PLEASE !

Cheers,

Reuben

Fremantle

W.A

[filsell@myplace.net.au](mailto:filsell@myplace.net.au)

### **Lutz**

October 17, 2014

Hello,

How can i find out where to purchased the Plans for the 24 and at what cost ?

Thank you very much

Lutz

### **Small Tri Guy**

October 17, 2014

Hi Lutz,

Contact the fellow nicknamed Oldsailor at the following page - <http://www.boatdesign.net/forums/multihulls/22-24-trimaran-23449.html>

He sells the Buc building plans.

### **Doug Haynes**

January 12, 2015

Good news! 24 years ago I bought and enjoyed a B24 for 8 yrs; saying since, many times "it was the best boat I ever had." (30odd to date!) well 18 mths ago I bought another one in pieces, and rather neglected. However in Nov 2014 she was launched, and am now completing the interior, electrics, bunks, etc. I put the sails on her for the first time, today, and am now itching to get going/flying again! These babies will do wind speed on a reach, up to 30 kts. I covered the last two miles of a race once with the previous B24 @ 30 kts SOG ! Wow !

Doug

### **Brooke Johnston**

April 25, 2015

Just an update for everyone.

We now market and sell the Buccaneer 24' Trimaran plans that Patrick used to sell to keep her alive, we took over from OS7 last year on Boatdesign.net you can find us under Outside the box or the plans are available on the plans page of our website. We are also finalising a modernisation of the Buccaneer 24' Trimaran and these details are on the website also.

We purchased a Buccaneer 24' Trimaran to use as a test bed for our many design ideas. When finished the design will be a foil assisted 8.5mtr Buccaneer inspired performance Trimaran.

Regards

Brooke Johnston

Office Manager

Ezifold Yachts Ltd

Christchurch

New Zealand

[admin@ezifyachts.com](mailto:admin@ezifyachts.com)

**Roman P.**

January 5, 2021

I'm looking for a set of Buc 24 plans since ezifold yachts is no longer in business.

Roman P.

**John Mottl**

July 20, 2022

The B24 that is mentioned in this article named "TOY" is currently for sale on Toronto Kijiji. for \$9,800 in case someone is interested. It's not my boat (I own a Farrier F36/39 that we're sailed to New Zealand and I don't even know the owner)

I hope someone here will buy the boat since she sounds like a special one.

I notice that there seems to be no cabin on here and just an open cuddy, so she must be much lighter than other ones

# A Peek at the Philippine Paraw Trimaran Regatta

July 29, 2010

Categories: Small Tri Info - All

Tags: paraw, paraw canoe, paraw double outrigger, paraw double outrigger canoe, paraw outrigger, paraw outrigger canoe, paraw regatta, paraw trimaran, Philippine Paraw, philippine paraw sailing canoe

## Comments

### Frank

April 4, 2011

I just discovered these amazing Philippine Paraws, and I am fascinated by them, Where can I get more details about how they are built — hull shape, sails, rigging, etc?

Thanks – Frank

### Small Tri Guy

April 4, 2011

Frank, acquiring info on these (in English, at least) can be tough. You may want to contact Gary Dierking via his website at <http://homepages.paradise.net.nz/garyd/> and see if he can share any info about these.

### Badong

April 18, 2011

The common outrigger is called a banca in the Philippines. Haven't been to Iloilo but it could be the equivalent.

I had one built and they use a good tree trunk to form the base of the hull. It will be the foundation for the sidings mostly marine plywood.

Am thinking the amas could be improved to be hull like as well since they are currently using bamboos. Its purpose is mainly to balance the entire craft. Sailing bancas have wider akas. Powered ones can settle with a narrower one. Banca builders have different approaches. If its for racing its crafted differently compared to ones that will be used for other purposes.

Fishing villages usually have boat builders around and they would be the subject matter experts on such.

As to how they sail and how fast. no idea. have no instruments of such kind but they can go pretty fast downwind.

### ligaya

September 3, 2011

Another Philippine trimaran/banca is the vinta, the traditional boat of seafaring Badjaos. Zamboanga City in south western Philippines holds Zamboanga de Regatta every year.

Instead of triangular sails, the vinta has rectangular/square sails with distinctive colorful prints.

### Francis Kevin Cristobal

March 14, 2014

Hi can you give me where will i get the fabric of that sail, and what type of material is that.?

Thanks.

### Eddie

January 15, 2015

I had the pleasure of building a paraw with some local carpenters. Its hull is much narrower than your ordinary bangka, mine is only 16" wide. Half a tree is whittled by axe, machete, and finer tools becoming the boats keel. A plank is implanted nearly the full length of the bottom (sorry I don't know my boat terms) 1.5 inches wide and 3.5 in addition to give the boat even more upwind ability. The frame is fitted into the keel, then plywood fitted to the sides. The three outrigger support beams were of Palo Maria (a semi-hardwood, while bamboo is traditional) and carved by machete and planer to bend in perfect arc like a bow. These are at 6' 10' and 15' from the bow. The outrigger bamboos we used were a girthier, less dense cousin of the thinner and denser bamboo we used for the mast and boom, I don't remember the species' name. The mast is two thirds back, 7' on my 21' paraw. The outriggers are equal in length to the hull and also 21' apart so the boat makes a square. The mast is a little taller than the length of the boat, 24' from its support in the base of the boat to its top. The hull is roughly two feet tall so that both halves of a 4x8 plywood can be used. It is mostly held together with copper nails, nylon chord, and an epoxy they are very fond of and is sold everywhere in the Philippines, it is a pinkish when mixed. The boat is very stable though I have still managed to have some very scary moments on it. I believe I've gone 20 knots across wind. It is also very capable upwind. The sails are the strongest tarp; they are sold at the upholstery shop and the ropes are all three-strand nylon.

### Eddie

January 15, 2015

A cool thing about my version of the boat (not sure if it's the norm) is that it can be controlled from anywhere on board as the rudder is controlled by a rope that runs a diamond around the boat and back to the opposite side of the rudder.

### Bill

August 27, 2017

Eddie, how have things gone with your boat?

### Michael Storer

November 15, 2018

Whiz through this document for lines and sailplans.

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Sorry it is on facebook.

[https://web.facebook.com/download/1048104908670121/AguilarHullForms97a.pdf?hash=Acrlqj-HEqtc1PQ\\_](https://web.facebook.com/download/1048104908670121/AguilarHullForms97a.pdf?hash=Acrlqj-HEqtc1PQ_)

**Michael Storer**

November 15, 2018

And one on comparison of hullforms.

# How You Can Build An Inexpensive Kayak Trimaran

August 2, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: build trimaran, Chesapeake Light Craft, chesapeake light craft trimaran kayak, kayak trimaran, trimaran building plan

## Comments

**Fred Goldfarb**

August 2, 2010

Hey, don't forget all those places you can more or less download free kayak plans, though you may also need to download a particular reader program to view them. You might also think about local area people who have a kayak for sail, and adding some old 4th hand catamaran hulls like from a Hobie 14 (?) plus sail rig. Total cost probably would be under \$500 or so (just a guess here) and save you the time and expense of building a whole kayak and amas and sail rig. Galvanized stuff from Home Depot might let you connect amas to main hull and figure out a cheap way to rig the sail too. Make sure you get or make a rudder if you don't or can't steer using the sail(s) alone. Maybe try a Polynesian style steering oar off the side!

**Brian Graham**

August 6, 2010

I just built a sailing rig for a 12' kingfish from mainstream kayaks. I had a lot of fun doing it also. If you want to check it out you can find me on youtube under "Brian Grahams Sailing Kayak".

**Small Tri Guy**

August 6, 2010

Hi Brian,

I found your video at <http://www.youtube.com/watch?v=u8LloxKpBFI> ... great job!

**Brian Graham**

August 23, 2010

Thanks, I am currently looking for something bigger and faster like a Prindle 19 or Hobie F18

**Small Tri Guy**

August 23, 2010

Hi Brian,

You shouldn't have too much trouble finding something akin to these here. There are several models that will fit the bill.

**ian**

August 25, 2010

I don't have the time or resources to experiment with this idea, but perhaps someone else can run with it-

seems to me that a large sailboard of the "floater" variety- usually beginner boards that are very thick (some up to 6") and bouyant- could be split down the middle lengthwise and the two halves could then be used (after resealing the cut edge and adding mounting hardware) as amas for a small kayak or canoe based tri.

Depending on the donor board and the performance aspects sought, the pieces could either be oriented flat for maximum flotation and righting moment at minimum heel angle, or could be oriented on edge so that the righting moment would progressively increase as the boat heeled....or they could be at some angle in between, maybe even adjustable.

it may be wishful thinking, but it would also intuitively seem that orienting the board's rocker so that the belly of the curve was away from the main hull centerline (towards the outside of the boat) might also help with ability to go to weather...I doubt that it would replace some type of board/keel entirely, but having the entire lee hull curved to weather on both sides (as opposed to Hobie's asymmetrical hulls) might help in that regard if the board was oriented more or less on edge.

At least that's what runs through my mind when I see used sailboards of that type in the 9'-12' range at some thrift store or yard sale, going for next to nothing because they are out of style or have no rig or boards...

# Brand New Adventure Trimaran On Deck

August 9, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: adventure trimaran, adventure trimaran images

## Comments

**Pedro Cabral**

August 9, 2010

Man, so many alternatives in the realm of small trimarans! Piver an his fellows started it all but I'm very glad to see that the fever hasn't died. Lots of alternatives for those planning to build a a small trimaran, and lots of alternatives for those searching to replace an older one!

Again, congrats on the site and thanks for keeping us up to date ;)

Pedro

**Small Tri Guy**

August 9, 2010

Hi Pedro,

Glad you enjoy the site! I love posting what's happening "out there" in the world of small tris :-)

**Carlos Solanilla**

September 18, 2010

This is the new version of your tri - I looked at your web site and could only find the first design - do you have more information on the new platform?

**Small Tri Guy**

September 19, 2010

Hi Carlos,

To my knowledge, Mark doesn't have any new information about this new design at his website (at least not as of today). So we'll have to wait for him to share more with us about this sailboat.

# Sailing a Supernova Trimaran in New Zealand

August 14, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Ib Pors Nielsen, Ib Pors Nielsen trimaran, Supernova, Supernova trimaran

## Comments

### Pippo

August 26, 2010

I used to have a Supernova which I recently sold to buy a more racey Formula 18 catamaran. VERY nice little boat. I did not find it particularly easy to tack, but going out in 25+ knots was really exciting! Not as exciting as sailing on one hull under gennaker on an F18, but close!

### Graham Wheeler

September 10, 2010

Good to hear you liked the Supernova. I am relatively new to trimarans/ multihulls so the fun I had last Summer with it was great and now I am currently rebuilding a Farrier 18 I bought back in May. Lots of work but I hope to be sailing in November but I still have the Supernova if the Farriers not ready. Weather here in N.Z. is getting warmer (Spring) leading into Summer. I gather you are from the States.

Cheers,

Graham

### Iemerle patrick

October 6, 2010

my supernova is really nice to sail .

without jib furl but with news mylar sails cut by a friend .

it's rather fun..

i bought my supernova in switzerland (lac de geneve) and now she sails in bretagne

(west of france) i think the weather is rather similar as new zealand.

i've put a floatter at the top of the mast but perhaps it was not necessary .. ?

in france she ever surprise sailors i dont know if there is another supernova in my country..

happy to find "fans" of supernova on the other side of the hearth

congratulations to read al my message despite my horrific english.

patrick

### Graham Wheeler

November 3, 2010

Hi Patrick,

Sorry I have just read your post about Your Supernova. Great to hear from other owners of these great little trimarans. To be honest I haven't been sailing my Supernova since last Summer but the weather here in New Zealand is warming up (20 degrees) and the last 2 weeks have been perfect sailing weather but..... I have been frantically trying to finish the restoration of my farrier 18 trimaran I bought back in May. Nearly there. Another week should see it ready for a sail. I will post an article on it soon so watch this site. I will continue to sail the Supernova as well. Am hoping for a long hot summer with fair sailing breeze. My e-mail is : gdw AT orcon.net.nz if you want to keep in touch regards the Supernova.

Cheers,

Graham

### Renaud anne

July 29, 2011

Hello, great to know that the supernova is not dead. I bought mine two days ago. I need some information about the rudder. Mine is not an original. My supernova did not sail correctly sometimes. I would like to build a new one. Where is it possible to get the original template? Thanks for your help. I am French ... sorry for my bad English.

### Small Tri Guy

July 29, 2011

Hello Renaud,

The designer of the Supernova, Ib Pors Nielsen, was European. I'm guessing that it won't be easy finding the information you need. You may be better off getting one of those knowledgeable French multihull sailors to help you shape a new one. It shouldn't be too difficult for a sailor or designer with some experience.

### Bruce Greig

March 16, 2012

Hi Guy's,

I currently & sail a supernova, I am in the process of a making a new set of moulds

for a 15ft trimaran similar to the nova with more volume in the amas also with telliscopic beams, this will allow it trailable and should make it quicker to rig, lounch & retriive , as i live in tin can bay, queensland. australia, where the tides avg 2.5 metres, so the need to use a boat ramp is required. If you would like any further info at;

[brucegreig1@bigpond.com](mailto:brucegreig1@bigpond.com)

### Renaud anne

March 21, 2012

Hi every body,the spring season is coming to the north hemisphere.i found during the winter at 50 km of my home ,a guy owner of few original supernova parts.i bought to him the rudder(never use) a complete set of sails (made by Neil pryde).i found also all the documents concerning the supernova class rules.if somebody needs it I shall be able to email.see you.

**frans**

April 5, 2012

looking for maneul have a supernova but its not compleet

**frans**

April 8, 2012

fransvandenbroek01 @ gmail . com

**agur**

October 13, 2012

Hi!

I just wandering, can anybody tell me about his/her experience in sailing with Supernova in choppy seas? Does it dig too often, has it enough power in the sails to ride through the shallow but really steep waves?

I have owned a Hobie 14, Nacra 5,7 and a Dart 16 and now thinking about small tri. Found one from France, but would like to gather more information about Supernova abilities.

I wonder if the Supernova is a good choice if one would like to have a long trips in various conditions...

**Renaud anne**

October 14, 2012

Hi Agur,of course to Buy a supernova Is a good choice.It is a perfect small tri by light and strong wind.I sailed it this summer to the Atlantic sea( 20 knots of wind with 1.5 meter of waves) no problem.Of course mine is a little bit modified and more rigid than the original.if you want to push it over his limit,you need to buy new technology sails ,change the mast .It is difficult to compare his abilities with a hobbie or a Nacra because they wear different sails size.If you need some pics about mine (modified), It will be a pleasure to show you.on the beach you can be sure to be seen by everybody due to his fabulous modern shape.Do not forget it was created in 1983!

Renaud from France.

**agur**

October 15, 2012

Thanks for your reply, Renaud!

For me is essential that I could solo in various conditions. This is a reason why I move away from beach-cats. They are rather fast, but when you have a long distance to sail, its hard to handle day long when the wind is over 16 m/s and really choppy waves against...

Im pleased if you could send me some pictures of your modifications, please email them to aguirres @ gmail.com

Thanks!

**agur**

October 15, 2012

By the way, is it smart to put a trapeze for Supernova?

**renaud anne**

October 16, 2012

I think it is not necessary because in fact you often ride seated in the middle of the supernova even if the wind is strong.

**agur**

October 16, 2012

probably its not needed yes, since there is not much sail area. Though I have a old Nacra 5,7 mast, but I think it would be rather crazy to rig it for Supernova – its 9.15 m.

By the way, have you ever pitchpoled your Supernova? ... or even further turtled it? Is it hard to get it upright alone?

thanks!

**renaud anne**

October 16, 2012

yes i did one up side down.Along it was hard.since this date i put a hobie mast ball .

**Mark Hicls**

April 27, 2013

Fantastic to find this supernova thread ! Ive have mine for about 20 years, its been a lot of fun – but now I have to find a new mast for it as it pitchpoled in the dinghy park a couple of months ago in high winds and now has a screwly slightly bent mast – I was considering straightening the mast, but many people have told me not to as the end result will be dangerously weakened – I'm not sure they are right – anyone got any views on that or on a suitable replacement ? I sail mine in the Solent and on the river severn in the UK – I have turtled it and it was a pain to recover on my own, I use a float at the mast top now – as for high seas – Im not sure i agree that the supernova is good in those conditions – as you all now, if either float digs in, it tends to be all over very quickly !

**Small Tri Guy**

April 28, 2013

Hi Mark,

Thanks for sharing so much great info about your Supernova. I suppose the lower volume floats are both a blessing and curse. This is a perfect example of how boat design is filled with certain “trade-offs.” Your idea about a float at the top of the mast is a great idea though.



**agur**

April 28, 2013

Hi Mark,

I do not know how severe mast bend you got there... but in my experience the minor bends is repairable. My friends Prindle 15 mast was damaged by a falling tree. We took the mast to metal-shop and it was righted back. I didn't noticed any weakness after re-bend. But the metal-guy really knows his tools and has a extensive know-how and the bend wasn't severe also.

Agur

**Xav**

June 22, 2013

Hello every body,

I love small trimarans.

I have a project to buy a supernova so i'm looking for lots of informations about it.

Renaud , i'm living in bretagne in france too !

Can you help me ?

thank you

xav

**Renaud anne**

June 22, 2013

Hi xav,i saw one supernova to sale to the "leboncoin" for 2000€ three months before.

[http://www.leboncoin.fr/nautisme/offres/ile\\_de\\_france/occasions/?f=a&th=1&q=Supernova](http://www.leboncoin.fr/nautisme/offres/ile_de_france/occasions/?f=a&th=1&q=Supernova)

Do not hesitate one seconde because it is rare.

**Renaud anne**

June 22, 2013

If you want to try mine I shall be to the Pouliguen all July.

**Mark**

June 23, 2013

Hey Xav - and i live in the south of england. Buy one and we will have three for a race :)

Incidentally, I wonder if anyone on the forum reading this has any experience of a handicap for racing the Supernove tri in mixed class sailing ? The club where i sail in the UK are reluctant to give me a position without some more information, I just know we are faster than a laser 1 !

M

**xav**

June 23, 2013

Hi every body,

this morning i saw the supernova of leboncoin !!!

it's nice, good health !

But i think that the floats are too small for me.

You know i'd a Weta but i sold it because it was too expensive to me.

SO the supernova is still interested me at the condition that i boost is power.

That mean building new floats . i studying 200l floats and a geneker like the weta .

My deam is to have a boat better than the weta !

xav

**brad**

August 14, 2013

Can't believe their is still active supernova users out there! I'm over in british columbia canada...I have had my boat disabled for the past 8 years (I was going extremely fast down wind and I coukdntveer off from the force.. it was a rock wall or the beach, the beach it was.. the impact taced the front rail on the tramp...) I work in a machine shop now and just fixed the pole all looks grwat now.... I've been trying to research pictures of rigging.... not getting very far.. some pictures I can see a pulley on the forestay.. anybody got one they could send some pictures of???

**Renaud anne**

August 15, 2013

Hi Brad,could you give me your mail i am goiing to send you many informations about this fabulous supernova and all the modifications I did to get a race strong boat and not a chewing gum.

Renaud from France.

**Renaud anne**

August 15, 2013

I forgot to let you my email.

[annerenaud@neuf.fr](mailto:annerenaud@neuf.fr)**brad**

August 15, 2013

[brad@candidapple.ca](mailto:brad@candidapple.ca)

Or did you want my mailing address?

2810 boyd rd kelowna bc v1w2e7 canada

**Mark**

August 17, 2013

Hi renaud, and all – I got my mast straightened and now we are sailing fine ! You guys who advised me on the forum were right it was over engineered and took the straightening process no problem, had to use a boat yard though the mast is way to strong for a home made rig. Renaud you said last year you had documents about class sailing, I'd love to Get hold of a copy, can you send them to me ? My mail is markhicks AT blueyonder.co.uk and anything else you sent to brad would be great too !

**Renaud anne**

August 17, 2013

Ok mark.i shall send you all the documents next Wednesday because I am on Holliday and far of my home.

**Tony**

October 19, 2015

So yesterday I purchased a Supernova.

Absolute bargain at AUD\$300.00 complete. Needs a little bit of work and some of the improvements that Renaud was kind enough to email me. However it can still be sailed in it's current condition.

Looking forward to setting it up and checking everything over before setting out.

I think the ama bow nose dives can be easily fixed with the hobie bow foils design. If not then I will add closed cell foam to the front with epoxy to extend and improve volume and reshape with a flared wave piercing design. Fairly easy to do and will not add much weight.

May also look at a bow sprite and furling geneker once I get the bows sorted.

Anyway for \$300.00 I can afford to spend a few more dollars modifying and improving, At the end of the day I'll have a very fast little tri at less than 1/10 the cost of a Weta.

It may end up about 20% heavier than the Weta but that's not such a bad thing having some momentum to drive through chop.

Set up looks fairly simple and I'd guess around 20 to 25 mins once familiar,

Seriously happy with this little project, at the price it allows me a lot of scope to mess around with and modify to suit different conditions.

Ideally I think I'll end up with a double windsurfer sail plan mounted on the amas / frame in an A configuration, first things first though I need to get her on the water and going.

Just a quick question: The centre board / dagger board is a big slab of 10mm aluminium plate with the front rounded and the rear pin tailed. It weighs in at around 10kg. I was wondering if it had some type of ballast effect? Would be very little? I'm looking to replace it with carbon epoxy laminated paulownia wood design that should come in at around 3 kg max. Anyone got any recommendations on this?

Thanks

Tony

**Small Tri Guy**

October 21, 2015

Hi Tony,

I wouldn't be too concerned about the weight of the centerboard as is. Of course, redoing things in carbon would reduce weight and make the overall boat weight even lighter, which is understandably more desirable. I am not sure how it should be built though.

**Mark hicks**

October 21, 2015

Welcome tony to some beautiful sailing at a stupid price – eg when it hums it's all good ! I'd like to know how you get on with a synthetic centreboard, the ali version I have is heavy, ive thought of changing it but never done it.

Mark

**renaud**

October 21, 2015

Yes Tony,the dagger board has some type of ballast.If not the architect in 1983 was able to built one lighter .Any way it is a light boat ,it should be better to buy new technology sails than trying to make it lighter .

**Tony**

October 21, 2015

Thanks for the reply.

CB is a fairly basic shape and uniformed thickness, I could use a piece of G-10 epoxy glass sheet and replicate quite easily.

I have been looking at this platform in a lot more detail and am fairly excited by the potential for upgrading over time.

So far my plans are:

1. Get existing design set up and sailing. ~ \$0.5k
2. Minor improvements, latches, strengthening, centre board material replacement, etc. ~ \$0.5k
3. Improve ama volume with major bow reconstruction and extension ~ 30cm using laminated foam core epoxy build up over existing. Looking to epoxy high density foam into place and shape like you do with a surfboard to form the new bows, once shaped small key in holes to existing hull will be drilled so that I can dowel lock in position, add some strengthening carbon stringers and then epoxy and fibreglass finish then paint. Should come up seamless and strong. ~\$0.5k
4. Revised sail plan for double boom less windsurfer rigs mounted in A frame arrangement. ~\$1.5k
5. Make some foils, I have a foil design I have been working on for 2 years for which this little boat is the perfect platform. Ideas derived from kite foilers but calculated for significantly higher load carry, speed capacity, cavitation and venting resistance and balance ~\$1k. Paulownia formed ply with epoxy carbon finish will give both strength and shape / profile.

So it looks like I have a fair amount of work ahead of me in getting this boat to the ultimate design I want, but given the price I picked it up for I can afford to spend a few more pennies and experiment with it.

I'll make sure I document each phase and do a write up to post to this site.

**Rasmus Møller**

May 25, 2016

I bought a SuperNova trimaran autumn 2015 and this spring I am beginning to sail it. Fun little thing – three adults is a crowd, though; 1-2 adults good.

Was out in 8m/s wind and confused waves from a fetch of ~30km. Could not tack the normal way, but was able to tack by letting the jib loose, backing the main, pull the rudder over “the wrong way” so drifting backwards a little the boat turned/tacked the right way. I find it otherwise very well behaved in those conditions, though I get a mixture of exhilaration and anxiety surfing back home on those waves :)

Burying the outriggers is no problem as long as you hold the main sheet in your hands at all times and release a little when the outrigger submerges.

The flat foil is sometimes a nuisance, as it stalls easily, when there is little wind; I wonder, if leading edge serrations/tubercles could delay low speed/high AOA stalling. Anyway there is no room in the slot for a proper NACA profile.

I also consider beveling the trailing edge to mitigate humming vibration at speed.

Finally I'd love to build a simple and light higher displacement main hull – something like Gary Dierkings three section 7.2m Wa'apa. It should be simple to attach it to the trampoline frame, but harder to make a proper centerboard/leeboard config.

**Renaud anne**

July 20, 2016

Hi everything body, I have been opening a Facebook page named SUPERNOVA for two days.

<https://www.facebook.com/groups/1050600301722484/?ref=bookmarks>

It should be open for the public later due to many things I need to store.

So for the moment you need to ask me to be accepted for the access.

It is your page, store all your pictures, boat modifications, item for sale etc...

JOIN US NOW.

Best regards Renaud (French owner)

**Erik Gustafsson**

July 26, 2016

Thanks Renaud anne for setting up the group on facebook!

Im just curious if anyone has any mast specifications? I have been offered a Supernova quite cheap here in Malmö southern Sweden. Unfortunately the mast is fully broken.

What length et cetera should the mast be? Any ideas for a good replacement option?

Has anyone tried making or buying a carbon or carbon/kevlar mast for the supernova trimaran?

Looking forward to becoming a Supernova owner!

**Per Engelhardt**

November 8, 2016

I bought my Supernova in July 2015. I have it in the Stockholm archipelago in Sweden.

Before sailing I fixed missing lines for barberhaul and traveller. After some sailing I realised the main hull was leaking, not much but a few liters after some hours sailing. After a capsize I could not get it up without assistance as the mast is open and have no buoyancy. I also had some doubts about the strength of the main hull where the beams are fastened.

So before this season I fixed a few cracks in the bottom of the main hull, added topcoat underneath for wear resistance, reinforced the area around the holes for the beams with a few layers of glass fiber mat and fixed a Hobie cat float for the top of the mast. I also changed the halyards to thinner dyneema lines, the old ones were of bad quality. Big difference.

This season the main hull was dry inside so I probably found all cracks. It feels safer with the mast float but I have not tested if it helps after a capsize.

It's a fun little boat and you get a lot of value for the money. The small floats make it a little tricky to sail in gusty conditions but that can probably be handled with more

hours on the water.

Anyhow you need to react a lot quicker in this boat than in my 8 meter trimaran...

**martin metherell**

September 25, 2017

Very interested to find this blog, i have a supernova tri up here in Orkney, been sailing it most summers for the last 10 years, its absolutely standard and still in great condition, thinking of sailing in warmer waters next summer (i will be 64 yrs young) perhaps i will come over to Brittany?

**Mark**

March 13, 2018

My Name is Mark,

I sail a Supernova in The Okanagan Valley (in BC Canada)

It is an absolute joy to sail. Hoping to get more hours this summer.

Protip: get a old phone in a waterproof bag and run a speedometer app. Fun to see how fast you are going.

Next projects:

\*Try to fiberglass some ribs like the bazooka trimaran. Goal: be able to safely crash / beach the tri.

\*Create a small deflector on the ama. Goal to prevent ducking in waves, pushing the ama upwards.

\*Oh and 100% waterproof the hull...

Ahoy from The WestSide

# Dragonfly 14 – A Family Oriented Trimaran/Skiff With Performance

August 18, 2010

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: beach trimaran, Dragonfly 14, Dragonfly 14 trimaran, small trimaran, trimaran skiff, Weta trimaran

## Comments

**Frans Vanleeuwen**

October 26, 2010

Lance,

Please keep me posted as I look forward to the finished project!

What are your thoughts on sailing performance? Similar to the Weta?

Also, are you planning of making plans available and general cost to build?

Please advise

Frans Vanleeuwen

San Diego, USA

**Doug Penny**

December 24, 2010

Sounds like you've really sunk your teeth into this one. As with Frans, I'll be following your progress with much interest.

Bravo!

Doug

**Garth Lee**

December 25, 2010

Well done Lance a really "cool" tri and more than a source of inspiration for my own ambitions, Great work and thanks for sharing it.

**Peter Vinnicombe**

January 4, 2011

Hi Lance, we live in Durban and I have been looking at the Weta for sometime. A mate of mine has one in the States. The price is just out of the question. I would love to hear more about your boat, as it seemd to be the answer to "S A Rand bound sailors". I would be interested to know if you could build me a hull/s and let me have a prive indication?

Peter.

**Peter Vinnicombe**

January 17, 2011

Hi Lance. Happy new year. Its time for an update! How does she sail? Is the SouthEaster howling as expected this time of year? Would love to hear how the project is comming to reality. Regards,Peter [pvlaw@telkomsa.net](mailto:pvlaw@telkomsa.net)

**Robin**

March 6, 2011

I had a sail on this boat last weekend. A few little tweaks and it really will be a success.

Lance, Seems you do need to get these plans available for sale. When are they coming.

**juan pablo**

November 15, 2014

hello I would like you got images of the finished model and if possible get shots of this model and I'm thinking to build one for my thanks and congratulations

# A Sailor's View of the Horstman 24 Trimaran

August 21, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Ed Horstman, Horstman 24, Horstman 24 trimaran, Horstman trimaran

## Comments

**Fred Goldfarb**

August 25, 2010

I have known Ed a little for many years, and have been on several TriStar 27-9's, a 38, and a 48 the owner/builder lived aboard. Critics have said Ed's boats have too much windage, don't sail well, tack well, and so on.

I sailed on a 27-9 from Staten Island, NY with about 6 others. In shallow water and very light air, it tacked under mainsail alone with both daggerboards up. Underway in the outer bay heading towards the Verrazano Narrows Bridge, under perhaps 12 +/- Knots of wind, using a full main and around a 130% jib, close hauled, we did around 7 knots or so. A 34' monohull tried but couldn't catch us.

Ed's boats are very streamlined, the huge decks are great for kids and dogs to move about on (lifelines and netting are needed for safety as on most boats), and everything can be rigged for operation from the cockpit. Motion is generally very gentle, even in stronger winds and waves.

Ed's designs have been sailed in every ocean, went around Cape Horn, have one of the most enviable safety records around, and are amongst the best multihull cruising designs in any size by any designer.

They are as pointed out, more cruising boats, though I'd say you could day sail one easily, especially in the smaller sizes. I found them pretty dry to sail on, though a dodger and bimini come in handy as on most boats.

While some trimaran designs come up for sale fairly often, I've rarely seen any TriStars up for sale. Since Ed sold a great many plans, Tristar builders and owners seem to like them a lot and keep them a long time. If you can, go sail on one and see for yourself what a terrific cruising oriented TriStar is all about.

**Deon Smith**

August 3, 2014

I have bought a Tristar 18" and am busy refurbishing her. I am looking for a diagram of the rigging. I have sailed her a few times but there is something not right with the rigging. I need some help here please. Thanks

Regards

Deon

**Small Tri Guy**

August 3, 2014

Hi Deon,

Have you contacted Ed Horstman, the designer. His website is still up at <http://www.edhorstmanmultihulldesigns.com> and his email address is listed as edhorstman AT outlook.com

If he cannot help you then you can contact John Marples using the contact info at <http://www.searunner.com> and he will be able to help you figure out the rigging.

# One Family's Canadian Tremolino Trimaran

August 24, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Dick Newick, Dick Newick trimaran, Kurt Hughes trimaran, Kurty Hughes, Tremolino, Tremolino trimaran

## Comments

**Pedro Cabral**

August 25, 2010

Here in Alhandra lays rotting the famous Olympus Photo, which I believe to be a Rogue Wave (or something very similar) also by Newick. Lovely lines, everything flows together from one end of the boat to the other and the tremolino looks like an exact scaled down model! I'm sure they're both great performers, as almost all good looking boats are :)

Congratulations to Jerry and his very lovely boat! I wish him many years of pleasant sailing to come...

Cheers!

Pedro

**Patrick Gallais**

August 28, 2010

Hi Jerry,

Your boat looks great, but don't belongs to D. Newick's Portofolio, although some ideas seems copyied from him. Please don't call her a Tremolino.

Cheers

**Small Tri Guy**

August 28, 2010

Hi Patrick,

She does look a bit different than most other Tremolino trimarans. But she is definitely a Newick Tremolino :-)

A couple additional things about this sailboat that I discovered after posting the article are the following:

— The mast was taken from a "Flying Scot" dinghy and adapted to fit this boat. Jerry added a small aluminum extrusion section to it (which you can see if you look closely at the bottom of the mast) so its length is in proportion to what Dick Newick called for in the plans. Jerry said he still considers it to be on the "conservative" side, but he did that because he is very safety conscious. (Even with this being the case, the boat apparently flies past just about everything else on the water).

— Instead of building the newer, updated wooden hulls called for in the plans, Jerry adopted Hobie 18 hulls for use with this boat. With his combined boatbuilding and sailing experience he got them to work just fine. Most builders will want to avoid doing things like that because changing one little thing often forces necessary adjustments at other parts of a design. But again, somebody with a lot of building/sailing experience can pull it off. And I think the fact this craft ended up being an "eye-catcher" in the end is pretty neat too.

**Linda Rosner**

August 30, 2010

Just read Shelley and Jerry's story. How wonderful these old salts have enjoyed life together sailing and sharing all these experiences. I am sure that anyone who purchases this boat buildt with love and knowledge will have many years of enjoyment as well.

**Chris Clodfelter**

August 30, 2010

Very nice. I really like the artwork on the amas.

**Jorge A. Ramírez**

December 26, 2010

I saw the round bottom main hull and Dick Newick new amas in your lovely boat. Will you so kind and advise me where can I get a set of construction plans, and what construction method or system has to be applied.

Jorge

**Small Tri Guy**

December 26, 2010

Hi Jorge ... you can order Tremolino building plans from Dick Newick. Just go to his website at <http://www.wingo.com/newick/> and use the contact information provided and he will be able to help you.

**Bruce A. Alderson**

September 14, 2020

To Patrick Gallais – sorry to disagree, but this is MOST DEFINITELY a Dick Newick design. Dick spent a lot of time updating the earlier John Olin boat (which was a scaled-down Newick design), with added buoyancy in AMA's, curved cold molded AKA's and longer waterline and rounded VAKA sections. Even planned a homebuilt wing mast with more sail area for proven sailors.

I own an early TREMOLINO, tho' one with a WEST construction VAKA. I was a friend of Dick's, and have no problem attributing it's design as a NEWICK.

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

FYI.

Cheers, Bruce A. Alderson



# Restored Tramp Trimaran Sails Anew

September 1, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Farrier Tramp Eagle, Farrier Tramp trimaran, Tramp Eagle Trimaran, Tramp Trimaran

## Comments

**John Richardson**

September 1, 2010

Thanks for the great story. Have friends that own Tramps. I was looking for one also. But decided to build the Strike 18 by Richards Woods. Then plans changed and am building the Janus 22 Catamaran. Do you still have that load motor? That was a lucky find on the Tramp. I always look in the yards and fields for an old boat to restore.

Again thanks for the story.

**Fred J. Adler**

February 6, 2018

Hi, Anyone looking for the American built version of the Tramp known as the Eagle. Being an American laid hull, it complies with the Jones Act so you can charge for sailing lessons and tours (carrying passengers for hire). I am the original owner and used to use it for just that. Have the Sails including Spinnaker; and, the trailer. The hull and trailer have been stored outside in our dry, desert climate, which is both good and bad. Always thought I would get back in the Sailboat Tour business; but, getting kinda of long in the tooth for that. If interested in purchasing, contact Fred at 928-855-1555; or write to Fred the Fireman, P.O. Box 1061, Lake Havasu City, AZ 86405

**Dave Charles**

October 16, 2018

Is there any way to check for centerboard box leaks BEFORE you put it in the water? I recently bought a Super Tramp and I think it's o.k. but would like to avoid trouble if I can. Also, what are the dimensions on your 150 Genoa?

I have a Genoa but do not know what % it is. Would love to do a roller furling set up like you have done and will do so once all other obstacles are out of the way.

Thanks, Dave Charles – email: djc52d AT gmail.com

**David J Charles**

March 1, 2019

My Super tramp was fitted with a fairly new 5 h.p. Honda outboard when I bought it. When doing our first launch recently, I realized there is VERY LITTLE room to steer the outboard. Really a pain. I am considering an articulating motor mount to go on the transom as far away from the rudder as possible, and using a tiller extension to make it easier to get to. Any thoughts from anybody?

# Tramp Trimaran Restoration FAQs

September 6, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Tramp Eagle Trimaran, Tramp Trimaran

## Comments

Z

November 25, 2015

Nudge

How did you get a 9.9 hp four stroke to fit in the motor well? I was unable to fit a four stroke 4 horsepower Tohatsu in the well without modifications.

**chris hawk**

October 31, 2017

They seem like great boats. Do you have any more pictures of the mast rigging? How did you bring the halyards out through the bottom of the mast support?

# KH 23 Trimaran Sailing Pics

September 8, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: 23 foot trimaran, KH Trimaran, Kurt Hughes 23 trimaran, Kurt Hughes trimaran

## Comments

### **Proaconstructor**

March 25, 2014

I had those videos up for a while, then the kids got to an age where they preferred not to be on Youtube.

The KHSD 24 is probably the best bang for a buck in boating. I built mine about 25 years ago, for 3500 Canadian dollars, it would have been a lot cheaper to build in the US. That is minus rig and trailer. I built the trailer, it was pretty cheap, and I bought the rig for 1K. Today, those costs could be similar. In Canada, Epoxy is still around 100 bucks a gal, and wood is still around 7 dollars an 1/8" sheet. Lumber has gone up, but there isn't all that much in it. I am interested in the Scarab 18 as a move down boat. It weighs/costs the same as the KHSD24, which is twice as big.

My priorities when I built it were low cost, trailerability and camping. It is a 10 on cost, which includes time to build. For me, it is a 2 on trailerability and camping. Of course, those were not really promises of the design. What is a promise is performance and as far as I can tell in a wilderness lake, it's pretty close to a 10 on that ground also. I have gone on afternoon sails, when there wasn't a breath of air, but the boat keeps moving. If it ever does stop sailing, then it is easily moved with an SUP paddle. I don't have an engine mounted, though I am moving in that direction, if I can figure out how.s to home build the latter.

### **Charles**

August 23, 2015

I remember seeing Proaconstructor's Kurt Hughes 23 trimaran sailing videos prior to their deletion. I thought they were good enough to inspire someone to build a KH23. I got plans for the Scarab 650 sport but still like the looks of the KH23 alot. The boat in the videos, was that "Echoes"? Has Kurt made any changes to the early design? Looks great the way it is. The cabin could be bigger with more headroom but I like the lower profile giving good visibility from the cockpit looking forward. The KH23 looks like a smaller version of a Tomcat KH30 trimaran, another sharp looking performer.

# First Nicky Cruz Explorer Trimaran Being Built

September 17, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Delaveau Multihull Design, Graeme Delaveau, Nicky Cruz Explorer, Nicky Cruz Explorer trimaran, Nicky Cruz trimaran, Nicky Cruz trimarans

No Comments

# Going Places With Drifter Trimarans

September 23, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Drifter trimaran, Drifter trimarans, Duckworks Magazine, Mark Gumprecht, sailing canoe, small outrigger canoe

## Comments

**ian**

September 25, 2010

Very pretty boats; well proportioned and simple without a lot of extraneous design elements...somewhat reminiscent of the early hard chine Cross tris in that respect, which is one of the highest compliments a tri designer can get, in my book..

My only negative reaction is that were I to have a small tri like this, I personally would find the race car style seating arrangement of these and similar small tris to be kind of restrictive and something of an impedance to exploiting the benefits of a trimaran layout over similar sized monohulls.

I love canoes and kayaks and similar easily driven hulls, but don't like the fact that they tip so easily- adding stabilizing hulls is an obvious solution, but if you are still essentially stuck sitting in one position or otherwise can't move around much outside of a very narrow centerline, that doesn't seem like as big an improvement as it could be.

You might not ever be able to lounge around on one of these like you can larger tris and still stay in sailing trim, but from a comfort and safety standpoint, being able to move human ballast around and stretch out a bit seems like too good a deal to pass on, especially on a boat where sheer performance isn't the main goal.

It may be nice having your hands free but in extreme sailing situations on small boats, in my experience the reality is that your hands will be occupied hanging on or climbing up a steadily pitching deck in a last ditch effort to avoid capsize or pitchpoling, and your feet will be helping you get somewhere safer, either to a weather deck or hull, or out of the way of a catastrophic rigging/spar failure or something (another fast boat bearing down on you?).

That isn't to say that nobody else should like the layout and it certainly isn't a deal breaker here- they are gorgeous boats and no doubt would perform well with a more traditional steering/seating arrangement...whether they performed better or worse would mostly be a matter of what the users priorities were, but I'd be willing to bet that even the 12 footer would be quite a go-er even with two people in it if they were to sail it like a standard dinghy of that size, using body weight and leverage to actively trim the boat out.

**Danilo Acamp**

September 26, 2010

Drifter no You Tube: <http://www.youtube.com/watch?v=3YrPv2FPAA4>

I like Drifter!!!

**Mark Gumprecht**

September 30, 2010

Ian, Thanks for your comments, and comparison to Norm Cross designs. Norm Cross was a friend of mine when I lived in San Diego, and I used to go sailing with him while I was build my Cross 40 RC, which is the one pictured on the Cross website. What a great boat! What you say about being able to move around is true, and I have had the same thought myself on other designs I have seen. I have a 12' tri with a high performance rig, that is just like you describe. It's a fun boat, but more work to sail, and I have had my new 14' model going just as fast, but much easier to sail. In the article, I said these boat were designed for a purpose. They meant to be lightweight, easy to sail, easy get into, for older or inexperienced sailors. They do this very well, and are a pleasure to sail. When you put seats on either side, you lose the ability to paddle, and it's harder to get into. If I design the boat to be sailed harder, and in rougher conditions, it is going to have to be built heavier, and I don't want a heavier boat. I don't want to have to launch the boat off a trailer, at a launching ramp. Every boat is a compromise depending what your priorities are, but these boat are a big improvement over most of the small boats out there. I designed the new 14' model to be sailed in many different modes, depending on the conditions. One is to have seats on each side that slide out of the way, so I can still paddle. This will allow me to move my weight around, and I'm sure the boat will be faster. I will have a removable tiller when I am using the seats. The seats in this boat will be big enough to sleep on, so I'm going to make a tent for the cockpit, so I can camp on the boat. Adding stays to the windsurfer mast give you better sail shape, and I put a small roller furling jib on, with really improves the performance. But there is a beauty in simplicity on those days when you are lazy, it's late fall, and getting cold, and you just use the basic rig, get cozy under the cockpit cover, and enjoy a beautiful day out on the water.

**Dr. Frank**

October 2, 2010

Hi Mark - I've been making cats and tris in my garage for a few years, and I just stumbled on your Drifter designs. Wish I'd started there! You're right — there's beauty in simplicity. One sail is a lot less hassle than two, and if it's big enough, you'll fly anyway! Can you please tell me more about your mast rig — like height, sail size, and where you get your sails made? I'm planning a 16 footer, with my wife as occasional passenger. Do you sell any plans that would meet those specs? Thanks for your excellent work - "Dr. Frank"

**Arizona Family**

October 10, 2010

Very pretty boats; well proportioned and simple without a lot of extraneous design elements...somewhat reminiscent of the early hard chine Cross tris in that respect, which is one of the highest compliments a tri designer can get, in my book..

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**Mark Gumprecht**

October 12, 2010

Hi Dr. Frank, Thanks your interest in my designs. My 14' model use a 16' windsurfer mast, and has about 60 sq. ft. of sail. I've been making my own sails lately, but any sailmaker should could make you a sail. I just finished drawing the plans for the 15' model, modified to be slightly longer, with bigger amas, similar to the 14. It's a great boat for for one, or two people. It has a 17' mast with 68 sq. ft. of sail, or you can use a 16' mast if you want to save money. You can e-mail me if you are interested in plans. Mark

**Tim**

August 2, 2011

Mark,

I sometimes sail off the beach at Galveston. How will the Drifter 16 do in 2' surf?

Tim

**Michael Henry Mitchell**

August 13, 2021

Do you know if the Drifter 17 trimaran plans are available?

**Small Tri Guy**

August 13, 2021

I still don't see any plan for a 17-footer at Duckworks.com

**Glenn**

September 11, 2021

Great little boat - any plans for folding amas?

# FAQs About the Wavelength Trimaran

September 30, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bob Forster, Wavelength tri, Wavelength Trimaran

No Comments

# Sardine Run Trimaran Sailing in France

October 6, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Eric Henseval, Eric Henseval trimaran, Sardine Boats, Sardine Run, Sardine Run trimaran

## Comments

### **Boat Seller**

October 8, 2010

What a great site on Trimarans, I love this little sardine and quite compact but still worthy of great sailing. Nice!

### **al loomis**

November 6, 2010

fine design, elegant simplicity.

it wouldn't hurt to offer a folding model though, with staggered half akas. since boats like this aren't going to be kept on a mooring, many users will want to minimize set-up/pack time on the ramp parking lot.

not a big change on the drawings, of course, most could do this for themselves.



# 4 Guys, 3 Windrider Trimarans, and a Camp-Cruise In the North Channel – Part 1

October 13, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: trimaran camp cruise, windrider trimaran, Windrider Trimarans

## Comments

**John Richardson**

October 13, 2010

Great story and video. Have had my windrider in some heavy wind but not like the wind they had.

**joanie "toomanyboats" johnston**

October 13, 2010

I sure hope to do something like that one day. Thanks for the inspiration, fellas!

**Ray**

November 29, 2010

I admire the fleet's ability to respond to boat/equipment failures which shows good preparation. It must be said that, as open boats, this account shows that this craft is not suitable for all of the conditions that could be encountered in these waters. The trimaran can move quickly to find shelter and has intact stability in the outriggers' floatation (which hopefully is sufficient even when loaded down with cruising gear). However, they are still open boats with no self-bailing capability.

I think that the people who sell these boats have a duty to be more careful when highlighting stories like these which may give inexperienced people the impression that these craft are suitable for the use illustrated in the story. These are experienced people taking calculated risks in the course of an "adventure". A safety caveat ought to be front and centre here – especially in a promotional presentation.

It is a good idea to travel in company as these fellows did if the craft has no self-bailing or self-recovery capability. It might be a good idea to fit floatation bags in the main hulls of these boats as is done on kayaks for trips such as this. And finally each vessel in the fleet must have it's own ability to navigate without relying on the fleet leader.

Best regards,

Ray

**Small Tri Guy**

November 29, 2010

A couple thoughts related to the above comments:

First, the Windriders are as suitable for coastal cruising as any other small open-cockpit trimaran. No more. No less. They are rugged boats that are especially designed to handle the type of conditions these guys experienced on their camp-cruise.

Second, the Windriders do not have a "self-bailing" ability, but can be equipped with a hand-pump instead. To my knowledge, their pumps work just fine most of the time, and most of the time, water will not even become an issue for the main cockpit if covers and/or skirts are used ... depending upon what is needed to match the conditions.

Third, flotation bags aren't necessary for the center hull. If a Windrider ever did turn over the ama floats should keep the entire craft afloat without any extra flotation help from the center vaka hull. In other words, the craft would float just like most other trimarans would float under similar circumstances.

**Ray**

December 1, 2010

I read part two of the story. Mac is way ahead of both of us as he deals with the issues of floatation, bailing out and sailing in company at the end of his story. Again – tip of the hat to those guys. Can we just say that making this trip in an open boat is more adventurous than making it in one that is self-bailing?

The North Channel and Georgian Bay are my home waters and I do have a trimaran. I realize that for us the floatation issue is not so much one of sinking but of being rendered incapable of manoeuvre after being swamped. This is what happened to one of these boats when passing north of Strawberry Island. Boat full of water – outboard motor under water – and one of our unpredictable currents sweeping you toward some isolated rocks last visited by Captain Bayfield in the 19th century. Adding some floatation in the main hull may go some way to helping out in this situation.

Best regards,

Ray

**Mac**

December 5, 2010

Ray, Good discussion going here. These are important things to keep in mind. I just ordered 5 net bags, like coaches use for soccer balls. I am filling them with plastic jugs, putting 2 in each ama and one under the floor in the main hull. I do agree that the issue is more than just about sinking, but about being able to bail and be able to handle the boat. Each WR 17 comes equipped with a hefty bilge pump. The handle is between the helmsman's legs and is easily pumped when underway. And yes, I had too much sail up for conditions and didn't have my forward cockpit cover on. I would not choose to get myself in a similar situation again. I want a bigger margin of safety.

**Wilfried Stroeber**

December 20, 2010

Congratulations, You had a nice adventure and You were kind enough, to write about it.

Much has already been written about safety, but one issue remains open for debate: payload. My own experience, won by seakayaking and cruising in open dinghies, is:

less weight is more: more agility, when shifting my body in the boat, better manoeverability, more freeboard, easier paddling and rowing; or in Your case, better use of the outboard.

Best regards  
Wilfried

**Joe Murphy**

December 20, 2010

To all, and especially Mac,

Mac, thanks for reducing our trip to the written word. You captured the voyage well.

As one of the intrepid sailors on this adventure I can emphatically state that there were many lessons learned. Lessons that I'd learned long ago and yet were not observed. First, I failed to confirm that my charts had properly loaded into my charting GPS. Second, I had failed to purchase a good set of paper charts, relying on my comrades, who were not in my boat. Third, I failed to bring all of the tools and supplies that might be needed given an equipment failure. Were it not for the combined gear and tools Mac & Rick had with them I would not have been able to repair my bilge pump and, consequently, would have had a serious problem along the way. Fourth, when I make a decision to reef because I believe the conditions call for one I should not alter that decision until well underway and then only when the conditions have proved suitable for full sail. Fourth, while my wind/water shield proved capable of shedding "green" water I should not have set off on this voyage without my main cockpit cover. I would never have done so in the Atlantic, the Carribean, or the Gulf and should have respected the North Channel no less. Finally, on a trip like this one proved to be (high winds and seas) the WR17 is simply overloaded when carrying a crew of two with all the necessary gear and supplies for a week long camping adventure. Finally, I wish to echo Ray's caution: these boats in these conditions are not suited for novice sailors. Each of the sailors committed to this trip had decades of experience in boats large and small and conditions serene and extreme. Even with our experience lapses in judgement could well have resulted in serious, if not fatal, results. We were as fortunate as we were capable. That said, I recommend a North Channel trip to all; the setting, wilderness, and beauty are unrivaled.

Peace.

**Max Houston.**

December 13, 2012

I think the WR 17 is a very capable boat in rough conditions. Leaving the front cockpit uncovered was not wise. Also I would have used a rear spray skirt as well. I have been out in worse conditions than these with my WR and had a blast. :) The 17 is a tough boat. Glad you had a cool adventure. i hope you do one again with hatch covers and spray skirts and tell us all about it. :)

Max Houston, Marquette, Michigan

**Shane**

June 13, 2013

A torqeedo electric outboard would have been nice to have during that trip. They can be completely submerged in 3 feet of water and be just fine. Incredible story and sounded like a very exciting one at that.

**John Jezisek**

February 7, 2014

I noticed on Mac MacDevitt's article and on a YouTube video produced by Mac while doing an end of season sail on Lake Champlain, his Windrider 17 is set-up with side seating platforms on both sides of the main center hull. Mac or anyone else, can someone provide the source of these side seating rails etc. I am anticipating delivery of a Windrider 17 soon and this looks like a nice feature. My direct line is: 925-964-9128 office / 925-648-9366 home / e-mail address: johnj AT justpromosusa.com Thanks to everyone in advance. - John

# 4 Guys, 3 Windrider Trimarans, and a Camp-Cruise In the North Channel – Part 2

October 18, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

## Comments

**Tallsailor**

October 28, 2010

Mac,

Sorry I missed this one!

Great story, hoping to see a map on the journey, perhaps on the WR Forum.

Fair Seas and Strong Winds

**merle bailey**

January 17, 2011

Hello mac, Wonderful to hear and see that you are using the Windrider just as you imagined when we met in 2008 at Cedar Key. I was thinking of you just yesterday.

I had come across the great Utube videos on the Windrider Jim Brown has put together recently as part of his Vaka project and tried to find your contact information to see if you were aware of them. The address had disappeared. Just exploring, I went to the Windrider LLC website and there was your name and the connecting URL to your adventure.

With the others I want to thank you for putting it into the story with pictures and video that really brings it to life. It is inspiring me to complete the refit of my SeaPearl Tri for similar adventure.

# Seaclipper 16 Trimaran Sailing in Canada

October 25, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: John Marples, Marples trimaran, Seaclipper 16, Seaclipper 16 trimaran, www.Searunner.com

## Comments

**John Dryden**

September 20, 2016

I would like to find some more information on how to build the Sea clipper 16. Is there any video out there that shows the steps in how it is done?

Have a great day.

John

**Small Tri Guy**

September 20, 2016

Hi John,

To my knowledge there are no videos on how to specifically build the SC 16. But there is LOTS of info on the web (even YouTube videos) on how to build wooden boats using plywood and epoxy. John Marples building plans are very detailed. You can also download the Searunner Construction Manual (for free) at

<http://www.outrigmedia.com> and read about building a trimaran in wood.

# Searunner 25 Trimaran Sailing In the Northwest

October 30, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown Searunner, Jim Brown trimaran, John Marples trimaran, Marples trimaran, Searunner 25, Searunner 25 trimaran, Searunner trimaran

## Comments

### Stefano

October 30, 2010

Glassing the topsides.

For having owned a Farrier TT 720 I tell you that glassing with thin glass set in epoxy is a complete failure. Wood moves differently than glass and water eventually will always find it's way in some tiny crack, substituting painting jobs with rot removal ones, which is worst.

I had a great success by simply painting with a water based epoxy primer and then two coats of two part polyurethane which I now understand is obtainable also water based, a great asset. With matte finishes I have walked over decks 7 years without need to re-paint. Furthermore all my wooden kayaks are painted that way also in the hulls and I had only to touch up scratches. Forget fiberglass skins unless they are at least 1/8 of an inch thick or set under vacuum, they renovate the myth of Achilles, but with hundreds of heels.

### Fred Goldfarb

November 8, 2010

I had a 25 for a number of years, sailing out of City Island, NY. It had a cuddy extension over part of the cockpit seats, making a small place to stretch out, put a cooler, etc. Over the years I fixed the port ama fwd bulkhead, made new cross arms for the port forward ama, reinforced the cuddy, and when the original oversized wood mast broke due to rot by the spreaders (the mast was glassed, hence being unable to spot the rot beforehand), I designed and built a smaller, lighter one. Longest cruise I took on "Flying Cloud" was 3 weeks, on LI Sound, up the Connecticut River to Hamburg Cove and Essex, off to Block Island for a few days, then back to CI. I generally left the outboard in my club locker ashore, as the boat sailed wonderfully, in nearly any breeze, accelerated like a sports car, and turned so fast you'd be knocked off your feet if you weren't ready. I loved sailing it while sailing on an ama using a very long tiller extension, watching my own boat sail with me on it!

It was generally a very easy boat to own, and even easier to sail.

### Tom Schultz

November 14, 2010

I have a 26' Cross Tri that was built in 1986 and have never had problems with glass/epoxy over lplywood except where I put a screw into it and forgot to reset it with epoxy after initially putting it in. The rot spread about 8" across the deck of an ama but was easy to replace. Perhaps the fact that it is coated ALL OVER with epoxy keeps the wood from moving around-no moisture changes.

### John Hulburd

April 2, 2013

I owned and rebuilt a 25 Searunner, which I bought in Mexico and brought up to Puget Sound after sailing the Sea of Cortez (they are not just "day sailers"). The original builder coated everything with (too much) epoxy, and still the decks cracked like crazy (fir plywood). Maybe if Brunzeel or other fine marine plywood is used the galss can be skipped, but if I hadn't stripped that boat and fiberglassed it with 6 oz. cloth (doubled at edges and 3 layers below waterline), it would have rotted away long ago, like so many plywood multihulls. I now own an F-27, but that Searunner was the best bang for the buck I'll ever get. They are terrifically seaworthy, pretty, fun boats. One of Jim Browns best.

### Helen Patchett

March 13, 2014

Dear all present and past 25 Searunner owners, I am currently looking at buying a much loved, but in need of some serious TLC, Searunner 25. I am wondering if anyone has pictures of their cabins. Some photos would help give me some inspiration for maintenance ideas. It is a sound boat on the outside, but internally, it could do with more than a little lick of paint. Thanks!

### Neil Kahn

February 27, 2015

I've had a 25 Searunner for about 6 years now. She was built in Costa Rica in 1979.

The centerboard had been removed and a keel glued in. I gutted her and replaced the centerboard with plans purchased from Marples. I also expanded the cockpit to maximum size as I only use as a day sailor for commercial tourism purposes. I have installed nets from bow to stern and this makes her a huge boat.

I had a few problems with the deck on the amas in front of the hatch but have replaced the wood with synthetic honeycomb stuff covered with cloth using epoxy.

She is a dream to sail and stays on the hook year round down here in Costa Rica.

You can see pics on our website or facebook pages. <http://www.kayakjaco.com> facebook/kayakjaco.

Neil Kahn

### Small Tri Guy

February 27, 2015

Hi Neil,

Great to meet you. Love the boat! Your Searunner 25 looks terrific. Now I know where to go for a sailing trip when my family vacations in Costa Rica :-)

# Vintage Ad of Lively 28 Trimaran "Sparkle" Model

November 1, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Hartley Boats, Hartley Lively Trimaran, Hartley Sparkle Trimaran, Hartley trimaran

## Comments

**Kim Stephenson**

November 1, 2010

I have just rebuild a Sparkle 28 . I am interested if there are any Lively/sparkles still in existance.

I know Kevin is building a 28 from scratch in South Africa and so far there has been one for sale in I think Australia. other than that. not many left.

If any one has any knowledge of any still going I ould love to hear from them.

Kim In east coast UK

**Emma Soley**

July 29, 2020

Great story. I live on a 35' Hartley Lively. My partner has owned it for 21 years and lived on board the whole time in QLD Australia. I have only seen one other lively and one sparkle in our time cruising.

**Trevor**

April 7, 2021

Great story! I have a sparkle in Cairns Queensland. I just ripped out the manky 40 year old interior and am rebuilding it. Can't wait to get her in the water!

**Geoffrey Willam Lang**

April 8, 2021

Thanks for sharing , great story, would love to read the full blown version if you get to write it .I also live in Queensland , on an island in Moreton Bay , I was gifted an incomplete Lively that a friend started 20 years ago although 90 percent complete was not interesting in finishing so I've been putting finishing touches over the last couple of years, hopefully it'll be in the the water this Christmas

**Joao J Rego**

September 30, 2021

Hi

I'm restoring a Hartley Lively 35 in NSW Sidney ,I believe she was built in Queensland ,name Matilda .

# Introducing a Fuel Efficient Power Trimaran

November 5, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: fuel efficient motorboat, fuel efficient trimaran, power trimaran, trimaran motorboat, trimaran powerboat

## Comments

**Fred Goldfarb**

November 8, 2010

This reminds me of photos I saw only two years ago of a few naval tris now being introduced by the US and several other nations. Crews are minimal, speeds are very high, fuel efficiency is terrific, and they need less weaponry since they can "get in/get out" of most situations extremely fast.

**brad wilcox**

December 22, 2012

Hi, cool design. Wondering if you've had any luck with the foils. I've had similar ideas.

I built a 32' power cat, with a 50 hp outboard. The center fairing hull which the outboard mounts to..... Recently I added 12" of draft, immersing the 13' hull, 18" wide, so the outboard shaft doesn't part its own water (seemed to be a source of drag). Though it has many advantages, speed remains the same. 15knots cruising, 18-20 downhill....

-Brad

A little write up here.....

<http://www.navagear.com/2011/09/27/morro-bays-quirky-power-catamaran-turns-heads/>

**Tom Triglav**

February 19, 2015

Hi

Terrific attempt at making a powered passenger trimaran. On an experimental prototype I would have liked to see everything adjustable and then check my fuel economy figures at different weights. It appears that you are actually planing here in the picture with the outriggers are not doing too much except supporting you on one side. I would have liked to be able to drop them a little bit and try to completely cancel out the wake from your bow wave. It seems also they need to be lowered a little bit. In big waves you want to cut through them rather than bounce up and down. I am working on a design where you can swing the outriggers outward for sailing then backwards for power. That way you have a nice sailboat for the relaxing days and when you want to go somewhere quickly you can reconfigure the trimaran for power. I admire your courage and your speed that you built it. I am still thinking about my design. Maybe you can just add a little bit to the bottom of your outriggers and see what that will do. I think that if you look at some military designs the black line is at the water line of the outriggers so that they are always partially submerged. I think that will give you more stability and even better fuel economy. Looks real sharp.

**Pedro**

May 10, 2015

Great design! I was wondering if this trimaran could be configured for kite sailing?

Construction seems very light at 250 pounds.

Is this construction made of marine plywood and fiberglass?

Do you have plans? Are they for sale?

This little trimaran has style!

**Bryan Debou**

October 7, 2015

Yesterday I saw a very small powered catamaran come out of Friday Harbor, San Juan Island. It had 20 HP Yamaha outboards on each hull & looked to be travelling at well over 20 knots with a ride as smooth as glass. I assume it was foil assisted. Does anyone have any more information on this vessel? I'm thinking Brandon Davis from Turn Point Design must be involved. Love to get more info, and find out if this vessel is commercially available or just at the prototype stage.

**Dan**

October 2, 2016

Bryan - you were most likely seeing the Wood's Design Skoota 28. It is a proven concept. Gets great fuel economy and I want one!

**Nige Oswald**

June 28, 2017

If anyone is still reading this thread - Bryan, that was this/my boat. We made a number of mods over a few years. If you wanted to chat about it, I may built another version soon. Feel free to call up Brandon at Turn Point Design to talk about it too.

We are working on some kits but this tri is a very simple flat panel build too that could be completed at home or by a small builder.

**Nigel Oswald**

June 28, 2017

Sorry - I misread and you were talking about the cat. That is still a Turn Point Design boat, was Brandon's but I've had it up in Friday Harbor a lot and its up here permanently now. It is foil assisted. We are working on a kit version of the cat. Give Brandon a call and chat about it.

**João Alberto A. de Campos**

July 2, 2017

Hello, I'm from Brazil and your project is very good to be done here, due to its size and cost. I would like to know if this project is available for sale, for amateur construction in resin and fiber plywood. I really liked it and would like to get to know him better. From now on I am very grateful.

**Bob Hauser**

July 3, 2017

Bryan, I saw a small, 21 ft? Kurt Hughes cat in Friday harbour in May. Did not see the motors, but this may have been the one you saw.

**Nigel Oswald**

August 21, 2017

Joao,

Thanks for the comment, I am not sure if I can post phone numbers or email addresses here but I'll try. If anyone is interested, we are producing a kit version of the catamaran mentioned above and are looking at something similar for the Tri.

Send me an email on ioi.nige AT iointegration.com or my cell - 415 370 5755.

Thanks

Nige

**Tom Christie**

February 10, 2018

Nige,

I just left you a message with my phone number.

Hope to hear back from you soon.

-Tom

**Anthony d@vis**

October 11, 2020

Building one that u row

**Small Tri Guy**

October 11, 2020

Send us some pics Anthony



# Jim Brown Audio Interview – AMONG THE MULTIHULLS Memoir

November 8, 2010

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: Among the Multihulls, Jim Brown, Jim Brown book, Jim Brown Memoir, Jim Brown Multihulls, Jim Brown Searunner

No Comments

# European Sailing in the Latin Lover Trimaran

November 15, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Latin Lover Trimaran, Mediterranean trimaran, Rive Evasion, Rive Evasion trimaran, tricat, tricat trimaran

## Comments

**Carlos**

November 20, 2010

I like the concept but when looking at the pictures the boat looks like it has very little freeboard and looks like is squating. I wonder if having higher displacement hulls would help in performance

# Magnum Trimaran Sailing, Rigging & Setup Videos

November 20, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Magnum trimaran videos, Magnum trimarans

No Comments

# Windrider Trimarans – Audio Interview with Dean Sanberg

November 22, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: Dean Sanberg, Windrider Trimarans

## Comments

**Kim Haubert**

December 18, 2010

Hey Dean

Finally got around to your interview. Many topics covered very well. For those who listened and got your interest, come on over to the forum started and run by WindRider enthusiasts.

WindRiderforum.com

I been meaning to get back into fishing and your comments on that sure got the bug lit up. I wonder how it floats with the amas pulled in? Would make it easy to get into the small creeks off the bay. Good Q for the forum.

Kim

**Stephen**

July 6, 2011

I had been smitten by the Performance Small Trimarans, as a dinghy racer, and trappese rigged catamarans, as well as collegiate double hand 420's and international 470's. But I tell you just listening to this recording makes so much sense, that as we mature our backs start to give us trouble. My practical side agreed completely to the discussion as to the sit down selling point. And be comfortable inside rather than trapeseeing or hiking way out over the side was the best part of the Windrider's feature. Fishing was the second, as I enjoyed Stripper fishing as a youngster, but had to wade far out to cast deep. I think the fishing aspect Jim Broun had intended for this is spot on. I just recently purchased, and am all set with heading out to fish the Plum Island area, that I never could do in a daggerboard wetboat ever. Even more makes sense about custom outfitting this great small trimaran. I just today discussed with Dean a ECO Freindly Propane powered outboard I re-engineered from a trimmer, for such coastal low breese situations, or with the sail furled up, to do fishing with no wind. The Forum has a post to this effect, about motors to use, for which I made a post to. I got off the phone with Dean and had a smile ear to ear, as he completely agreed, the outdrive would certainly lighten the Windrider experience. I right away set out to contact the motor's maker, a Marine Products Manufacturer, and the prototype machine shop, for the mount I developed. So yes Dean is correct in the fact that this trimaran instills alot of creative customizations, as it gave me a passion to do. I couldn't believe my ears listening to Dean twice in a day as to the vision of Windrider, since his aquisition. I am on board!

Asymbadsailorman I am!

# Canadian Somersault 26 Trimaran Restored & Sailing

November 23, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Dick Newick trimaran, Somersault 26 trimaran

## Comments

**Mitchell Hay**

November 26, 2010

Hi Joe and Bonjour Pierre,

Thanks for the update on your Somersault.

Re: the ama breakage- I thought I read that Newick felt the aka failure was caused by cable connecting the aka to the main hull. Was that incorrect?

If you get to Lake Champlain, Pierre, let me know! I am intimidated by St. Laurent!

Blessings,

Mitchell Hay

**Pierre Bourgault**

July 17, 2011

At Mitchell Hay.

I respect Dick Newick, I repaired the ama, and i sailed the boat with the under cable more slack . But i assure that it would be dangerous to sail this boat on St-Laurent river, heavy wheather, deep wave,,,I juste arrive to sail up and down fjord Saguenay river, 25 knot, close wind, this baot is very performant.

**klaas parrel**

April 29, 2012

I have owned a somersault 26 from 1989 till 2002 in curacao.

sailed her in the Carribean in avg force 3-6 winds.

Now il have her in the Netherlands and restoration is 90 % finished.

I wonder if any owner could send me a picture of an engine mount that he uses on her, since while in Curacao I never used an engine as the wind always blows , ind the factory- provided engine mount disappeared...

She is a sweet boat , have owned F 27 ; and Dragonfly 920 but liked the somersault

best....

**john smolenski**

April 23, 2015

Love your boat. I'm shopping for a small tri and the outrigger 26 and corsair f24 mark 1 are on my short list. I'd be interested in hearing the amount of time it takes to set up/ tear down at the beginning/end of each season. Can two people handle this or does it take more

# Muffolo Trimaran Sailing & Available for Charter in Italy

November 30, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Italian trimaran, Kurt Hughes Multihull, Kurt Hughes trimaran, Muffolo trimaran

## Comments

**Paul**

September 14, 2018

Are any muffolos for sale anywhere.

**Rich Formo**

November 28, 2022

I built a 24 foot Piver trimaran and sailed to Mexico. Any others. With info?

# Homebuilt Sport Trimaran Update

December 3, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Dragonfly 14 trimaran, homebuilt fiberglass trimaran, Homebuilt Sport trimaran, Homebuilt Trimaran, Sport trimaran

## Comments

**Peter Simons**

December 6, 2010

Hi Lance

Congratulations a truly remarkable project – proudly south african too. Will be following your sea trials with great interest. Whereabouts are u located in the Cape as I would love to see it in the flesh. I sail on Midmar dam & with my brother out of Durban.

I hope that u will be marketing it – should get lots of takers.

Cheers

Peter

**Lance McIntosh**

December 7, 2010

Hi Peter.

I am in Table View and sail at the Milnerton Aquatic Club (MAC). I have shaped and made all the molds with the view of building a few boats from the mold. All depends on performance. May require some tweaking after sea trials. Hoping to have a great local boat at affordable price for a couple of takers. I grew up in Durban and sailing at Midmar, lots of great memories there.

Sail on

LANCE

**Peter Vinnicombe**

January 7, 2011

Great. Thanks for the response. Your boat really does look good. I spent the week between Christmas and New Year's at Midmar as my son (12) was sailing the RS Tera provincial regatta. Having one of your trimarans there would have been such a bonus to go out and watch the racing. Regards, Peter.

**Frans Vanleeuwen**

January 24, 2011

Hi Lance,

Been following your work on the dragonfly 14 and it looks amazing!  
how much do the floats and vaca weigh each? and how tall is your rig?

hopefully you will shoot some video when you're on the water

**Pete Bannock**

February 25, 2012

Hi Lance,

How has the dragonfly 14 turned out? Do you have performance videos & will you be going into production.

Kind regards,

Pete

# On Building a Woods' Strike 16 Trimaran

December 8, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Richard Woods trimaran, Strike 16 Trimaran, Strike trimaran

## Comments

### **Richard Woods**

December 10, 2010

I was pleased to see that Carlos is getting on well with his Strike 16. My website has photos of another builders boat who has now nearly completed his main hull, despite building outside in the snow.

Clearly not having a daggerboard case in the main hull makes life a lot easier, both when building and also when sailing the boat.

I have been sailing the larger Strike 18 for two seasons and have been happy with the windward performance. Yes, our boat does have daggerboards, but they are very small and the hulls are round bilge. So I doubt if they are much better leeway preventers than a Veed hull would be

The ideal outriggers for the Strike 16 are my Quattro 14 hulls. These are deep V with small skegs. I would suggest that builders using say a Prindle beach cat hulls fit a similar small skeg (plywood glassed to the hull) to the hulls.

I also suggest for those sailing in rough water that they fit either a bilge pump or self bailers. The self bailers are probably best fitted in the hull sides rather than in the bottom (where they would be prone to damage). Even though they won't then suck out all the water

I hope that answers Carlos' questions

Richard Woods of Woods Designs

### **Dave Shatwell**

April 10, 2011

Hi Richard

I noted your comments about the self bailers for Strike 16. Where we sail the Pixie (which will become the Strike 16 amas) the winds are not very strong but once out of the bay we are in the Pacific swell. If I fit bailers I will have to buy them now from West Marine in Miami as a friend is coming from there this month. Do you think 2 Anderson bailers (\$145 each!) fitted to the hull sides just fwd of bulkhead 5 would do the job?

Regards Dave



# Trinado Trimaran Molds for Sale

December 13, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: humdinger trimaran, Russell Brown, Trinado trimaran

## Comments

**Chris Jauer**

December 15, 2010

I admired this boat when it was first announced for sale, but like a Ferrari it was priced waaay out there. It would be interesting to see how this concept could be modified for cheaper construction and/or compromised for slightly less austere creature comfort ( OK, I'm older....).

An undoubted pinnacle of multihull yacht design, it would be interesting to see how it's design envelope could be modified with price and comfort in mind.

Still, its very aptly named!

# Flying On a Windrider Rave Trimaran

December 17, 2010

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Rave trimaran, Windrider Rave, Windrider Rave Trimaran, windrider trimaran

## Comments

### **Dave Allison**

December 18, 2010

I've been a Rave owner/sailor/flyer since 2005. Every small boat enthusiast should have the chance to tri one of these at least once!

### **André H.**

December 19, 2010

Bonjour M. Pouille,

Par l'intermédiaire du site Windrider Yacht Club – Index j'ai vu votre vidéo tournée par M. Cal Landau. Quel délice ! J'y vois deux "jeunes" en plein bonheur. Et la musique... parfois je trouve exagéré qu'on dise de la musique qu'elle est tout, sauf que dans ce cas...

Au plaisir

Du Québec au Canada, dans la neige en ski cerf-volant pour jouer avec le vent.

### **Wade Tarzia**

December 20, 2010

They are fascinating boats, who wouldn't want a ride on one of those (and to make some runs at the jet-skis) but yes, do watch those foils. I saw one at New Haven where I sail my outrigger. It took almost an hour to assemble, so arrive early (but same thing noticed for a Nacra). The guy took off and was out of sight very soon; he came back very soon too with a snapped off foil; he hit a sand bar at high speed. Then it didn't seem so bad cruising over the bars and rocks two feet under my board at 6 knots. Watch the foils! Very expensive welding repairs.

### **Stefano**

December 23, 2010

Hi guys. One is at my sailing club. Unless you have at least 15 steady knots, the boat sits on the water like a duck. On the other hand, the passenger in the front gets buckets full of water right in his/her face. If the temperature gets really hot, the plastic tends to become soft, and dragging it in and out of the water is a chore. The owner was an enthusiast at first, then he lost three girl friends to it and now the tri is rarely even used.

Naahh not my piece of cake.

### **Greatketch33**

August 21, 2014

I foil on my Rave. The experience one receives when one foils is a memory that one shall never forget. Feeling the surge as the Rave jolts forward like a thoroughbred out of the gate, the wind blowing past your ears, sitting high above the water as the Rave hungers for more water surface; knowing that your traveling in a place that almost existing between air and water alone, where two fluid and dynamically atmospheres meet, and finally the feeling of success one gains by controlling a technical well designed machine. At such time does one understands what it means to be pilot on water.

Experience life! Foil.

# On Building and Sailing a Seaclipper 16 Trimaran

December 20, 2010

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: John Marples, Marples trimaran, Seaclipper 16 trimaran, small trimaran

## Comments

**pacman**

April 21, 2012

Hey gerry, why not build a strike 16 hull and use the amas you have already so you get some protection and comfort.

**Alexander**

November 9, 2012

Hi, Mister Gerry,

I have a few Seaclipper questions. Could you e-mail me at

alexanderlightbody at hotmail dot com?

Congratulations on your beautiful and FAST little boat.

Alexander

Tucson

# Hobie Mirage Adventure Island Tandem Trimaran Review

January 4, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Adventure Island Trimaran, Hobie Mirage Adventure Island Tandem Trimaran, Hobie Mirage trimaran

No Comments

# F-22 Trimaran Production Update from Farrier Marine

January 8, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: F-22 trimaran, Farrier F-22 trimaran, Farrier Folding System

## Comments

**Tom**

June 7, 2011

Are there boats like this for sale in the US?

I love this design.

Tom

**Kent Kilbourne**

June 24, 2011

I also would like to know when we can place an order for the F-22 in the US??

**Small Tri Guy**

June 26, 2011

The best way to find out would be to Contact Mr. Farrier and see if he has a US rep.

**Dan**

July 6, 2011

Whats the status on the F-22, any forecast when the beginning assembly-line production might start?

thanks...

**Ian Margo**

September 28, 2011

When will the kit be available? I live in Toulouse in France. At what price?

The complete boat? What price in euros?

I really like the look of the boat. Ian M

# Nicky Cruz Explorer Trimaran Still Taking Shape

January 12, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Graeme Delaveau, Nicky Cruz Explorer, Nicky Cruz trimaran

## Comments

**Michel de Wilde**

September 14, 2011

i am looking for a tailorable trimaran design that is affordable and can be used for a couple of guys three max to go out fishing and speardiving every weekend. your design looks very interesting to me how much do you think the boat would have cost you material wise to the completed stage? and do you think it would be possible to modify the transom for a 15 hp outboard?

with fuel prices rising my friends and i need a boat that uses minimal fuel and is stable in open waters we normally dont go out if the wind is more than 20 to 25 knots.

i would love to see photos of the completed boat many thanks and hope you get much pleasure from the boat you built

**Small Tri Guy**

September 14, 2011

Hi Michel,

The designer, Graeme Delaveau, told me a couple years ago that he thought the boat could be built for about \$10,000 IF the builder is VERY FRUGAL with regards to the purchasing of their building materials and can get some inexpensive help with the welding together of the pieces that will be used to fabricate the aka folding system. That probably doesn't include the rigging though. But all in all, that would still be relatively inexpensive for a brand new trailerable trimaran featuring a large cockpit and cabin. More information about this design can be found in the book "More Small Trimarans."

# Triak Trimaran Kayak Interview in Annapolis

January 17, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: triak, Triak trimaran, TRIAK Trimaran Kayak

## Comments

**philip**

August 2, 2012

What is the time between order and delivery? What are shipping charges to NYC?

# Dragonfly 14 Trimaran Finally Sailing

January 25, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Dragonfly 14 trimaran, trimaran skiff

## Comments

**Lance McIntosh**

January 25, 2011

Hi guys,

Thank for all the encouragment and complements.

It is sailing well, even with two people. I do need to add half stays for extra mast support in the strong winds as the swide tay supports don't give enough back support. I have tested a small screecher and she pulls well. Next step is to have a new full screecher and main sail made by North Sails. Yes I do intend building four od five more for local sale!

Will keep you all informed.

For those of you who are building your own, KEEP GOING!

LANCE — lanceconnections AT telkomsa.net

**Kevin Grobler**

January 26, 2011

Hi Lance

Boat looks good you must be glad to finally be on the water,I also live in Tableveiw and am currently building a much larger Tri still have a way to go though.

Enjoy the sailing

Kevin

**Tim**

April 27, 2012

Lance I'm wanting to get or make a screecher for my Hobie Al. Do you have any recommendations for a sail weight or where to get smaller screechers? Or a good place to buy sail fabric as I might just make one.



# Trailerable Power Trimarans

January 31, 2011

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Delta 7 Trimaran, Delta 8 trimaran, power trimaran, trimaran powerboat

## Comments

**Rudy Mallonee**

September 23, 2022

Hi. Have been thinking of a small trailerable liveaboard trimaran full time , months or at least a few weeks.

Your delta 8 looked like a decent design.

Are familiar with Crusoeecraft trimaran from Australia? An 18' expedition tri. I envision it as a 26' with small cabin or even the boomtent if suitable head/shower was designed into it.

As a designer you may have a few ideas.

Thanks

Rudy

# Solway Dory Trimaran Sailing Canoes Videos

February 7, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: shearwater, solway dory, trimaran canoe, trimaran sailing canoe

## Comments

**Dave Bursnall**

February 13, 2011

Well done Brian publishing these videos, great to see them.

Dave B

Cymru (Wales)

# Uncovering the NINJA SPIDER Trimaran Magic Box

February 23, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Ninja Spider trimaran, Ninja trimaran, SMG Multihull

## Comments

**Patrick Gallais**

February 26, 2011

I have some concern about the words planing and dynamic buoyancy used there (dynamic lift would be more appropriate).

Long slim hulls with beam to length 1/10 to 1/20 are not planing one and provide very little dynamic lift. They are displacement hulls, relying mostly on buoyancy, however very performing as they have very low wave resistance.

You need beam length ratio closer to 1/5 to get planing

**ian**

March 3, 2011

In reading this and other posts both on this site and elsewhere regarding "planing" trimarans, it seems that too much attention gets paid to technicalities and not enough to the realities of the situation, which is that if a displacement sailboat can exceed its theoretical hull speed and even make time over ground in excess of the true wind speed- something that long, slim hulled cats and tris do with some regularity- does it really matter if it is technically on a plane or not?

**Steve**

April 13, 2011

Yes, it does matter. Don't say planing if it's not planing. I agree with Patrick. Sailboats are technical in nature and we should use correct language when describing their operation. It's like calling a wrench a screw driver. I dislike hyperbole in advertising. I don't like the part about acceleration making the heart beat faster. Any acceleration is always exciting, whether its this boat, another trimaran, a mono hull or a bicycle. I know hyperbole is the way of marketing types, but we don't have to like.

**Steve**

April 13, 2011

Regardless of any hyperbole, it does look like a very cool and fast trimaran. Tell me how fast it goes in ten knots of wind, and light and easy it is to handle. That would get me excited. If it was reasonably priced, I would get even more excited.

**Thom D**

July 5, 2013

I'm with ian. Hydrodynamic lift (planing) isn't as important as sailing fast. So if the boat weighs 200 pounds (400 with someone on it), it already makes very small waves that don't take much power to go past the displacement hull form drag caused by the waves created by moving through the water. If you want to plane, get a Moth or a sailboard!! Give me a trimaran, thank you very much.

**barry arnison**

February 26, 2014

need a way of contacting ninja tri but hitting a brick wall. need to try one before buying.

**Small Tri Guy**

February 26, 2014

Hi Barry,

Wish I could be of more help here. The only contact info I have is what you will find on their contact webpage at <http://www.sail-the-difference.com/index.php?id=10>

**Stefano**

March 8, 2014

To Barry Arnison.

The latest video posted - 2014 - ( google Ninja spider on you tube) has an adress at the end of the video: the guy is selling two boats, one of them used, professional molds and rights to build.

Seemingly he was not able to sell much of his truly attractive idea, but it probably needs a better marketing structure. To me this thing is more attractive than other small tris of wide success.

**Small Tri Guy**

March 8, 2014

Stefano,

Thanks so much for letting us know about this. I've posted your comment as a full update at <http://smalltrimarans.com/blog/?p=11210>

**Jean-Yves de Champlain**

January 13, 2015

I am from Quebec Canada, do you have any dealer in Canada, if so where.

If not , about USA dealer.

Thank you for your time

Jean-Yves

**Small Tri Guy**

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

January 13, 2015

Hi Jean-Yves,

Be sure to check out the updated Ninja post at <http://smalltrimarans.com/blog/?p=11210>

# Elan Trimaran at the Annapolis Boat Show

February 28, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Elan trimaran, John Elan, sailelan

No Comments

# Inflatable Trimaran "Energy Diet" Crosses Indian Ocean

March 7, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Energy Diet trimaran, inflatable trimaran, Russian trimaran

No Comments

# A Few Trimarans at the 2011 Everglades Challenge

March 14, 2011

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

## Comments

**Wade Tarzia**

March 22, 2011

I'm glad I appeared in some photos of the EC since I had no time to take many myself! I am the guy with the trimaran ("Short Dragon") with the big yellow inflatable amas and the cat-ketch rig. You can buy these excellent amas and others at the store link at <http://www.watertribe.com>, though they are not cheap (they are comparable to a good quality inflatable kayak, which makes some sense). I thought it was funny the caption read "the boat must be light" because I thought I had a lot of trouble hauling it down the beach, but everything is relative. I found that the "spin the boat method" you saw with the boat "Mullet" dug huge piles of sand up, so then I just hauled the boat straight down after a short spin-struggle. The center hull is way too heavy, actually. As a rank amateur, I over-built it with too many stringers and too much glass and epoxy, a typical mistake. The boat seems to move OK because even a small sail rig can move a skinny hull, which is the joy of a small trimaran! — WT

**Tom Ray**

April 9, 2011

Thanks for solving the mystery of where you got those amas, Wade. I have a couple of other pictures of you that I did not use in the tropicalboating.com article. Email me if you want them.

# SIZZOR Trimaran at the Everglades Challenge

March 16, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Everglades Challenge, SIZZOR trimaran, Tridarka Raider

## Comments

### **Randy Smyth**

March 22, 2011

I'm happy to see your flattering description of the Sizzor.

I actually designed and built it for the 1200mi Ultimate Challenge. This is a event like the Everglades Challenge, is put on by Watertribe. It goes around Florida from St. Petersburg via the 300 mile Everglades Challenge route to Key Largo then up to the Atlantic Ocean to the Georgia Boarder, up the St. Mary's river for 90 miles then 40 miles of portage then down the long Swanee River back to St. Petersburg. Next year is the next Untimate Challenge.

Sizzor offers plenty of speed but it also is an extremely dry ride and very comfortable. When I'm sitting at the end of the hiking rack I am over 2 feet above the waves. For the 1200mi. race it has an autopilot that can operate when I nap in the comfortable hammock tampline at reduced speed.

In this years Everglades Challenge the conditions were favorable for the 2 man Olympic Tornado Catamaran which excells upwind in larger waves. Thus, I was especially focused on a good start, no stops, and no sleep for the 41 hour upwind marathon. My only regret is that with such a determined attitude for winning, I was unable to stop and enjoy the beautiful everglades adventure. Perhaps my girlfriend, Lorrie waiting at the finish kept me awake and focused???

### **Dan T**

March 22, 2011

Did anyone get that on video? Randy ran into the water holding it like a paper airplane, jumped on and was off before his feet touched the water... ok it was early but that sums up the <20 seconds it took him.

It was my first time watching the Everglades Challenge take off and I will be back again. Hands down, one of the most impressive displays I have seen in my life.

### **Dan T**

March 23, 2011

Found it, Boatflix on youtube caught it. [http://www.youtube.com/watch?v=yct0Bmp1Zvl&feature=player\\_embedded#at=164](http://www.youtube.com/watch?v=yct0Bmp1Zvl&feature=player_embedded#at=164)

### **Dan T**

March 23, 2011

I was a little off on the time, it was 10 secs. 0.55 to 1.05

### **Mike Barnett**

March 25, 2011

I think Randy and I had the two ends of the trimaran (and competition mindset) spectrum pretty well covered between Sizzor and Clarity. And to be honest, I'm equally enamored of both boats!

### **Tom Ray**

April 9, 2011

Yeah, I'm Boatflix on youtube and I barely caught it! I went to the start mostly to see Sizzor, and was not really as successful in that as I wanted to be. Gotta get up earlier next time!

### **John Ward**

August 7, 2016

Anyone interested in a mint condition Tridarka Raider?

Have one for sale.



# New Adventures in a Classic Sailbird Trimaran

March 21, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: sailbird trimaran

## Comments

### Stefano

March 22, 2011

Hi...

I'm changing again my home built trimaran and it will come very close to this sailbird of yours in appearance and intended use. Could you give us please some measures of the boat? Displacement light and loaded, sail surface and plan, LOA, BOA, cross beams water clearance, amas volume etc...

I think you were quite lucky not to find schedule 10 cross beams, after all 7 pounds is a little loss versus a much greater resistance. Just make shure the rest holds together where the cross beams connect to the main hull since over engineering one component may result in failure of other parts.

Post some more pics with more light if you have them please.

### Mike Barnett

March 23, 2011

Stefano,

Most of the answers to your questions can be found at my blog, and there are pictures there with more light, too! But here's some rough figures:

LOA - 18' (19'6" with bow sprit)

BOA - 11'6"

DISP EMPTY - 500

DISP CRUISING - (2 people and gear/provisions for a week) @1150

SAIL AREA - 102 Custom Square Top Main (124 for original main), 58 Jib

DRAFT - 10"/40"

AKA CLEARANCE @ 10"

AMA FLOTATION @450-500 LBS (LOW VOLUME, BUT ADEQUATE)

Measurements are estimates (I don't WANT to know how much all the stuff we carried really weighed, but next year it'll be a LOT less!)

Glad you found the article!

Mike Barnett

**michael hobson007@gmail**

July 1, 2012

Would love my to have my S Bird again. Sailed mine on Austin, Texas area lakes and the Gulf of Mexico years ago.

### Clayton west

March 28, 2013

I bought a sailbird 18 new from Coco Beach around 1975. Loved it and had great fun with it. I think I paid \$3200 including sails and trailer. I have the original 11 by 18 drawing of the boat. If any of you owners would like a copy. Let me know.

WHAT A GREAT BOAT!!! I wish I still had one.

### patrick mcconaghy

April 9, 2013

Hello,

I just bought a 18ft aquadyne sailbird. The hulls have some damage that needs repair before we can it out. We are looking forward to our maiden voyage.

Could you please send me a copy of your drawings?

Thanks,

Monica & Patrick McConaghy

### roy edwards

January 13, 2014

Mike,

I am selling Big Red. Not sure if you know anyone, but thought I would pass it along. Might also split off my race sails if you are interested.

Roy

### Anthony

March 3, 2014

I picked up a Sailbird last year in Miami. It was converted to a flats boat with a 25 Johnson. After removing all the chickens, yes chickens, i hauled it back to Lakeland for repairs. So far, I reglassed and gelcoated the hulls and modified the mast step to fit my Hobie 16 mast and sail. The Sailbird came with a bent mast and no sail. I want to

convert to a daggerboard also. Can you share any pics of your CB conversion?

cheers.

**Carol Kinsey**

May 23, 2015

Ahoy all,

Just found a Sailbird that had been sitting 12 years in the Maine woods, and joined. Looking for a jib or genoa (Roy? or anyone?). Does it have to have the wire luff? I like the idea leeboards.

Lots of great ideas here.

Thanks, Carol

**Carol Kinsey**

September 15, 2016

Thanks Clayton,

I would love a copy of the original drawing.

**John Schoppaul**

June 7, 2017

Hello,

Just bought a Sailbird. Working on getting it home ( 100 miles ).

Trying to design in my mind how to outfit a trailer. Narrow bunks, remove crossmembers, install shorter boards to re-attach pontoons, ect. If anyone has a picture of whatever "you" use, and or suggestions, I would be Very appreciative.

The next step would be thoroughly inspecting it. I do have some soft fiberglass spots ( expected ), but again, advice is welcome.

Looking forward to joining any group. Live in Key Largo.

**Paul Frendahl**

October 20, 2017

Just bought a Sailbird and I am in the process of fixing it up. It is in remarkably good shape except for the trampolines. Does anyone know of a place where you can buy a set of tramps? If not, I will probably make some.

I would love a copy of the drawing if still available.

**John Schoppaul**

January 10, 2018

Have had my Sailbird since June, and the restoration is well underway. The straight carbon fiber Aka's ( I imagine the original Aka's were beyond repair ) are being replaced with telescoping T6106 Aluminum. The small cracks in the hull turned out to be large areas of fiberglass being damaged. Rails, and Aka mounts, and all hardware mounts being reinforced. My experience with West systems has risen dramatically. In the process of painting the main hull. Then, flip it over and begin all the "right side up" work. I would hazard to guess April 1 being finished. TACOCAT will be a light blue.

**Bill**

April 26, 2018

Got my Tramps from San Luis Obispo in CA SLO Sails (I Think)

Need to replace my sails. Cant find specs/sizes. Also, can I use replacements from Hobie or others without making major modifications? Thanks, Bill

**Jon Grau**

June 14, 2019

I have a project Sailbird and trailer (all in relatively good condition) that I no longer have time for and would like to sell for cheap. Anyone interested can give me a call at 954-849-6694.

Thanks!

Jon Grau

Ft. Lauderdale

**Carol Kinsey**

June 15, 2019

Full for the sails are listed here: <https://www.sailrite.com/Sailbird-18-Sail-Data>

I had nice custom trampolines made by Sunrise. He was very careful to get precise measurements as they are not always symmetrical.

# Windrider 10 & Windrider 16 Coming Back Into Production

March 25, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

No Comments

# Do-It-Yourself Small Trimarans

March 28, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: diy trimarans, homebuilt small trimarans

## Comments

**ian**

March 30, 2011

Very nicely done...simplicity and function combined to create a naturally elegant form.

While obviously it's easy to get in over one's head designing boats from scratch and testing the results can be quite hazardous for someone who doesn't already know what they are doing, it's worth noting that multi's and especially tris are about as forgiving as boats come in this regard, not just due to their inherent stability and flotation but also because of their modular nature- you have some leeway (no pun intended) when a particular part needs to be re-engineered and can even have completely different configurations of amas, rigs, etc. for different conditions uses.

As for the smaller rig being a better overall option, determining sail areas and aspect ratios is somewhat counterintuitive with multis; larger and especially taller rigs reach a point of diminishing returns very quickly and with no big pendulum of a weighted keel to counteract their forces can have a far greater effect on boat motion and seahandling than adding an extra few feet to a monohull's rig does, not to mention the stresses involved when you start moving chainplates outwards to support that taller stick (I've sailed original Pivers that I thought were going to come apart from mast pumping due to hideously ill-placed standing rigging).

Many early modern tris suffered greatly from a tendency to just assume that if a rig was good for a monohull it'd be good for a trimaran, and in my opinion far too little effort has gone into developing better rig options that update the positive aspects of ancient Polynesian sail forms while taking advantage of modern materials and construction techniques....I'm not knocking the choice of bermuda rig here; they're plentiful and relatively cheap and easy to acquire but their development had nothing to do with what a multihull needs, and ultimately they hit a brick wall when the boat starts making its own wind, if they make it that far :)

**Mike Barnett**

April 1, 2011

Great stuff.... and located close to me, too! I'll be looking up Frank in the near future to see his boats, view his construction methodology, and just talk boats (and, just POSSIBLY challenge him to a race against Clarity!).

**Frank**

April 2, 2011

Thanks for taking the time to make a post, guys. I much appreciate the kind words. As I note on my site, I am very new at this, and very far from being professionally knowledgeable. Tris are indeed very forgiving, which is why I love them. I agree with Ian that tris may do best with sails specifically built for their unique characteristics — which is why I'm having a 102-sq. ft. sail made for an unstayed mast I'm making. It will be boomless so I can (a) furl it around the round aluminum mast, and (b) see how well boomless sails actually work! If not so good, I will definitely put a boom on it. As for that race, Mike, bring it on. There's no such thing as a looser in a trimaran! – Frank

**PeterB**

April 6, 2011

As someone who has sailed with Frank and watched his boats in action, I can say he knows what he is talking about. They are very user friendly boats but with quite a bit of knowledge that Frank has gleaned from reading a lot of books and experimenting he has made some boats that will really move well and look good to boot :)

I look forward to my own experimentation with a homebuilt trimaran. I recently purchased an old Hobie 18 to steal parts off of and for the trailer as well. Would love to get out on the water with Mike and Frank sometime, maybe up in Tampa Bay by the "Shadow Bay" area.

-Peter (Cleric)

**Bob**

May 20, 2011

Huge fan, we think alike. I also want to start by modifying my current Kayak, one of the small squatty 10' models, but it is just a first attempt, I've built one simple monohull from scratch, and it is really slow, but I still like it, because I made it. Anyway, what I'm not sure of is, do you have some kind of formula you use to figure out the size of the amas? Because there is a LOT of buoyancy in the kayak I have, plus I've been "blessed" with plenty of "ballast" (my doctor wouldn't consider it blessed) I don't know if that would make a difference in the size or not. I have a few home made sails, as well as a windsurfer sail, and even some larger sails from a 20' sailboat that are "retired" that I can cut down in the future. I'd love to see some drawings or plans to show more detail of what you've done, but thanks so much for sharing what you have so far.

Bob

**Frank**

May 20, 2011

Hi Bob – Thank you for your kind words. The buoyancy of the kayak / main hull is, in my view, irrelevant to the size of the amas. So is the "ballast" weight :) The main purpose of the amas is to keep the main hull as upright as possible. If you can also get them to plane, so much the better. I don't have any actual plans for what I build, as they are all just made from sketches. (Though I will soon be posting lots of detailed photos of my new planing ama design, which I absolutely love.) I am bit concerned that you'll be disappointed with a such a short main hull, but if speed's not too important, then no problem. I'm curious to know how you will attach the akas to your kayak, how much sail you intend to use, and how you will attach your mast. Please feel free to provide as much detail as you wish. I will be happy to help you get your project going in any way I can.

Take care – Frank

**JACK SPOERING**

March 12, 2012

I've been following Dr. Smoot's Small Trimaran adventures for some time now. I've said it before and I'll say it again - "If Frank ever comes out with a set of plans, we'll see his design all over ... just like Hobie Cats."

**George Reynolds**

July 12, 2012

Hi Frank: I have been admiring your designs for the past few years. I am currently welding a main hull for a Dick Newick

Tri Design using Hobie Cat Outriggers, but I want the simplest rigging possible. Your latest Crab Claw setup looks like the best I've ever seen. I'm planning something similar but bigger as my main hull will be 24 ft long. I have a piece of land in Port Charlotte & if I ever make it down would like to talk boats.

Greetings George

**Dutchy**

September 29, 2015

Hello Dr. Frank,

I'm wondering about your project about planing ama's.

Did you stop with them ? and if so: What was the reason for that.

I am asking because I have tried waterski's as amas and they did alright until they got submerged. Then drag is increasing a lot.

Kind Regards,

Do you have any experience with foils at/in/under you ama's ?

Dutchy

**John halstead**

June 22, 2017

I need this in my life! I have been looking into building my own for a while now, and this inspired me even more. Beautiful vessel!

How about sharing those plans with us haha

**Small Tri Guy**

June 22, 2017

Hi John,

Frank has indeed ... check out the post at <http://smalltrimarans.com/blog/introducing-the-slingshot-16-trimaran/> for more information about obtaining his building plans.

**anthony peter Downs**

June 3, 2020

I have also tried different volume Amas on a 10 ft tri, initially they were full v type ( as per Wharram catamarans) about 200 lbs full buoyancy. The Akas were raised above deck level and curved so that at high level of heel (for a tri) they did not cause sudden de-acceleration. but I felt the boat could have easily capsized through a pendulum effect. Larger volume Amas with now curved v section and 300 lb buoyancy were better, less heel and possibly faster. Both Amas when the boat was stationary touched the water so there was no annoying slamming or rocking. Only when sailing did one or other of the Amas leave the water. I have a single wrap around sail, aprox 80 sq ft, with a sprit boom. This give better head clearance and sail camber. I do not use centerboard or dagger board , only my paddle which is braced by a strap on the side of the main hull. After reading of your remarks about Lee boards I will be converting to this. My main hull is flat bottomed with little camber, about 20 inches wide.

**Robert VanDenBogaard**

March 19, 2021

Dr Frank i am inspired with your work i am also interested in making a trimaran. My approach is similar but different i aquired an Oday 17' daysailer and an old 16' Venture catamaran i am going to combine the two into one by a superstructure with folding outriggers . I live in central Oregon and our winds are quite fierce at times. You do fine work thank you for the inspiration.

**Pedro Diaz**

May 12, 2021

Buenas tardes deseo incursionar en la construcción de trimarán por favor indicar precio de dibujos o planos para su construcción lista de materiales e instrucción para su fabricación y montaje

Agradezco su cooperación

Saludos

Pedro

**Small Tri Guy**

May 12, 2021

Hi Pedro,

You need to go to <https://duckworks.com/frank-smoot/> and order building plans for one of Frank's designs.

# DIY Small Trimarans Q & A

April 3, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: diy trimarans, Homebuilt Trimaran, self bult trimaran, wood trimaran

## Comments

**Greg Petroski**

April 12, 2013

You have inspired me to take an old Arrow 18 ft canoe an marry it to an old Hobie 16 wish me luck.

Do you think the Hobie mast is strong enough to make akas?

Thanks Greg

# Build a Seaclipper 20 Trimaran with Jim Brown & John Marples This Summer

April 5, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Jim Brown, John Marples, Seaclipper 20 trimaran, woodenboat school

No Comments

# Ninja Spider Trimaran Capsize Test & Sailing Videos

April 11, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Ninja beach trimaran, Ninja Spider trimaran, Ninja trimaran

## Comments

### Stefano

April 11, 2011

Hi.. I built a small ply tri.. After a few capsizes I decided to fill the amas with empty plastic bottles and the rest with PU foam because the water once in, could not get out and I'd rather go for 7 more kgs than for 70 more when water filled the ama volume ( one ama roughly 70 liters).

How did you manage to make them self bailing ?

### Small Tri Guy

April 11, 2011

Hi Stefano,

If you click on the last photo and look very closely at the back of the ama, you will see a screw cap/hatch that can open up to let water out. You probably could fit small cap-hatches on your ply amas in order to achieve the same thing.

### ian

April 12, 2011

It's a bit hard to be sure from reading the text (due to what appears to be some kind of translation issue) but it appears that in the case of the Ninja tri, those inspection ports are being used to flood the ama as part of the recovery process, to overcome some of the righting moment that makes tris hard to turn back over once they've turned turtle-

"we opened the capsize hatch on one outrigger stern to float the hull, and to press it with the crew weight under water."

I may be wrong, but I think they meant to say "to sink the hull"...

it's something Stefano and others might want to consider when deciding to install permanent flotation or to permanently seal the hulls- depending on the boat, you may want to maintain the ability to flood the amas at will for this kind of recovery procedure, especially with larger boats where crew weight alone may not be enough to flip the thing over.

The ability to partially sink an ama can also be an advantage if you need to raise the opposite ama in the event of a holing or to perform needed repairs, and also when doing certain diving and salvage/rescue type operations where you want to apply all that crossarm leverage to something like a stuck anchor or a disabled swimmer and don't have enough crew weight to overcome the ama's buoyancy.

Personally I'd be freaked out to just unscrew that type of inspection cover/cap kind of thing out on the water, especially when swimming in conditions that caused a capsize in the first place...at the very least I'd want some strong leashes to keep them with the boat.

And even then, I'd consider that setup to only be partially 'self-bailing' at best...true self bailing is pretty much a hands-off deal that uses either a strategically placed venturi style fitting that sucks water out via forward boat motion and seals water out at rest with a simple gasket/check valve (the "Elvstrom bailer" is the classic one), or uses spring loaded flaps that open with water pressure to allow water to flow out of the boat when swamped (the "transom flap").

They are very common in racing dinghys (Lasers have a venturi fitting built in) and could be used not only to make small tri hulls truly self bailing, but also as part of a righting and recovery system/protocol by manually overriding the check valve aspect.

### Small Tri Guy

April 12, 2011

I think you're understanding their procedure correctly Ian. And you additional info is great!

### Watermann

July 4, 2018

Old comments but worth putting my 2 cents worth in.

Weta has a similar recovery process as the spider, they unscrew the leash retained end cap and flood the float. Then it semi bails under suction caused through the wake trough once sailing again, you then close the end cap. It may not completely empty the hull but it seems to serve it purpose, not owning a Weta I am only going on vids from online.

On my little Bazooka there is only a small 10mm drainage bung at the front and on top of the hull. No way in the world you will flood that sufficiently in a decent time frame to assist with righting, let alone drain it again!

I have however come up with a work around if ever needed. The Bazooka AMA's are quick release, so if turtled I simply release the AMA from one side and strap it to the other. It's then simply a matter of righting which is easier than a cat to do and refitting the AMA. It only takes 2 clips and a couple of short retainer straps to effect the rescue. Have had to employ this technique only once so far in difficult conditions and was more than pleased with the results.

Would be a somewhat more difficult task on a larger design boat or one with lashed on or permanently fixed AMA's. More so with a tri that has mast stays attached to the AMA's. The Bazooka has a free standing foam filled carbon fibre mast so no stay wires or ropes to tangle up in.



2/15/23, 7:38 PM

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For me in a small beach tri I think simplicity, fun and functionality trumps speed and complexity.

I truly believe that current small tri designs are scaring people away from sailing them. The Weta whilst an awesome design for more experienced sailing looks very complicated for a novice.

Meermark on the other hand with it's simple sail and seating would appeal to novice sailors, as would the Bazooka if it where still being made.

The Ninja Spider I believe falls into the more experienced sailor category.

Hey Small Tri Guy why not do an article on small beach trimarans and their complexity vs performance vs skill level?

# Trimara Trimaran in Thailand (On a Budget)

April 18, 2011

Categories: Small Tri Info - All

Tags: inexpensive trimaran, small trimaran, trimara trimaran, wood trimaran

No Comments

# Windfisher Platform for the Windrider Trimaran

April 21, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Jim Brown, windfisher, windrider trimaran, windrider windfisher

## Comments

### **Larry Whited**

June 1, 2011

What tent are you using? I really would like to make this setup for my Tridarka.

### **Small Tri Guy**

June 1, 2011

Larry, to my knowledge, it's a simple dome tent that was purchased from Wal Mart for under \$20. The exact manufacturer of tent such as this may be different in Wal Marts throughout the US.

### **Tom Rough**

January 6, 2013

Alright, alright. I'm sold, but I ain't got the scratch yet. Just bought a Hobie Tandem Island. Wife did not bug out about it and we sailed it HARD. I doubt I would have the heart to step up to a Windrider unless I practiced with the Hobie first. I'm definitely going to need the Windfisher arrangement when I step up. In the meantime, are plans available for the Windfisher deck?

### **Ed Hiestand**

March 11, 2018

I am new to the WR17 boat but this looks like a great option but cannot find any pictures or info outside this video. Any idea why this never caught on?

### **Small Tri Guy**

March 11, 2018

Hi Ed,

I am guessing that most sailors who buy "production boats" today aren't Do-It-Yourselfers when it comes to making things for the boats they purchase from a manufacturer. The same DIY spirit of yesteryear (once a common American trait) seems to have declined over the past few decades.

I'd love to see us (North Americans) get it back!

# Father of the Modern Trimaran

April 25, 2011

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Jim Brown, multihulls, Piver, trimaran father

## Comments

**Wade Tarzia**

April 26, 2011

That's one of the most compact and useful amateur videos I have ever seen. The scene of following seas chasing that trimaran was stunning.

**Carlos Solanilla**

May 4, 2011

Coincidence that I just got my library copy of "A case for the Cruising Trimaran" circa 1979 from Coconut Grove marina - now I really understand why the Searunner 34 is designed the way it is - makes so much sense. Looking forwards to read among the multihulls when it eventually arrives. The modern life trappings are polar opposite to Brown's design philosophy of an inexpensive (and GREEN) multihull for cruising.

**ian**

May 10, 2011

I see the development of modern trimarans as somewhat analogous to that of powered flight, at least in the sense that it is one of those technical problems that is only ever solved by many people's combined efforts.

And as Jim Brown astutely points out, it isn't just technical expertise that contributes to a successful solution- it's also due to the efforts of people who can generate and sustain public interest in the face of nearly overwhelming ridicule, and to the bravery of those who expose themselves to very real financial risk and physical danger because they believe something is possible when most everyone else doesn't.

It's not for nothing that like so many early aviation pioneers, Aurthur Piver's pursuit of realizing his dreams eventually cost him his life...regardless of the viability of any of his design concepts or his overall approach to promoting the type, his commitment was as absolute as it gets and he deserves nothing but respect for that.

So just to torture the aviation analogy further, if Piver = the Wright brothers, I'd nominate Jim Brown as Glen Curtiss, the first guy who really got the practicality thing sorted out and whose infectious enthusiasm was instrumental in developing the public interest that in turn helped develop the state of the art further...and Norm Cross would have to be Howard Hughes, the genius who seemingly couldn't help but make things slick and refined from a design and engineering standpoint.

Where that puts Victor Tchetchet, I don't know...I have never seen any images or drawings of his pioneering tris, or even a detailed description and I can't find any online- was his a solid design concept that suffered mostly from materials and building techniques that hadn't caught up yet, or was there some basic conceptual flaw that prevented his designs from becoming more popular, or were his boats really great and he just never got noticed, or what?

**Reuben Filsell**

May 11, 2011

Well Ian, Victor wasn't American so why should he get a place in your version of history?

**ian**

May 12, 2011

Well Reuben, I don't actually know if Victor was American or not- don't forget that a person doesn't have to have been physically born in the US to be just as American as anyone else, and I simply don't know the final disposition of his immigration/citizenship status.

Also not sure if you are taking what appears to be offense to some alleged jingoism on my part as it relates to trimaran pioneers, or aircraft pioneers, or both...I actually \*did\* consider that Victor might be analogous to someone like Otto Lillienthal or Octave Chanute, but didn't have enough info on Victor's boats to make that comparison of any value and it frankly seemed just a bit too contrived, even for me.

As for other seminal non-American tri designers from that era I may not have mentioned in comparison to non-American aviation pioneers, as an olive branch I can offer Lock Crowther as Louis Bleriot or maybe Juan De La Cierva, but not much else off the top of my head.

My point was simply to recognize a handful of the many people who not only did the early legwork that has made the modern tri possible but who did so against a number of obstacles, and made the aviation analogy in part because I think that the impact their inventions and ideas have had and will have on ocean transportation hasn't been fully realized yet and is in its own way as much of a game changer as the heavier-than-air aircraft was to air transportation...so please don't anyone misconstrue the omission of any particular person as being a deliberate snub based on mindless nationalism or some kind of historical revisionist plot...we're just talking about cool boats and celebrating those who helped make them possible and if anyone cares to discuss non-American contributors who haven't gotten their due, I welcome it.

Anyway, I was doing some more googling and actually did find a brief description of Victor's designs, coincidentally enough in another similar article celebrating early multihull designers by none other than Jim Brown-

"Tchetchet's boats were fun on Long Island Sound but they had small, short-bowed outboard floats and so tended to dive the lee bow in gusts. They were cranky in stays and did not sail well to windward."

Even more coincidentally Mr. Brown also uses the same type of aircraft pioneer analogies I did but has Woody Brown as Orville Wright, James Wharram as William Piper and Dick Newick as Chuck Yeager...I'll leave it to others to validate or invalidate those choices in a geopolitical context and will just provide a link should anyone care to

read Mr Brown's comments about still more people whose contributions helped made the modern tri what it is.

"The Barnstorming Aquabats Who Created  
The Modern Catamarans and Trimarans"

[http://outrig.org/pioneers\\_jb.html](http://outrig.org/pioneers_jb.html)

**Patrick McGrath**

September 4, 2011

I actually met and talked to Victor Chectchet.

It was on the dock of the Miramar Yacht club in the Bronx N. Y. in June 1969.

We were about to set sail in the multihull N.Y./Bermuda race and he was standing looking at "Ringo", Dave Greens Kraken 40 #1.

He was a small little old man and had tears in his eyes.

I put my arm around his shoulders and said to him "What do you think of that Victor". He replied "I have lived to see this day". He died in 1974.

# Swing-Wing Akas on Seaclipper Trimarans

May 11, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: folding trimaran, John Marples trimaran, Marples Seaclipper trimarans, swing wing trimaran, swing wing trimaran folding system

## Comments

**Wade Tarzia**

May 12, 2011

The Seaclipper 20 folding method seems to be the simplest, most rugged, and cheapest I have seen. Though I liked the telescoping tubes on the Layden/Isaac Tridarka Raider, the tubes could bind a little (and were expensive weldments), which this system solves. Elegant problem solving!

# Planning for Crusoe Craft Trimaran Adventure Vacations

May 13, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Crusoe Craft Trimaran vacation

No Comments

# Seaclipper 16 Sea Trial in Texas

May 16, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: John Marples, Seaclipper 16 trimaran

## Comments

**Eliseu Passo**

December 4, 2011

I bought a project 16 seaclipper not built yet, I bought a ready seaclipper 28 built in 1985, I would like to get help from a designer to modify the seaclipper 28, making the arms bend or shrink, or any other option to reduce the mouth to anchor. Thanks Elisha

**Small Tri Guy**

December 10, 2011

Hi Eliseu,

Contact the designer at searunner.com ... he may be able to help you.



## More Drifter Trimaran Plans Available

May 20, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Drifter trimarans, Duckworks, Gumprecht trimaran

### Comments

**Wade Tarzia**

May 20, 2011

Nice! Do you glass over that 1/8 inch plywood at all?

**ian**

May 20, 2011

I'd be interested to know more about the aka design; how they are fabricated (I assume some lamination is involved) and how the very simple unstayed design works underway as far as hull geometry and flexing goes- do the boats stay fairly stiff in that regard or are the lightweight cross beams intended to flex significantly and absorb some of the loads generated?

**Mark Gumprecht**

June 18, 2011

The whole boat is glassed with a layer of 4 oz cloth. The akas are laminated out of three layers of wood, 5/8" thick, and are designed to flex, although it's not noticeable when sailing. The unstayed mast works well. There is a little distortion of the sail when sailing to weather, from the mast bending, but it doesn't really affect the performance much. You can use removable stays for better sail shape.

# New 17-foot Trimaran Using Hobie 14 Hulls As Amas

May 25, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: 17-foot trimaran, Gallant trimaran, homemade trimaran

## Comments

**pampamia**

February 9, 2012

That' s a wonderfull boat. Measures of beam and length?. Congratulations for a simple and excelent work.

Carlos

Argentina

# Strike 18 Trimaran Racing in Canada

May 26, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Strike 18 Trimaran. Richard Woods trimaran

No Comments

## “Among the Multihulls, Volume Two” Now Published

May 27, 2011

Categories: Small Tri Info - All, Small Trimaran Audios, Small Trimaran Videos

Tags: Among the Multihulls, Jim Brown

No Comments

# Hartley-Boats' Lively 28 Trimaran Building Update

June 2, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Hartley boats Lively 28 trimaran, Lively 28 Trimaran

## Comments

**Joseh Deschamps**

August 2, 2011

Hi Kevin,

Seems a great design for coastal cruising.

When she's launched, I like to know more about Lively 28 tri behaviour particularly in short choppy seas + windward sailing.

Thanks

Cheers

Joseph

Nouméa – New Caledonia

**Kevin**

August 12, 2011

Hi Joseph

Just saw your posting forward me your email address and then I can keep you posted on when I launch the boat — probably be October-November this year if all goes well. My email kevinfarsouth AT telkomsa.net

Cheers,

Kevin

**Mike White**

April 8, 2012

I saw the pictures of your boat it looks great did you find drawings for the flip up rudder or did you experiment with it? I see you used an aluminum mast and boom are they from a production boat if so what kind and size ? I am in the process of building a lively 28. I finished the alms and I have the main hull ready to turn over. I like what you did with the cabin. I hope to have mine complete in another year or 2.

**marvin**

September 11, 2012

Kevin did you consider other building designs. I am considering a 30' jim brown searunner can you compare the two thanks marvin

**Kevin**

December 27, 2012

Hi Mike just saw your comments on my Hartley tri hows the building of your one coming on, my rudder was my own design, the rig I used was just a section that was given to me very similar to a Hobie 16 mast just much thicker wall

**Mike**

December 27, 2012

I have flipped the hull over and have finished most of the cabin. the bunk framing is complete. I am working on the galley cabinet now. I am going to fully enclose the head across from the galley area. I wished I had done the V-birth like you did yours, doing it by the plans leave a 3' opening with wasted space. between the bow and frame 1 I am closing it in for an anchor chain locker. I am keeping the top of the cabin and dodger about the same as the plans except I am using 4 5" X 14" factory windows in front and 1 window in the dodger area they will not span the bulkheads like the plans call for. I have not decided on a size yet.

**Kevin**

January 8, 2013

Hi Mike seems you have got quiet far already with your construction hope all going according to plan, we were sailing on our tri this past weekend had 2 days of great sailing with 5-6m swells and 20knt winds the boat handled very well though did get the odd splash coming in to the cockpit, am currently busy designing a hard spray dodger to go over the companion way.

**brian healy**

September 3, 2017

hi kevin I have a 28 foot hartley sparkle just wondering if you have rudder dimensions as my rudder disappeared , thankyou brian

**Geoff**

May 7, 2018

Hi Brian I have the original plans for the 28 ft lively if that's any help with your rudder problem

**Alex**

October 3, 2018

Hi!

Does/did anyone own Lively 28? I am going to build deep-V hull sailboat and I would like to ask you about this trimaran. My e-mail nikiforov(at)politpro(dot)ru

# Sailing My Old Tremolino Trimaran

June 3, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Newick trimaran, Tremolino trimaran

## Comments

**John Oliver**

July 5, 2011

I too bought a Tremolino 23 from John Olin, eventually trailed it to Belize which is ideal for sailing tri's with steady SE breezes, and shallow seas protected by the barrier reef.

There are many small cayes to cruise to, ranging from camping style to super lux resorts.

As you said, a pain in the neck to assemble, and we didn't have many ramps in those days. Then the trailer wheels rusted off, so I left her on a mooring, then she was stolen, and severely damaged before I found her.

I never have been able to repair the forward cross beam, and have tried to make a version in reinforced ply, but so far to no avail.

We'll keep at it.

jonO

**agur**

November 3, 2014

Hi,

I have been googling pretty hard – but still I have not found information whether there are any Tremolino 23 building plans available or not. If anyone has an information where I could buy those plans, please give me a hint (wetland@planet.ee

cheers

agur

**Small Tri Guy**

November 3, 2014

Hi Agur,

As you probably know, Dick Newick passed away last year. I don't know if he set up any arrangement for someone to continue selling his plans after his passing. That being said, I'll make a few inquiries and if I do find out any information I'll post it here.

**agur**

November 6, 2014

Thank you!

**Small Tri Guy**

June 23, 2015

Here is what Pat Newick (Dick's wife) recently shared with me regarding the building plans for the Tremolino (this includes all plan sets for the Tremolino, by the way)"

*"After Dick died, we combined Tremolino plans into one package. Otherwise it's too complicated for me to sort through the various versions people ask for. I haven't advertised in any formal way because I don't want to give the impression that I'm continuing Dick's business. But anyone interested may contact me at this email address – newnaut AT gmail.com ... the purchase price is now \$500 for the Tremolino pkg. – Pat Newick"*

**agur**

June 24, 2015

Hi!

Thanks for sharing!!

Although meanwhile I had to use my opportunity window for boat building (a friend offered me his garage).

I went for Wharram Tiki 21. Have been messing around with the project couple of months by now and hopefully first hull goes into 3D within several days.

But I'm pretty sure that those Tremolino plans do not stay long on the shelf. Old school classics.

Agur

**Jim Appleyard**

September 7, 2015

Any similar reviews available for the 25 foot model? Also hard to assemble from trailer? Sailing characteristics similar to 23 or improved? Thanks

**Small Tri Guy**

September 7, 2015

Hi Jim,

I haven't found any reviews for the 25 yet ... although they might exist somewhere in cyberspace and I haven't found them yet. The only info I can offer is my memory of a short conversation I had with Dick Newick where I asked him how the bigger Trem would differ from the smaller Tremolino. In a nutshell, he felt the bigger model would certainly be a better boat overall. Instead of designing a main hull to fit existing Hobie 16 hulls, which weren't ideal for use as outriggers, all 3 hulls were able to be

2/15/23, 7:38 PM

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designed to fit together using more ideal shapes and sizes from the outset. This, of course, was the opinion of the designer, prior to any one having been built yet. But Dick was probably — according to his peers — the 20th century's foremost multihull designer. (I know, I know, this opinion isn't as good as sea trials).

**Kevin Bruce Brown**

October 14, 2015

I have a 1978 Tremolino and sail it weekly best boat ever for single handed comfort and speed.

**Ken**

November 8, 2016

I recently acquired a 1983 Tremolino 22'09" we are trying to figure out the how to rig the sails and the traveler – Any help would be appreciated

# One-of-a-Kind Microship Trimaran

June 10, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Microship trimaran

## Comments

**Steve Roberts**

June 11, 2011

Thanks for the kind words, Joe!

I should mention that the price shown on Yachtworld is not cast in stone by any means... if someone comes along who fits the spirit of the boat and has the resources to "finish" it to the point of expedition-readiness, I'll be very flexible. I want to see it fulfill the crazy dreams that led to this very non-traditional design (amphibian, etc). There were a number of marine architects involved as consultants (including John Marples) and the 2-week sea trial was wonderful... but my own needs changed.

Cheers!

Steve

**Wade Tarzia**

June 11, 2011

This boat may not be extremely practical, but it is a superb example of what I call "three-dimensional philosophy of life-style"! A sculpture is worth 1000 words, etc.

**ian**

June 13, 2011

I've always admired this tri for its look of being a fully equipped hi tech racing/cruising vessel complete with dodger and radar arch, just shrunken down to a micro scale as if by magic. It's even more impressive considering that at its heart it is a fairly stock canoe hull grafted to a cannibalized hull from another boat, albeit with lots of great design and engineering and funding to go along with it.

If Steve checks back, perhaps he could answer a couple of questions-

- in the various blogs about the boat and its genesis, another Wenonah main hull is mentioned...and I dimly recall reading that at one time there were two microships of that final design...just curious about the fate of the other boat, or if it actually was completed...?

- while the listed price or even a portion of it is staggering for a boat that size, I'm sure that it is probably well below actual replacement cost considering the engineering and relatively hi tech materials involved and the fact that the whole project carries the term "thought out" to a whole new level...it's really not a normal small boat in that regard and can't be compared on that basis, but I'm just curious if Steve has a ballpark idea of what the basic, sailable vessel would have run without the extra non-sailing gear and associated engineering/integration costs?

Finally, I have always wondered if the wheels were intended to be just for launching/portaging by hand or bike or something, or if the whole boat with the wheels down is street legal for towing behind a car, or can you actually drive it around like a car using the same drives that do the marine stuff?

**Steve Roberts**

June 20, 2011

Thanks for the kind words and questions, Ian!

- Yes, there were two Microships; the second one, named Songline, was a clone of the first (but with much simpler landing gear and less finishing refinement). That is now with my ex, who worked with me on the project for 5 years and did most of the construction on her boat.

- Good question on pricing, and of course that number is crazy if all someone wants is a beach tri (even a sexy one!). I don't have any good data points, but if it were productized without landing gear, solar arrays, electric thruster, hydraulics, and other gizmology... I suspect it would be in the \$25K range, assuming quantity production and simplification. Of course, that would be a risky niche market, given the much cheaper yet excellent little boats like the Hobie Adventure Island, WindRider and its descendants, and many others that our host on this blog probably knows about. I'm a bit out of touch with this part of the industry now. That \$73K is much less than it cost to build, but more than I realistically expect to get. Make me an offer!

- The wheels were just for portaging, and are entirely passive... think "self-trailing" at human pace. I would pull it behind a motorized vehicle slowly, with great tenderness and avoidance of potholes... but with the steering system, the front wheels do not caster so even that would be a bit of a trick. They do incorporate a parking brake, via a hydraulic function that pigeon-toes the front wheels, but that is not useful when going downhill and getting out of control. We looked at the obviously desirable hack of integrating the pedals, which would have been wonderful, but with all the complexity of the deployable gear and suspension, we just couldn't see a way to do it.

Your comment about it being a magically shrunken yacht is spot-on... you should see folks in marinas when I would pull in. NEVER a problem finding a dock angel to catch lines.

Cheers!

Steve

**ian**

June 22, 2011



Hi Steve...thanks for taking the time to respond.

The \$25K figure you cite sounds about right for something offered commercially...which by my calculations and experience means maybe half that figure would be a good ballpark figure were someone to DIY, maybe less if they were extremely careful about costs and shopped smart.

I'm also guessing that with any of these tech-laden projects that the implementation costs are probably wholly different even a couple of years down the road from where you started due to the speed of advances in technology...your experimental agenda with this project (and the bike before it) seems to be such that economy and timeliness isn't as high on the priority list as it might be for the average person, but there is still a bit of a cautionary tale in the Microship story for the average guy who just wants to get a cruising boat a little bit more outfitted, a little more advanced, a little more ready...

Plenty of people whose aspirations for having a well founded cruising boat don't even begin to approach the level of preparation and capabilities you went for with this project spend years getting boats ready and in the end never go anywhere...so it's good to hear that you actually got to play with the thing before deciding to move on, and that you are at least attempting to keep that ball rolling by selecting the right kind of steward for it.

Best of luck,

Ian

# Free "Windfisher Platform" Plans for Windrider Trimarans

June 14, 2011

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: windfisher platform, windrider windfisher

## Comments

**Ernie Mizal**

February 8, 2016

Are the Windfisher platform plans still available? Can I get them from you? Thanks!

**Romen**

June 27, 2019

Where can I find the drawings ?

**Small Tri Guy**

June 27, 2019

You should be able to obtain them from Windrider

**Greg**

October 21, 2019

Apparently Windrider does not supply them anymore, where to find ??

**Allen Light**

August 10, 2020

I'm also looking for this plans. So if anyone can make the available it would be great.

**Greg Glass**

June 7, 2022

FOUND THE DIAGRAM ! <https://www.facebook.com/groups/windrider17adventures/permalink/745963919088161>

# Aquadyne Sailbird Trimaran Sailing Videos

June 15, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Aquadyne Sailbird Trimaran

## Comments

**Sam**

August 20, 2020

It is my understanding that yahoo has discontinued all groups including the aquadyne sail bird group.?

# DC-3 Trimaran Model Wins WoodenBoat Design Challenge III

June 16, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: Constant Camber, DC3 trimaran, Marples trimaran

## Comments

**Stefano**

June 17, 2011

Hi. I'm looking since a long time into ways to reduce the size of a small trimaran, a 22 ft (6.5) meters of my own design, very similar to this one with a central cockpit. Having owned a Farrier trailer tri 720 I can swear about the robustness of that system but also the heftiness and complexity: aligning 5 bolts per side into their respective threads was almost a miracle each time. I would be very suspicious of this swing wing system proposed as it looks very weak in terms of engineering especially for a tri this size. Can the topic be discussed further? what about adding a rigid strut (removable) when the beam is open.

Could you also discuss this option versus a sliding tube? Has the system been proven and for how long? and boats what size? Any suggestions to avoid structural failure also due to wood decay? (farrier ply tris had the problem of freshwater remaining in beam slots and decaying the beam seat.

thanks in advance, Stefano

**Small Tri Guy**

June 17, 2011

Hi Stefano,

This wooden swing-wing system was created for its simplicity, economy and strength. I've spoken to Jim Brown and John Marples about it several times over the past year and know that the engineering calculations indicate these beams can surely handle the stresses for this platform if they're built according to John's specifications. Seriously, other parts of the DC-3 would structurally fail (and we're talking about this happening in the sorts of extreme conditions that would destroy any kind of boat) long before its beam connective system would come apart. What you're seeing here is the model for a wooden swing wing system costing a homebuilder between \$200-\$300 to construct that is probably stronger than fabricated swing wing systems costing many thousands of dollars to produce.

**Stefano**

June 18, 2011

Good to learn... what about one specific post on trailerable tris folding systems?

Thanks for your prompt reply

**Small Tri Guy**

June 18, 2011

Here are a couple of older posts that link to articles on folding systems that can be/have been used for small trimarans ...

<http://smalltrimarans.com/blog/?p=271>

<http://smalltrimarans.com/blog/?p=277>

**Stefano**

June 20, 2011

Yes, read the whole...shivered at the description of beams flexing under floats weight. A swing wing system in wood is not even cited in the article. Only aluminum alloy (ladder, closed triangle, Farrier, and stainless steel ( dragonfly) are discussed.

I think that on an "expedition boat" this subject should leave no doubts to the perspective builder about its proven capability to bear with a certain margin of safety the involved stresses, and this is what I would like to read about really.

**Small Tri Guy**

June 20, 2011

The articles that I referred you to (above) were written before the wooden swing-wing system came out last year. Jim Brown (multihull pioneer with 50 years of real-world experience) conceived of it and John Marples (an engineer with decades of proven experience) performed the calculations and drew up the building plans for the wooden swing-wing folding system. To my knowledge, no 3rd party engineer has stepped forward and said that they doubt it will hold up under the stresses. Even though more information should be available after Woodenboat publishes the results, I have learned from John that the DC-3 beams are very heavy and are re-enforced by waterstays of synthetic (Dyneema). The waterstays will provide added support to the beams and reduce beam deflections to stabilize the rigging, which will be attached to the amas.

If I were you, I'd email a few other multihull designers and ask them whether or not this folding system will be able to handle the stresses placed upon it Why not contact multihull guru Dick Newick and see what he thinks about it? Contact Scott Watts (a boatbuilder with decades of experience at <http://www.seaworthysolutions.net>) who build the first swing-wing system for a Seaclipper 20 and see what he has to say about it. Ask him if he thinks it will work. Ask him if he thinks this system is at least as strong as a Farrier or Dragonfly folding system. Such questions cannot be left up to the imagination. There are mathematical calculations that determine such things. Engineers perform calculations to determine what the stresses will be and what the strength and size that the material used to handle such stresses will have to be in order to do the job. The performance success of Marples' designs over the years is a testimony to the fact that he does these things very well.

**ian**

June 20, 2011

While the wooden swingarm system may intuitively appear to be less than robust, it's worth considering that far larger and heavier wooden masts have been successfully raised and lowered with tabernacle setups for eons...certainly many have failed, but more often than not it's an issue of poor maintenance and/or sheer operator stupidity that makes them come down catastrophically.

The design itself is interesting; I'd love to see some views from a non-bird's eye level just to get a better feel for how the unusual reversed cabin side angle is going to look in real life...that shape has something of a 1960's plywood cabin cruiser-ish vibe to it that I don't hate at all, but will no doubt grate on some people's sensibilities. At the very least it should be a fun view from inside in a big seaway.

The audio clip gives a great insight into how \*real\* designers approach a project- while I may not agree with every conclusion or solution he proposes (beaching a boat this size in lieu of having a tender seems at best highly impractical in the kind of cruising situations it is touted as being capable of and it's not like tris are lacking for deck space), the designer has obviously made a disciplined effort to consider all aspects of what this kind of craft needs and doesn't need, and has left very little to chance.

Finally, as I read about the design I couldn't help thinking that my Cross 24 had nearly the same accommodations- a (custom) double berth on the wing and a vee berth forward, head, a bigger galley area, and a huge storage locker aft of the very dry centrally located cockpit...of course it didn't fold and had a pretty deep draft for a tri with its fin keel, but it's still a pretty impressive accomplishment and properly outfitted and rigged I have no doubt that that boat could manage some serious offshore passages without too many white knuckle moments.

This isn't in any way meant to disparage John Marples or his design, but more to point out that a) Norm Crosses design concepts are \*still\* hard to beat and b) there's already quite a few trimaran designs out there in this size range that are capable of short and even extended offshore cruises, going back to the early Pivers, with trailing capability being fairly common in the newer designs.

Again, nobody should blame John for adding one more to the mix; but I think this speaks more to the notion that maybe the traditionalists at Woodenboat aren't quite up to speed as far as what the world of trimarans needs more of\*...

then again, in their defense it's not like they were going to come up with an identically sized wooden monohull or catamaran with the same speed and accommodations, so maybe they had no choice but to pick the best tri design they received :)

\*FWIW- in my opinion, there is a woeful lack of dinghy sized (10'-14' or so) one design and development class trimarans out there intended for sail training, racing and general fun and especially needed is a very small, simple entry level boat of a standardized design that could be built quickly by DIYers and sailed by kids...basically a trimaran version of the Sabot or Optimist style boat that would be faster, safer and would contribute immensely to the ranks of future small trimaran fans.

#### **Small Tri Guy**

June 20, 2011

Yes Ian ... sure would love to see more quick-construction "dinghy tris" for homebuilders.

#### **Wade Tarzia**

June 21, 2011

Response to the "lack of dinghy-sized tris" above: Isn't there a wooden tri of about 10 feet length that fits this bill exactly? Do I recall correctly that Marples has built one? (Of course, a plastic one exists from Windrider Trimarans.)

#### **David Kagan**

June 21, 2011

Ian's last paragraph on a small dingy sized trimaran is interesting. I have had the same thoughts. I am about three weeks away from having a dinghy sized tri finished. I wasn't able to work on it in May, or it maybe would have been finished by Memorial Day. Construction started last December.

This is a new, unproven design. We'll have to see how it sails. Sailing performance is a big unknown now.

The main hull is tall, 32 inches, and narrow: about 1 foot wide at the water line and two feet wide up at the gunwhales. This is a really tall main hull for a dinghy. But with the main hull being so narrow a la tri standards, the height is needed to have enough bouyancy for crew on such a narrow hull and to hopefully tame a tendency (if any) for pitchpoling. The ride should be drier than if the freeboard was more canoe-like. The footwell as a consequence can be self draining as the sole is well above the waterline.

The main hull is tortured ply, which provides a vee bottom and a bow with a fine entry. The amas are 20 inches high in the center with a vee cross-section with a bit of rocker. It's hoped that this rocker will facilitate tacking while also assisting against leeway. The main hull has very little rocker hopefully to avoid hobby horsing and to preserve as much bouyancy as is reasonable in a short dinghy sized hull. If I built this a second time, I might use less rocker toward the bow of the outriggers and end up with a bit more bouyancy. We'll have to see how this sails (or doesn't sail) before making a final decision on this.

The main hull looks good, particularly from the front. It's my favorite component. Tortured ply is a relatively easy way to get a good looking hull shape.

I've built tortured ply canoes before. They usually have a hard knuckle up by the bow where the folding seam starts. For some reason, the knuckle on the main hull is really subdued if it's noticeable at all. The transition is very smooth, at least under workshop lights. I can't figure out why unless the height of the bow of the main hull, which is nearly double the height of a tortured ply canoe bow, spreads the knuckle effect over a much wider area? It remains a mystery.

The cross beams are store-bought galvanized constructions that should have an abundance of compressive and tensile strength for a small dinghy. Ignoring their immense compressive and tensile strength, they are rated to deflect only a fraction of an inch if 3200 pounds is applied to the center of the ten foot beam supported only at the ends. Did I mention the beams were inexpensive? To get these beams boat ready, all they needed was paint. This means about 0 time is spent building beams.

Assuming it sails properly, the boat will carry a crew of two or an adult and two kids . . . in theory. The three hulls provide roughly 1400 pounds of flotation, with the main hull being a big chunk of this. My fingers are crossed.

This prototype was made to test out some design and construction ideas on a small scale. A "real" version would be scaled up to 16 to 20 feet, perhaps requiring more robust beams (perhaps using an assembly of the same store-bought constructs in a beefier assembly).

Each outrigger weighs about 45 pounds. I think I could save about 5 pounds in a next iteration as I used 1/2 ply for the 5 outrigger bulkheads with no cutouts. I used fir for the two deck beams on each outrigger. Cedar beams will work and will be lighter. The main hull with decks will be about 125 pounds. I could save maybe 20 pounds in a next iteration. Each cross beam weights just under 14 pounds, which is not so bad. Comparable Fiberglass beams are available via special order. Although lighter and corrosion resistant, these are not as strong and cost a lot more. Maybe fiberglass beams would be strong enough, but I haven't investigated that. If the boat sails well in its current form, I might keep the scantlings as they are and not go lighter.

There's an article that suggests that highly rockered outriggers have some drawbacks. But, that article expressed design concern on a much larger boat whose main hull also had considerable rocker. We'll see what happens at dinghy scale with a low-rocker main hull.

If sailing balance is iffy, the design will allow the position of the outriggers to be shifted forward or aft to try to tune the balance if needed. About 180-200 total hours of construction time are involved, including more hours than I would have guessed for fairing and painting, assuming I have roughly 25 hours to go. About 30 hours were wasted having to fix mistakes and doing some things over. All three hulls were built in parallel, which contributed to efficiency considerably.

The height of the outriggers relative to the main hull can be varied by swapping out struts where the beams mount to the outriggers, if needed. This will have to be tuned with the water trials. I'll bring 3 strut sizes with me on the launch day to see what works best.

Auxiliary power currently is an electric trolling motor mounted to the port side, rear beam. A 12 pound tractor battery in a box is mounted to the same beam on the starboard side. Wires run inside the beam are out of the way. The tractor battery won't allow running the motor for an extended period, but I'm hoping it's only needed to get away from the launch site and then come back in. Theoretically, there's more than enough juice for these two minor motoring operations and a little bit more. I have the battery already. I have the motor already. Why spend any more \$\$\$ for auxiliary power on an unproven design?

If the boat fails to perform and the reasons can be pinpointed, there will still be lessons to be learned that may benefit future builds. Maybe this design could be fixed as well depending upon what is pinpointed.

**ian**

June 21, 2011

Wade- I've seen a couple of boats in this range, but aside from the windrider one they seem to be more of a one-off thing designed for the builder's very specific needs, as opposed to a standardized one design/class type of thing. And as much as I get why some people like the sit down foot pedal steering approach so many DIYers and production small tris are going towards, in my humble opinion part of learning to sail is understanding how live ballast works, so in my perfect world a small sail trainer tri would require some moving around, hiking, etc. instead of being something you just sit in and drive.

David- sounds like you and I are on the same path...I've been playing around with ideas for this type of boat off and on for quite a while, and am now at the working model building stage...my design is very similar to what you describe- very fine entried and tall main hull of about 10' in length built with a tortured ply/stitch and glue hybrid technique, with each ama developed from a single 4X8 sheet using a similar technique with a bit of origami tossed in...

Just like with the small prams mentioned above, I've sacrificed some aesthetics and optimum hull shaping for ease of building and especially for light weight, which is going to be key for anyone attempting this kind of boat and can make up for a lot of the kinds of speed-sucking bumps and weirdly shaped runs you mention that this kind of developed sheet hull is prone to have. As it stands I've managed to get the hull sheathing down to two 4x10 sheets for the main hull and one sheet each for the amas, and my plan is to use thin wall 6000 series aluminum for the crossbeams.

As soon as I have a presentable model I'll send pics along to Joe and perhaps we can all hash out the details and challenges of designing/building this kind of boat in a thread dedicated to doing so...until then keep at it and think "weight savings".

**Small Tri Guy**

June 21, 2011

Hi Wade, Yes ... John Marples does have a 10-foot Seaclipper trimaran. It can be built in either Constant Camber or ply on frames/stringers. But like Ian mentions, there is no hiking out ... it features cockpit sitting & foot pedal steering.

**Small Tri Guy**

June 21, 2011

Hi Wade,

Can't wait to see your pics!

**Wade Tarzia**

June 21, 2011

What pictures? Of my quickie trimaran with the inflatable amas? If so, my website has a couple of those. Don't have many, anyway: I was saving my camera battery during the EC not knowing I would have to drop out after 27 hours :(

**David**

June 21, 2011

Ian:

One of the challenges for me was coming up with a suitable rig that had enough sail area that could drive the three hulls with enough power but without overpowering the boat in a way that might cause pitch poling. It's hard to fit more than a modest amount of sail area on a short dinghy. I tested some initial concepts but didn't like them (windsurfing rig, bi-plane rig, etc.). I'm hitting the water with a balanced lug rig set up and tuned as taught by Michael Storer on his website. I bought his Goat Island Skiff Plans in exchange for using his rig ideas, and hope he'll find that to be fair. When the dust settles from one perspective, I'll already have my GIS rig ready when I build that skiff. The sail area is about 105 ft<sup>2</sup>.

**ian**

June 21, 2011

Just looked up the Seaclipper 10 and it's definitely a great example of a well thought out boat of the type we're talking about...there's some good pics and an overview from an owner here-

<http://www.duckworksmagazine.com/11/projects/smiling/index.htm>

in discussing all this I'm reminded of reading about the first meeting of WWII era German rocket scientists and their American counterparts after the war, where they all finally got to look at the guts of the machines they had been building...I believe it was Werner Von Braun who expressed the opposite of surprise when they all discovered that they had all essentially come up with the same thing while working in extreme seclusion and secrecy, as physics and the state of materials technology dictated what would work and what wouldn't.

Obviously cobbling together a small DIY trimaran is more forgiving than trying to build guided missiles from scratch, but it's interesting to note that as any boat gets smaller, the margins of what it can and can't be shaped like and still perform begin to shrink considerably...one prime example being that at some point the very narrow displacement hulls with fine ends type favored by big offshore racers and seen in many sailing canoes/kayaks simply won't scale down further and still be able to float a person and a sail rig and/or perform adequately (or even safely). In that sense designing a small boat of this type can present bigger challenges than a seemingly more complex larger boat might...it's not at all as easy as just shrinking a bigger boat down.

Since this is after all a thread about John Marples and his designs, it would be interesting to hear his take on the problems surrounding this type of design and especially his take on the various strategies that might help overcome these design challenges...

my gut feeling is that weight reduction is probably the biggest bang for the buck available to the under 14-foot or so tri designer looking for performance...not that much different than with any boat, but in the case of multihulls the reduction in dead weight and wetted surface over a ballasted boat means less overall stresses generated as the boat interacts with the water, which means you can build lighter still...obviously there's a point where you hit a wall where structural integrity can't be maintained even using highest of high tech materials, but in my opinion very few boats are even close to exploiting the possibilities.

Here's one guy who is thinking along the same lines- this hull in particular looks like a great candidate for an ultra-ultralight small tri concept if you are willing to sacrifice some durability for the sake of speed-

<http://gaboats.com/boats/arrow14.html>

It's still a displacement hull and no matter how light will still probably face the possibility of sailing under when driven too hard, but at twenty pounds with a 2 1/2 \*inch\* draft, maybe not...besides, using similar construction a true planing trimaran light enough to do so regularly in real world wind conditions might be very possible.

#### **Wade Tarzia**

June 22, 2011

David: Have you not considered dividing the sail plan into more but lower sails to reduce heeling? A cat-ketch or a cat-yawl? Sure, you lose some windward capability, but you can still close-reach, and how far is a 10 footer going anyway? :-)) If you can extend the gap between main and mizzen — one mast at extreme bow, one mast at extreme stern with a boomkin — the backwinding of themizzen might be reduced slightly.

#### **ian**

June 22, 2011

David- very true about maximizing sail area in small boats...which IMHO is another reason why keeping weight down is so critical.

There's more than one way to skin a cat (or tri) and very often larger rigs with their inherent weight and safety concerns reach a point of diminishing returns quite quickly, especially in a non-ballasted boat that you don't want to have to pay careful attention to 100% of the time...but for any given sail area, in all but the lightest of airs the lighter of two otherwise identical boats will almost always see performance gains long before it gets so underbuilt that it can't hold together.

I've mentioned it elsewhere on this blog, but it bears repeating- there's a lot to be said for exploring more traditional multihull rigs like the crab claw or some updated version of it in lieu of trying to force a generic bermuda/marconi rig to perform on multihull boats that were never a consideration during its original development, all based on the common assumption that since it is (arguably) the best all around rig for monohulls and something of a performance benchmark, that it \*must\* be the best thing to put on a multihull.

I've built and sailed a number of models using a sort of delta/crab claw hybrid rig that tacks in an over the top manner similar to the Gibbons rig, and shows a great deal of promise...one aspect of it and similar rigs that ties in with the weight thing is that with a traditional marconi rig some amount of thrust off a boomed mainsail is always acting to drive the boat downwards, but rigs that can tilt to windward and spill excess air off the bottom can actually develop lift (albeit at the expense of forward thrust)...rather than trying to flip the boat over, in a gust some of the force is actually trying to lift the leeward parts of the boat (and the bow) \*up\*, and in normal operation and properly trimmed this lift can be used to effectively lighten the boat and reduce wetted surface...allowing a smaller sail to do the same work as a larger one, with less complexity in its design and operation and less stress on the boat and rig (and operator) to boot.

In my tests with models, I have never had a single boat capsize using this rig, and that's with nobody on board to steer the thing through gusts or tend lines, in wind speeds that in scale were far beyond anything even I would be crazy enough to take a small boat out in.

On top of that, the non-bellied nature of this kind of sail makes it far more appropriate for a fast multihull, where even fully battened traditional fore and aft sails simply can't get beyond the point where the boat makes enough of its own wind to make the sail luff on all points of sail (which with so much apparent wind all eventually become close hauled) no matter how tight you sheet it in or apply all manner of vang and cunninghams and the like...perhaps it's wishful thinking to think this is important in a boat as small as we are talking about here, but the ease of fabrication and simplicity of this kind of rig are enough to make it appealing even if the boat is never going to go fast enough to take advantage of the non-luffing aspect.

#### **Andrés**

June 22, 2011

Hi John, thanks for share with us the information about the DC-3. Also your answers above were very clarifying to me. I am very interested in this design because I want a seaworthy simple boat for two or three people, that can sail in the open sea (not for crossing oceans), but also in rivers, that has a reasonable interior and that is simple to build and maintain. I am not interested in a speed machine, if it sails well it is enough to me. The only thing that I don't like very much is the CC construction. First it seems difficult to build the mould and then you have to use vacuum-bagging that seems complicated. Second the curved hull may be difficult to repair in case of damage. Third the hull seems to be very vertical near the top and so not very comfortable for the back. I think the CC construction is very good for a fast boat and as Marples said it speeds the construction. But I prefer simplicity and to have a boat that I can fix myself (I am not very handy). So I think it would be very interesting if there is a plywood version of the DC-3, perhaps using ideas from the Seaclipper 24 or with the addition of a single chine.

Regards, Andrés.

**Eric17**

June 22, 2011

~3m DIY trimarans :

Marples CC 3m & Seaclipper 10, Kendrick's Scarab 350, Gumprecht's Drifters 12 & 12L (and Gumprecht 12'), Triptique 12 ....

**Small Tri Guy**

June 22, 2011

Hi Andrés,

I encourage you to strongly consider CC as a preferred method. I didn't quite understand the beauty of this approach until actually building in frame/stringer. The hardest part (and not so hard at that) would be building the mold table. After that, however, creating the mold panels would go very quickly. But the best benefit would be the fact that the CC panels are rock hard. The word I most often hear that is used to describe CC hulls is "bulletproof." And while that may be an obvious exaggeration, the point is that the extra hull thickness of CC, when combined with the fact that you'd be using less wood in the construction project overall, makes it a solid 21st century building option. Plus, if you ever needed to repair a CC hull then it wouldn't be any more difficult than repairing a standard plywood hull. I just listened to an audio with Meade Gougeon and he spoke about how a boat built properly in wood will last for decades without losing any stiffness at all. He said wood won't "micro-crack" in the way that plastic boats do, which is one reason why racing boats made with high-tech materials are retired after 3-4 years or so ... they lose their stiffness. He totally convinced me that wood is still the best material for most boats ... especially small trimarans. And if I ever build another boat it will be in Constant Camber.

**david**

June 22, 2011

Wade:

Split rig concepts are interesting. In hindsight, I wish I had built the boat in a way, e.g., with some alternative mast stepping options, that would allow me to experiment with split rigs. I'm too far into the build now to alter the design, though, without some serious hull surgery. I have my fingers crossed, but I'm hopeful I'll have good helm balance. This boat should not heel much. I'm more concerned as to whether it will have good manners with respect to avoiding pitch poling.

The other concern I have is capsize recovery. But I have a two step strategy in mind for this, keeping in mind this is a small boat that will weigh roughly only 200 pounds assembled. This is a lot of weight for a dinghy . . . except I've got 3 hulls totaling 24 feet in length. As a first part of the strategy, I was going to run three stays from the top of my mast down to the bow of each hull. These emerge from the mast high enough not to be in the way of the lug rig's yard. These are not needed for mast stability, but my plan is to string swimming noodles on these with the hopes that the noodle flotation will prevent a full turtle if the boat goes over. Next, I have a pair of lines stored underneath the side seats. If I hook these to the fore and aft beams and pull from a point 20-30 feet from the boat, I should be able to pull it over assuming the noodles are doing their job and the boat is sitting roughly sideways in the water.

**ian**

June 22, 2011

Eric- Thanks for the post regarding available small tri designs...of the ones listed, the Scarab 350 and Triptique are closest to what I consider ideal as a sail trainer, as they both have a standard tiller/seating arrangement.

As I said before, the working with live ballast thing is imho a critical basic skill needed by anyone who intends to sail in water that is deeper than they can stand up in, even in a tri...besides, anyone who learned to sail in small boats as a kid knows that half the fun is pushing the thing to extremes and beyond- sailing it totally out of trim because three of your friends are on the bow, finding tops of blown out spinnakers in the trash behind the sail loft and rigging them up even though they are ridiculously oversized for the boat, capsizing just for the hell of it, etc...also there's times when pure sailing has nothing to do with it and you just need a platform to do your goofing around on, and the boats out there designed with formula car-style seating in many cases just don't allow this, much the same way that a formula car would be a poor choice for getting groceries or tailgating.

Like I said before, I get why some people like the car style seating, but my personal feeling is that one major advantage of the trimaran type is the huge amount of moving around/lounging room you get for any given length compared to traditional monohulls...dedicating the entire boat to pure sailing at the expense of this ability to move around, carry people/stuff, optimize fishing and diving activities and the like always seemed like a waste to me...might be hard to imagine for someone just bitten by the bug who will gladly grab any opportunity to get out on the water, but most sailors I know eventually get the itch to do something in their boat besides just sail for the sake of sailing.

To that end of optimizing space, the overhung F-boat style deck arrangement on the Scarab and Triptique is also a very nice feature, although the extra work involved might be a bit daunting for a first time builder- tris are always a bit more of a pain to build and maintain because there's three of everything and tons of surface area to paint, clean, etc...but for someone willing to take on the added build complexity, those boats are very close to what I would personally consider ideal...the Scarab in particular has a very sexy, shrunken down bigger boat look that's hard to resist.

**Andrés**

June 23, 2011

Hi John. I will continue studying the CC method, but I am not convinced yet. I love wood. I have a Wharram Tiki 26 catamaran that is very simple and seaworthy, but I am looking for more interior volume without getting very big. I want something simple and seaworthy. May be something like the trimarans in the Ho Judson cartoons. To me,



the stitch and glue method of the Gudgeon brothers is the more simple way to construct a boat and it is very easy to repair. But I don't know if it is suitable for a comparatively fatter hull as the DC-3 and I think that Marples has no designs in stitch and glue.

Regards.

**Wade Tarzia**

June 23, 2011

David:

RE: capsiz recovery — Instead of pool noodles, which might have a windage and ugliness factor, I wonder if building one ama to enable flooding is a better option. A screw-out port in an ama-transom would allow easy floofing and rotation around the main hull. Then the water could be mostly spilled right out and the screw-in port replaced. (though if this is a tiny tri, then just standing on one ama and using a righting line or pole might be simply do the trick).

**Small Tri Guy**

June 23, 2011

Hi Andrés,

The Marples' Seaclipper designs are frame/stringer construction, which is very similar to stitch and glue overall. I understand your hesitancy to embrace Constant Camber. But keep in mind that the thicker CC hulls would eliminate the need for bulkheads. In the end, that would give you more room inside the craft ... while necessitating less wood to construct the boat in the first place. That saves cost in building materials. And another thing that you may want to consider is that CC hull sections can be constructed out of thin panels created from 1/4" waterproof luan. At \$22-23 a sheet, this is far less than "marine-grade" ply at \$70+ per sheet. The CC constructed boat can be built for much less and you'd get tougher hulls in the end. Anyhow, I just wanted you to consider your choices with as many facts as you can gather in order to access the options. Best to you as you decide on the trimaran that you want to build :-)

**Stefano**

June 23, 2011

In Italy – I ignore if elsewhere – there is a development class for 10 ft overall boats. Very few limits include length, breadth and sail surface.

Find herewith attached pics of a 10 ft demountable tri. The plans although in italian and metric can be downloaded for free at the end of the article in the link in pdf format.

More pics of the boat can be found by googling the net for "triciclo" dieci piedi

Cheers to all, Stefano

<http://www.dieicipiedi.it/ns/vario/triciclo/triciclo.asp>

**Small Tri Guy**

June 23, 2011

Great link to the Triciclo Trimaran Stefano! I want to sail one :-)

It perfectly fits into the discussion about "dinghy" trimarans.

**David**

June 23, 2011

Stefano:

That's a great link. The website on the little tri is very interesting. It's motivation to get my little tri project done.

If anyone is interested in getting a fast, free translation of the triciclo site, the site Google Translate at

<http://translate.google.com/>

It's an easy way to get a reasonably serviceable translation of the triciclo website itself from Italian to English. I don't think Google translate will help with the pdf, though. But if the pdf has a url address, who knows?

To translate, enter the url of the website in the box on the Google translate page, and then choose your languages in the to and from dropdown boxes.

**Phil in Australia**

October 23, 2015

Stefano, go speak to an aviation engineer about flex ;-) all Boeing, Airbus etc aircraft wings flex considerably prior to creating lift, go tell them flex is bad, they are most scrutinised engineers in the world :-) let us know how you go

**jose**

April 28, 2017

Have you ever considered making a tri with a Macgregor 26s. Its light, 1300 pounds. And is trailable... Maybe with Hobbie pontoons...18feet. make then swivel like your tri?

# Trimaran Dinghies Meeting Physical Challenges

June 24, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: dinghy trimarans, trimaran dinghies

No Comments

# Planing DIY Trimaran Amas

June 27, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: DIY Trimaran Amas, planing trimaran

## Comments

**Stefano**

June 28, 2011

Out of real world experience: your blowing the mast step is because it became under designed due to the OVER design of your floats.

Be aware that cross bars are the second structures likely to fail under the load caused by no wind spilling off the sail when pressed hard, if the floats have no tendency to submerge and give some.

Third chance is that the main hull becomes air borne and you may experience capsize with a tri, a great experience indeed. This can happen only if floats exceed whole boat displacement, and at 800 lbs you're very probably at about 150% of loaded displacement.

But I take your point: I also have given some angle and flat surface to my floats in order to have dynamic support ( like a planing hull) rather than just static ( volume) support.

Striking a good balance is the whole design objective.

I remember an Americas Cup race boat that tore the whole bow off the hull: the mast and stay did not give in, so the hull did. Another one cracked in two under mast compression after taking a couple small waves. Again, if too much load is applied, some part will fail. I'd rather have smaller parts fail with no potential risk, acting like fuses on an electric scheme, than larger ones without premonition. And believe me , I had quite a few failures on my tri :-)(excessive sail and pressing hard being my overloads)

Looking forward to reading more real experience and perhaps some videos.

Stefano

**Frank**

June 28, 2011

Hi Stefano – Thanks for taking the time to post. As you note, it's really all about striking a balance among design objectives.

Going back to smaller amas would lead me back to the same problems I have worked to get away from, so the new planing amas are clearly a step in the right direction. Adding them actually caused no problems. The problem came, or at least manifested, when I upgraded to the bigger (102 sf) sail. In any case, reinforcing the mast step has solved the problem very nicely. Now I can push the boat as hard as I want without breaking anything. And I guaranteed future hulls will have sturdier steps (just as my wife's tri already has).

And yes, I have also had to add sturdier akas along the way, especially when I used the stayed mast with shrouds attached to the amas. Like I said, everything I do is part of the learning curve. And to paraphrase what Hobie Alter once said, I just build my boats, then take them out, push them as hard as I can, see what breaks, and fix it.

I'm 100% convinced that these planing amas are perfect for this kind of boat. I wish you could personally experience the difference they have made. Now it's back to the drawing board to design a hull worthy of these amas!

I'd love to see some photos of what you are doing. I think sharing our thoughts and pix is a big part of what makes building these little boats so enjoyable and rewarding. And I do hope to have some new videos soon, but the cheap little camera that took the other one has stopped working. Maybe it's time for that GoPro...

Take care – Frank

**ian**

June 28, 2011

The final pics of the boat with new amas installed just goes to show you that this kind of experimental design fabricated with less than the finest marine grade materials and techniques doesn't need to look like a joke...I've always liked the look of this boat and it just gets more and more refined.

I also love the fact that the designer has allowed form to follow function and embraced elements like nearly dead-straight runs and slab sides that so many sailboat designers dismiss out of hand- sometimes for good reasons, but sometimes it amounts to little more than sheer prejudice against anything that even hints at looking like a powerboat.

Fact is that when you start talking about consistent speeds in the double digits in a boat this size, you need to start thinking in that direction anyway; the realities of hydrodynamics are such that any displacement hull even with no side/heeling loads and on a flat sea will eventually sink when driven hard enough, and anyone who has played around with over-powerful rigs in small boats knows that sailing such a hull under isn't really that hard to do at all.

There's so much potential down this alley of planing hull forms on tris, especially for those whose needs don't involve dealing with ocean sized wave conditions...pounding and associated stress are a big issue if you drive this kind of hull in any kind of waves or swell where the lift and water action can combine to lift nearly the entire forward half of the hull out of the water and then free fall into the next swell's approaching face over and over and over...but this type of shape is a rocketship in good water ski conditions- just a faint wind chop to help get some air under it.

The one negative that needs to be considered by anyone considering this planing ama route is that even a hull that develops gobs of dynamic lift at speed can be sunk, and having it attached to the weight of two more hulls and the drive of a sail by a big lever is a great way to do that...the Formula car-like sailing experience can get a whole lot more Formula car-like when your dynamic stability system gets pressed beyond its limits- when these types of systems fail, they tend to do so instantly and in a spectacular fashion, which is why so many ground effect assisted suspension schemes have been outlawed in formula car racing...when they go south you don't just break something and limp home, instead the whole car flies off the ground like a kite when the critically necessary-by-design downforce goes away.

In the case of an ama that \*needs\* the dynamic lift to develop enough righting moment to sail its boat safely without using live ballasting, one potentially not fun situation would be something like a sudden wind shift or possibly wave action that could cause the boats forward momentum to drop precipitously while there was still enough sideways force from the sails to capsized the boat without the added upforce of the now missing dynamic lift.

Of course there's ways to avoid this- with light enough construction you can have all kinds of displacement hull-like reserve buoyancy above the planing surface, that because it only touches the water when needed can be shaped for other reasons besides pure in-the-water efficiency.

And for those into pure performance, this kind of planing form combined with live ballast and plenty of sail is capable of truly astounding performance- if controlled and not at the expense of too much forward thrust, the type of lift on the main hull Stefano describes can be a very desirable thing, but as he points out, the safety margin becomes thinner and thinner and predictability is the tradeoff for the extra speed. Plus you'd have to put down your cigar and snifter of brandy and grab a tiller =0

Unfortunately if it matters to you, the most efficient form to achieve quick and consistent planing at wind driven speeds with enough reserve buoyancy to be safe in real world conditions probably isn't going to bring to mind the grace and beauty of golden age J-boats or graceful water-spiders-from-outer-space maxi tris, but will look more like something you'd tow water skiers with, or a surfboard- or possibly both....it worked here, just imagine if you got rid of all that dumb ballast-

<http://www.sailinganarchy.com/fringe/2008/1Ragtime.jpg>

[http://www.sail-world.com/photos/Alt\\_Ragtime.JPG](http://www.sail-world.com/photos/Alt_Ragtime.JPG)

**ian**

June 28, 2011

One more thing re: the mast step failure-

In my experience a lot of this type of thing and similar rig failures in tris is directly attributable to improper shroud placement, specifically going too far outboard with the shroud chainplates.

While it may intuitively seem that a more widespread footprint would be more stable, in a sailboat there are other forces at play that make it an entirely different can of worms than something like a fixed antenna tower on dry land...as the chainplates move outwards the increasingly horizontal angle of the shrouds allows some catenary curve to develop, and that curve translates to gravity acting more or less perpendicular to the direction of tensioning, as opposed to helping add tension as it would if the cable were oriented vertically.

The end result is some bit of added slop to the whole affair that can't be tensioned out without pushing the shroud material/rig closer to its breaking point, often too close...so if everything isn't stretched to the max, the mast is free to move but will likely do so in a "pumping" motion when wave action and hull motion is added in, especially in the type of spreaderless rig that many people are trying to achieve by placing the chainplates so far out.

On top of that, all that added tension from trying to get that catenary out is working to drive the mast through the hull, when a more vertical shroud could do the same work with less initial tension. Add in some mast pumping and the working loads can spike far beyond the various parts' capabilities in a flash.

So- this may be nature's way of telling you to move your chainplates farther inboard, which will also have the added benefit of allowing a lighter ama and simplifying the shroud attachment if you can manage to go to the aka itself.

**Stefano**

June 29, 2011

Hi Frank:

" Like I said, everything I do is part of the learning curve. And to paraphrase what Hobie Alter once said, I just build my boats, then take them out, push them as hard as I can, see what breaks, and fix it."

JUST LIKE ME THEN :-) !!!

I'm 100% convinced that these planing amas are perfect for this kind of boat. I wish you could personally experience the difference they have made.

NOT FAR FROM TRYING ;-)) JUST WANT TO MAKE SURE THE CROSSBEAM WILL SUPPORT THE INCREASED PRESSURE OF OVER 220 FT OF CANVAS ;-)

I'd love to see some photos of what you are doing.

My boat is Nepau and is already in this blog... also on youtube. All current improvements will be recorded and submitted.

All the best, Stefano

**Stefano**

June 29, 2011

Mast compression:

I just forgot to say: my mast has a double support: it has a mast step on the floor of the hull, bracing the sides, 3/4 inch plywood, and a mast partner bracing also the hull sides with a box beam 2 ft above the floor.

Plus, it takes shrouds out to chainplates brought out to the "terrace" seats ( 2.5 ft away from the mast). The shrouds can snap, the mast will keep going ( happened).

The loads: the mast partner takes bending loads, while the shrouds convert this bending load into a compression load vertically. My shrouds are sufficiently elastic ( dyneema) to allow for load sharing between the two structures. My sail is from a 420 international dinghy ( 130 ft circa) + 150 ft of downwind gennaker that I fly occasionally.

All damages were to windward with wind + wave load . Future improvements will include a second pair of textile shrouds to the amas

Yours friendly Stefano

**Frank**

June 29, 2011

Ian, you certainly raise a number of worthy points. Thanks for your kind words about my form-follows-function designs. I'm not sure why so many sailboaters dislike straight lines or sides, but the folks who design and build powerboats don't let tradition stand in the way of performance. And it's amazing what you can do with cheap 3 mm plywood, epoxy, and fiberglass. I have found these boats to be almost indestructible (in normal use) as long as you don't underdesign critical parts — like mast steps for unstayed masts.

Even though it was one of my unstayed masts that broke through the hull, your notes about chainplate location are definitely on target. I have never experienced any damage or failure while using my stayed mast rigs, but it is clear that having the shrouds at a wide angle to the mast brings its own set of problems, especially when they are attached to a point on the amas. When I first tried the stayed mast rig, it was painfully clear that the flexibility of the akas would keep me from ever experiencing the shroud tension I wanted. But since my hull is just 24" wide at the gunwales, I didn't have any other options. I did increase the diameter of the aka tubes, but it was by no means a perfect solution.

And as you say, the variety of dynamic forces can create some pretty scary interactive motions in rough weather and the mast flops from side to side a bit, and the amas move up and down as the water surfaces does, and the jibstay alternately slackens and tightens on a run.

Overall, the sails on my unstayed masts have produced the same top speed as my larger sails on stayed masts. But I believe that's because my speed is limited by what is at best a semi-planing hull. The bow of my V-hull boat seems to start getting lower in the water at about 12 mph. I could try moving my seating position back, but I suspect a better hull is going to be the answer. My new design, which I'm about to start, is essentially a long (well, 16' long), skinny powerboat hull.

Re the issue of going fast enough to get in trouble (1.e., pitchpole, bury an ama too far, or otherwise capsize), I really can't see that happening with these designs. The bigger amas won't submerge even under maximum loads, and the additional forward buoyancy I'm building into my new hull will make such problems even less likely.

I don't smoke cigars, but I definitely love having my hands free while zipping along. I have always disliked tillers, which seem to me to be the only part of trimarans that are still in the 19th century. Of course, if your boat is bigger than mine, you'll probably want the option of moving around, in which case the tiller is a necessary evil. But for me, foot steering just can't be beat.

Finally, I'm planning a small tri with fold-out amas. It will by necessity have aka supports that extend out to 6' or so. Should I opt to power it with a stayed rig, this will give me a sufficiently broad base to attach shrouds not subject to all the problems of ama-located chainplates. Unlike my current tri, which shares a trailer with my wife's tri, this one will have its own dedicated trailer. Between the folding amas and my new mast design, I think I can cut my launch-prep time from about 15 minutes down to under 5 minutes. Onward and upward!

**Frank**

June 29, 2011

Stefano, I read your very interesting article on this site and watched your (too short :) video. I had a very similar experience with a leeboard failure causing, in turn, a rudder failure. It was a "double-whammy" lesson in the perils of underbuilding both the leeboard (foam-core...never again..) and the rudder mount, which is much sturdier now.

I see you have made steady improvements to your boat. I doubt I'd have the courage to buy a hull made by somebody else and push it hard. The one thing that struck me was the beam, after the trimaran conversion. From the bow view, it struck me as being overall too narrow. The measurements you provided served to confirm this. I'll be that taking your overall beam out to 12' or even 4m would add a whole bunch of stability, and enhance top speed as well.

Of course, the aka tubes will need to be up to the job. I have found that 3" drawn aluminum (6061 T6) tubes with .065 walls are quite sturdy and well as lightweight, and all my future boats will have them.

Finally, I understand why you might want synthetic shrouds, but I have gone back to stainless steel shrouds, which are a lot cheaper and have a lot less windage. And I can assemble them myself at the local marine supply store.

Happy sailing – Frank

**ian**

June 29, 2011

Hi Frank-

Thanks for the response and for accepting the stuff about chainplate locations in the spirit in which it was intended even though it turned out to be erroneous in this particular case...one thing you mention that I forgot to add re: mast pumping is that any kind of aka flex can contribute greatly to this problem and needs to be considered by anyone using this kind of tubular design on a small scale, especially if they are using tubes/alloys that were never intended for use as spars...even some of the high tech aluminum out there that \*is\* intended for that purpose may have built in deflection qualities that can allow for rig tension to come and go to an unacceptable degree.

That said, the worst mast pumping I ever personally experienced was in a Piver Victress with solid wings decks that we were amazed to get back to the slip from a sea trial with the rig intact.

As for the sit-in/foot steering thing- again, thanks for taking \*that\* in the spirit of gentle fun that was intended...I've gone on record on this blog before about my feelings in this regard so I won't belabor the point further, except to specifically address your comments about things being antiquated...

one aspect of modern tri design I see as a possible pitfall (especially for amateur designers) is a tendency to go overboard (no pun intended) with modernization for modernization's sake...and one modern idea related to tris is the notion that movement of live ballast is more or less irrelevant.

For boats operated in protected waters by people who aren't pushing their limits or who do so with eyes wide open and enough experience to know when to back off, that may very well be a valid position...but there is always the risk that less experienced sailors and designers reading blogs like this will treat the trimaran concept as being essentially a monohull with training wheels that requires no special skills to operate safely, which it isn't.

It bears considering that the original Polynesian proas relied on live ballast via an ama oriented to windward as an integral part of their design and operation...and that the most successful Atlantic style proas with this layout reversed use leeward amas that are proportionally far larger than what we see in most trimaran designs that not at all coincidentally are always burying their amas.

So when I see people talking about this age old issue, I can't help but have a bit of a chuckle when the boat design in question has pretty much tossed aside the concept of moving some dead weight around to keep it on its lines- it seems especially odd since even ballasted monohull boat sailors do it and it's part and parcel of non-ballasted performance dinghy and cat sailing.

You have obviously thought this out in relation to your needs and have walked the walk with trial and error experiments, so this isn't directed at you personally...but I do see a trend where people who maybe don't have a lot of experience, who might want to sail but want to cut corners and aren't aware where the safety limits lie, are drawn/led to trimarans under the erroneous idea that their initial stability is a constant that can be relied on in order to completely avoid having to learn about and deal with things like hiking and related trimming of the hull(s).

I see this trend in advertising surrounding many of the sit-in offerings out there, most notably some Windrider ad copy-

"Give us the clumsy, out of shape, land bound masses longing for wind and spray while hoisting a frosty beverage in one hand and a pastrami on rye in the other. "

"Have a cabin, waterfront home, resort, rental operation? No experience necessary and your guests will always come back without capsizing!"

While the first example can be cut some slack as a bit of humorous copywriting and shouldn't be taken 100% literally, I'd still contend that clumsy out of shape potential sailors would be far better served by a few weeks on a Laser with a hiking strap than a tri that lets them stuff their mouths with pastrami and soft drinks uninterrupted...

but that second example is, in my opinion as a former sailing instructor, bordering on criminal negligence...even allowing some license for advertising hyperbole, to advertise ANY boat- let alone a sailboat being aimed at beginners- as being incapable of being capsized is just unconscionable, period.

Again, this has nothing to do with you personally or your boat, but in the interests of avoiding some kind of tragedy related to these small trimarans I feel it is important to address the various safety issues surrounding small tri design trends whenever possible even if most people will never be exposed to these risks or have a problem...let's not forget what happened to the three wheeled ATV- it's not at all outside the realm of possibility that a few drowning deaths of inexperienced people who believed this crap could lead to a virtual moratorium on production tris like the Windriders on similar grounds that they are "inherently unstable" and unsafe.

It's been a hard enough slog getting past the missteps and tragedies of the past when it comes to trimarans in general; now that they have some degree of mainstream acceptance it is important to prevent a similar situation from happening again at the hands of people trying to cash in on it with at least in some cases little regard for who might get hurt in the process.

Just my two cents, off my soapbox, now back to your regularly scheduled programming...

Ian

**Frank**

June 30, 2011

Hi Ian - I always assume that my fellow tri enthusiasts want to help, so unless a comment is overtly negative, I see it as positive. You are right about the aluminum tubes. I'm sure they were not made for this kind of use. Clearly, the first tubes I used were not up to the job. But the 3" dia tubing with .065" walls I am upgrading to are both very light end very strong, and seem well able to handle any of the stresses I impose on it, even when I use an unstayed mast and attach the shrouds to the fittings / chainplates on my amas.

As for the modernization issue, as you noted, my "prime directive" is that form follows function. I don't like tillers on my own boats simply because I like to sit facing forward and in one place. My boats aren't big / wide enough to hike out anyway, and there'd be no place to sit if I did, so foot pedal steering is the logical choice. But for those who wish to use their own weight as shiftable ballast, that clearly is a great aid to both stability and performance. And in such cases, a tiller is the obvious choice. It's just not my choice.

And having already experienced a few traumatic events in my various sailboats, I completely agree that it's unwise and even irresponsible to minimize or downplay the risks inherent in operating these little tris (or any boats, for that matter). Without question, we can get in serious trouble if our boat or our brain isn't up to the challenges at hand. And the quicker the boat, the faster problems can manifest.

I had been corresponding with tri guru Jim Brown prior to this year's Cedar Key meetup. We hooked up with him there and he spent about 45 minutes talking with us about our little tris, both of which he examined "hands on" due to his failing eyesight. He is of the opinion that smallish, submersible amas are kind of a safety feature that keeps the inexperienced trimaran pilot from getting into a pitch-pole situation or other potential dangers of high-speed sailing. I support his position when it comes to

inexperienced sailors zipping around in rental tris. But for those of us trying to squeeze out maximum performance from our minimalist craft, it's clear to me that bigger amas = better performance. In any case, I sure do love my new plaining amas. Now I just need a planing main hull to go with them.

BTW, I would be delighted to see some photos or videos of your own boats. Can you provide any links or pix?

Cheers – Frank

**Stefano**

July 2, 2011

To Frank and Ian

As for stability: I have added two “terraces”, visible on the video. This is not only to sit or even lie comfortably enough (9 inch wide by 7 ft) but also dramatically increase stiffness and resistance to torsion motion of the hull, making it much faster. They provide also two excellent fastening points for removable oarlocks and on the lower side, I tied two inflatable cylinders for about 60 liters volume each, that have a double function of rollers to pull the tri on pebbles or beaches, and also act as reserve buoyancy (came in very useful a couple of times ;-).

In between the two akas is stretched a trampoline mesh net 2.5 ft by 6.5, making it very attractive for all lazy friends or sun-bathing keen female friends to act as “live” ballast. Further out is a narrow board 4 inch, that has a double purpose of hiking board and also connecting the two akas, so that the first one up front has a rigid element to distribute part of the load to the other aft aka. It works fine and you can also sit or walk on them.

I'm looking forward to complete the boat in mid July, sail it hard again, make some videos and report soon after. Keep an eye on this site by then

A rudder can be steered and connected via small blocks and line circuit to a vertical leverage on one side of the boat or two..freeing the boat from its length and making it possible to look forward and sit on one side while steering. A friend made the circuit with sufficient friction to allow for self steering of the boat with minimal corrections (a shock cord is also part of the system).

cheers, Stefano

**Frank**

July 3, 2011

Hi Stefano – Sure, let's correspond directly. Email is much quicker, plus we can add photos. BTW, how did your English get to be so good?

Re folding systems, I have developed one that I plan to use, but I have no way yet to show you drawings. I'll work on that.

As for bouyancy in amas, you already know my thoughts there. A lot of static bouyanck with a good amount of dynamic lift as well. I just finished the new foam planing amas for Laura's boat, an I plan to test them out today. I also moved the seating position 14" farther back to try to correct what I think was a bow that was lowering a bit at speed, instead of lifting. I'll let you know how it goes.

We had 13 consecutive days where we couldn't sail, due to no wind or too much rain! I have never seen that before in the “Sunshine State” as Florida is called.

I'm not sure how you plan to use stepped hulls, or how they are appropriate at these relatively low speeds, but I would like to hear your thoughts and see any photos or drawings you can provide. I'm making a new main hull for my tri, based on discoveries I made from the current one. It will have a very shallow V-bottom for the aft 2/3, transitioning quickly to a powerboat-type bow for the forward 1/3. Rocker will be only about 1". I'm trying to get the hull to act more like a windsurfing board than a sailboat. I think if we can get these boats light enough and give them enough planing surface, they will plane at very low speeds. I built a model first, as I always do, so I can see how the lines look in 3-D. The bow was a bit too severe, so I will smooth it out a bit. Photo to follow.

How did you shorten your tri? I wish I could get 12.5 ft long tubes in my desired size, but most of them come just 12'. I have upgraded to 2" dia and .125" walls (1/8") from the original .065 walls (1/16") for my current boat, but the 3" .065 tubing is both stronger and lighter, so my next boat will be designed around that.

How long does it take you to assemble your boat so you can launch and sail? I can now do Laura's boat in about 13 minutes, but I have plans for a system with fold-out amas and a tilt-up sail that will be pre-rigged, and I think I will be able to do it in about 3 minutes. Anyway, that's the plan!

Have you considered building your own hull and amas?

Take care – Frank

**Bryan**

August 10, 2011

Dear Frank,

The amas have 800 lbs of floatation — Does that mean that they are filled with foam or just hollow? And when you talk about planing is there a small step on the amas?

Bryan

**JACK SPOERING**

February 29, 2012

WELL. IF NOBODY ELSE WILL SAY IT I WILL — “ DR. SMOOT'S TRIMARAN INOVATIONS ARE THE GREATEST THING TO HAPPEN TO SMALL TRIMARANS SINCE PIVER CAME UP WITH THE NUGGET”. IF HE EVER COMES OUT WITH PLANS THEY'LL BE ALL OVER LIKE HOBIE CATS.

**TomK**

October 15, 2013

I hear a lot about how having amas with too much floatation will cause a tri to capsize. Well, having amas that are too small will capsize a tri even more quickly. If the ama floatation isn't enough to offset the sail power before the ama goes under, you're in dangerous territory.

Conversely, larger amas that require more force to submerge don't automatically cause the center hull to fly. That takes a great deal more power because of the weight the sail plan has to lift.

I'd rather have amas that are a little too large than a little too small. The former isn't likely to a capsize, while the latter almost guarantees it.

**Charlie**

November 29, 2020

A few years ago I bought a used 14' Sunfish sailboat, with an unstayed Bermuda rig (Super Sunfish), dirt cheap. I'm thinking of converting it into a small planing tri with a beam of around 10' and planing amas of similar, or longer, length. Although I'm a retired mechanical engineer by training, I have absolutely no experience in boat design. However, I do have some familiarity with multis having owned a 14' Duncan Suthpen DC-14 catamaran and a 20' Sailcraft Shark catamaran. That upgrade was like going from an MG to a Ferrari. At first, sailing it was a downright intimidating experience. Ah, but the adreneline flow! In the 25-year period I sailed both. I never once capsized either cat, despite pushing them to the limit. Still, there was a time when I thought that I would pitchpole the Shark while on a broad reach. A strong gust of wind hit me and I stuffed both bows right up to the mast step. The boat came to a complete stop and I still distinctly recall yelling to my crewmate, Back! Back! The bows popped back out of the water and then the boat suddenly surged forward while my heart was pounding. Had I been tempted to head up to spill wind from that point of sailing, I am sure I would have capsized sideways. Anyhow, does my idea make any sense? BTW I am frugal (some may call me cheap), so cost is a factor. I realize that I may have to add a small jib and, possibly stay the mast, because of the increased displacement. I am also hoping that a jib will allow me to point higher than a simple cat rig. My goal is to make the boat more comfortable, dryer and, possibly faster. I plan to raise the Sunfish deck a bit. The reason for wanting this conversion is that I'm downsizing from a Ranger 23 tall-rig sailboat, and my wife wants no part of a tippy, and wet, Sunfish after experiencing the comfort of a ballasted sailboat with a cabin and a head. Besides I'm getting bit long in the tooth, and I am not quite as agile as I used to be when sailing the cats.



## A Few Fulmar 19 Trimaran Photos

June 28, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Fulmar 19 Trimaran

### Comments

**Chris Jauer**

June 29, 2011

Tried buying one back in the 90's just after they stopped production. No joy. I agree that this was a great concept. I wonder what it would take to resume production, its a shame this project was stopped before it got started.

# Vintage Photos of Cross 24 Trimaran Keel

July 1, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Cross 24 trimaran

## Comments

**Mark Gumprecht**

July 5, 2011

Norm Cross had some nice designs. I got to know him while living in San Diego, and used to go sailing with him on his 32 footer Crossfire, which convinced me to build my own 40 version. It had fixed keel a little deeper than the cruising versions, but only drew 4'6", not too bad for a 40' boat. I was very happy with the performance, the boat tacked great, went to weather well, and downwind perfectly. I liked the simplicity and durability for a cruising boat, with no moving parts under the water. I could sail through the heaviest kelp with no problem, and it supported the weight of the boat when hauled out, and made it easy to work on the bottom.

**Derek**

July 15, 2011

Here is a link to photos of my Cross 27. My keel was much larger than the 24 above. Draft was right around 5'. Note the deep skinny rudder too.

[http://i978.photobucket.com/albums/ae263/islandRT/IMG\\_0730.jpg](http://i978.photobucket.com/albums/ae263/islandRT/IMG_0730.jpg)

[http://i978.photobucket.com/albums/ae263/islandRT/IMG\\_0733.jpg](http://i978.photobucket.com/albums/ae263/islandRT/IMG_0733.jpg)

[http://i978.photobucket.com/albums/ae263/islandRT/IMG\\_0721.jpg](http://i978.photobucket.com/albums/ae263/islandRT/IMG_0721.jpg)

This was a great boat and should be somewhere around San Francisco.

**ian**

July 15, 2011

Mark-

Nice to hear of your background with Norm; if you were sailing with him on Crossfire any time in the mid-late 80's we no doubt exchanged a wave or two out on the bay...

also your comments about kelp bring to mind something that I've had to consider many times when reading about different people's designs and projects here- while there are a few basic elements of design that need to be considered with any boat project, there are also a number of considerations that might apply to a boat designed for ocean sailing that might not apply to something used primarily in inland lakes, or vice versa- and there is really no single design concept that is superior overall for every, or even most, applications.

In the case of the Cross designs there is clearly a bias towards ocean going abilities over easy beaching and transportation and the like, but in my opinion his genius was in creating boats that were safe and sensible with good overall performance on many points of sail without sacrificing too much of the speed and space benefits that tris offer.

For those who want something easily beachable or trailerable or ultra high performance his designs (especially earlier ones) may have some serious drawbacks, but in the types of conditions experienced in an ocean setting they really shine.

Derek- Thanks for adding the pics of your boat's keel...do you know if it is a stock Cross design for that boat, or was it modified? I'd always assumed that the low aspect ratio of my boat's keel was somewhat standardized in the Cross designs that had them, but that's only because I've only seen a handful of them and most of those were older boats.

**Derek**

July 17, 2011

To the best of my knowledge the boat was original. From my research the 27 was similar in philosophy to the 32R. More performance oriented than the standard 26.

This photo:

[http://mysite.verizon.net/imagelib/sitebuilder/misc/show\\_image.html?](http://mysite.verizon.net/imagelib/sitebuilder/misc/show_image.html?linkedwidth=actual&linkpath=http://mysite.verizon.net/res78939/sitebuildercontent/sitebuilderpictures/cross27logo.jpg&target=tlx_new&title=CROSS%2027)

[linkedwidth=actual&linkpath=http://mysite.verizon.net/res78939/sitebuildercontent/sitebuilderpictures/cross27logo.jpg&target=tlx\\_new&title=CROSS%2027](http://mysite.verizon.net/res78939/sitebuildercontent/sitebuilderpictures/cross27logo.jpg&target=tlx_new&title=CROSS%2027)

is of my boat when new in 1978 as shown on the current Cross Designs website.

Here is another shot of the boat when I donated it in 2007

<http://i978.photobucket.com/albums/ae263/islandRT/adphoto.jpg>

**john donovan**

April 9, 2022

then i bought that 27 in 2010 or 11 and did a bunch of work to it and raced it quite successfully in and around san francisco

# DC-3 Trimaran Beta Builder's Website

July 2, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Constant Camber, DC-3 Trimaran, DC3 trimaran, Marples

## Comments

**Lenny L.**

April 2, 2013

Has there been any progress on this boat? I can not seem to find working websites for this boat or the designer. I am interested in this boat's construction and plans as well as the seaclipper's

**Brian Nelson**

April 30, 2014

I've searched all over the internet and also can't find any recent information on this boat. That's disappointing - its a great design.

**Small Tri Guy**

April 30, 2014

Hi Brian,  
You may contact John Marples directly regarding specific info about the DC 3 if you have any questions. I haven't heard from Kenny (who is featured in this post) for sometime now regarding his progress with the building of his boat.

**J Elwyn Kimber**

May 31, 2015

Agree with Brian Nelson - with this one John Marples looks like he's solved the problem of the inexpensive small folding trimaran for the home-builder just about as well as anyone could be expected to. It's a very attractive package for low-cost cruising, including low marina charges where unavoidable, and the fact that everything has gone quiet on the prototype DC3 build is disappointing.

**Pat**

August 31, 2017

I would be interested in building the DC3 but I can't seem to get any answers on anything. The question I really wanted to know was if this could be built as a 32 footer.

Pat

**Small Tri Guy**

August 31, 2017

Hi Pat,

I am not a boat designer, but I do know that stretching out any boat requires the reconfiguration of every other part of the boat. In other words, the overall design specs, including all-important load calculations are done with every other part of the boat in mind. To change just one thing on a trimaran usually requires changing other things.

With that in mind, I offer the same advice I already suggested above to Brian - "contact John Marples directly regarding specific info about the DC 3 if you have any questions." His contact info can be found on his website at <http://www.searunner.com> ... although I do know he is currently on vacation this week (the last week of August thru Labor Day 2017).

# Rare French-Canadian Malabar Trimaran

July 3, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: malabar trimaran

## Comments

**Frank**

July 4, 2011

Hi Cole – That is a beauty indeed. It looks like it's essentially flat-bottomed, is that right? Also, can you tell me the size of your main and jib?

Take care – Frank

**Daniel**

July 21, 2011

Hi There, looks like a great little boat. Is it for sale ? How easy to prepare for trailering?

**Small Tri Guy**

July 21, 2011

I got word from Cole recently that he has sold the boat. He didn't want to ... but it was time. Now somebody new gets to enjoy this trimaran.

**Mélanie Lachapelle**

July 31, 2017

J'ai un Malabar 510 à vendre.....

**Michel Prévost**

August 7, 2017

Bonjour Mélanie. J'ai un intérêt pour le Malabar 510 que vous vendez. Est-il toujours disponible?

**nic**

August 8, 2017

Bonjour Michel,

J'ai également un malabar 17 (510) à vendre.

Je vais le publier sur Kijiji.

Meilleures salutations

**Craig**

November 16, 2022

The boat is for sale again.

It is located in Toronto, Canada

# Sea Kayak Trimaran in Mystic

July 8, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: mystic boat show, sea kayak trimaran, Trimaran Kayak, woodenboat show

## Comments

**Ken Borgers**

February 5, 2012

Joe,

Man, gorgeous boat. Please pass along my congratulations to Pam. Would love to see some videos of it on the water.

I'm loving the audio conversations with Jim Brown, by the way. Spending more and more of my time on your website and outrigmedia.org!

**Brun Piergiorgio**

March 21, 2015

Guardando le fotografie del bel Kayak trimarano a vela, volevo complimentarmi con il costruttore e sapere se sono disponibili i piani di costruzione, ed eventualmente come fare per ottenerli.

Cordiali saluti, e ancora complimenti

**Small Tri Guy**

March 21, 2015

Hi Brun,

The plans for this kayak can be obtained from Chesapeake Light Craft. You can find them at <http://www.clcboats.com>

# Introducing the MOJO Trimaran

July 14, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: mojo trimaran, trimaran building kit, trimaran kit

## Comments

### Stefano

July 15, 2011

Basically I think the same level of accommodation could be packed into a 6.5 metres.. one meter less for better handling when trailering. You really do not need to have an enclosed head and galley on such a small boat, or could have it under the tent providing the third central "cabin" as is a design objective

Same thing with mast: handling a 9.5 metres mast is already a challenge, 11 is way too much. If you need performance in light air, it is much easier to add a rolling screecher and or asymmetrical spinnaker on a smaller mast. If wind is there, sail surface is not an issue: it will go fast enough. A smaller mast and sails also reduce by far efforts and relevant stresses.

Hardwood epoxied parts as partners for akas leave me in great doubt: if epoxy cracks, a large piece of hardwood can produce a hell of a lot of strength and movement, and not necessarily they way you need it. Better perhaps to have fibreglassed ply.

### ian

July 15, 2011

I have to agree with Stefano's assessment of the rig- especially in light of the stated desire for cruising suitability and ease of trailering over speed and racing considerations, such a high aspect ratio sail plan and tall mast seem out of place.

It bears repeating that when choosing rigs for multihulls one needs to keep in mind that the differences in stability, weight, inertia and wave interaction will all be quite different than in a ballasted vessel of a similar size, and that tall rigs can accentuate a multi's natural tendency to hobbyhorse, even at rest with no sail up.

Going with higher tech spar and rigging materials that offer lighter weights aloft and smaller cross sections can certainly help offset these types of problems, but again that seems like the opposite direction from something quick and relatively cheap to build and maintain that will also be relatively tame and predictable under sail, the way cruising boats are supposed to be.

Obviously one solution is for those who don't like it to substitute another rig they feel is more suitable, but it would be interesting to hear why the designer chose what seems to be a very performance oriented rig for something that is specifically not aimed at people looking for high performance.

### Wayne Barrett

July 17, 2011

Hi Stefano and Ian,

Thank you both for your comments.

Firstly to Stefan, one meter less will be a totally different vessel than my intention, sailing is the game and it takes priority of trailing, I agree totally you do not need an enclosed head or galley, in MOJO's case it can be taken out of the fwd cabin as there is more than enough room for storage in the cockpit for these items, the drawings show the accommodation merely as an indication of the possibilities.

Personally I would have the stove as a small camping style that comes with the gas contained within the unit this way it can be taken out and used in the cockpit or used in the cabin if the weather is unpleasant.

The cockpit has been designed with good sized seats with comfortable back support, it is just on 2 meters long I have shown a bimini or dodger at the fwd end this can quite easily be extended to make up a tent and provide the crew with a very cosy extra cabin for overnighting or longer stays, the boom tent has always been a part of the design.

I have been personally involved in trailable trimarans and catamarans since 1986 and have towed many of them from one end of Australia to the other and never had a problem, in the early nineties my own 7 meter trimaran was not a folding type but completely demountable, one mainhull, two floats and two one piece beams plus the trampolines.

without exception I could pull up at the launch site and within one hour the tri would be fully rigged sails hanked on and ready to go, it had a mast height of 11.5 meters, once you set your system in place mast raising is not an issue, the same principal has been used on the other six multis we have racing, the highest rig is 16 meters, again absolutely no problems with the mast situation.

I have purposely kept the rig on Mojo to be easily handled, for instance the prodder is only 1 meter long could very well cope with 1.5 or 1.8, the foot of the main is quite short all this coupled with a small self tacking jib all sail handling is done from the cockpit making for all round fun and safe tri to handle.

Many years ago I built a couple of Buccanner 24's my system of the beams is very much the same and I have had no issue with this type of build I guess it's the detail to attention that counts, I understand your concerns here and I can see some areas where a problem may occur but not in this case.

Hi Ian,

most of your comments would have been answered above, certainly in my own Mojo there will be a composite light weight rig with synthetic shrouds etc. the thinking behind this is to make the mast raising even easier, I am at the top end of sixty years and I will mostly be single handed so I need every bit of assistance I can muster up. At the end of the day I have no problem in supplying drawings for a smaller rig but I do not see any point, look at all of the other popular trailable trimarans that do just the same, as I keep saying set yourself up do it right the first time and you won't have a problem, there are any amount of videos on tri sites that show how easy it is.

With my Mojo if I can't set it up ready to sail in one hour I will give away a set of plans.

Not all in life is going to suit everybody, we all know boating is about compromise so we work out our own pleasures within the boundaries of compromise. Thank you both for taking the time to send your comments and I welcome all.

Best Regards,  
Wayne Barrett,  
Gold Coast Australia.

**Stefano**

July 18, 2011

Hi Wayne...visited your site and found out that the mast is 11 metres or 31 ft... now this is all clear ! The fearful will go with 31 ft (9.4 metres) and the brave with 11 metres :-)

I'm still convinced that 11 metres is way too much of a hassle to move around or to turn tight curves when the boat is trailered but that's life folks, different ideas are welcome.

**Greg**

July 22, 2011

I think this is a nice design and if it had been around a couple of years ago when I was choosing a design to build I would have given it some consideration. Rig size/desired performance level is very much a personal choice and its hardly surprising given the designers previous experience that the rig leans towards the hi-po. Anyway plenty of taller rigs are stepped on the larger Farrier tris all the time.

One observation, this boat is likely to appeal to first time builders who may not have a lot of multi sailing experience and be possibly put off by the tall square top rig. I'd suggest drawing up a shorter maybe non-rotating pinhead rig as an option for the gunkholers out there and showing it as an option on the website. Good luck with it:-)

**Greg**

July 22, 2011

PS. Where in NZ is the first example being built?

**Wayne Barrett**

July 25, 2011

Hi Greg,  
North Island exact site TBA, will keep all informed.  
regards,  
Wayne.

**David Ward**

March 5, 2019

Hi I'm looking for a good small trimaran, looks like this might be interesting, could you acomodate shipping to uk?

**Hugh Grew**

August 8, 2020

Raising and lowering a tall mast is easy as anything. All you need is a good system.

Years ago when I had my 7.80m trailer sailer in NZ I used an A frame system the two ends of the alloy A frame had solid ss pins at 90 degrees to the alloy tubes these pins went into fairleads SS lined fairlead that you normally lead sheets through on either side of the boat and aft of the mast step. The top part of the A frame was welded and a bow roller fitted at the top of the A and through bolted this is where the mast rested while it was being raised. The block and tackle was bolted at one end to the bow fitting and the other to the top section of the A frame.

The sheet was taken back to either port or starboard jib winch and away you went the sheet went through a rope clutch so when the mast was up you locked the clutch with some foreward tension on the mast so it was easy to fit the forestay. Side stays were always attached. This easily done by myself and if a friend was with you it really was a breeze and taking it down was the reverse.

# Brand New "Nugget Trimaran" Design: 22-Foot Coastal Cruiser

July 22, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Matt Layden trimaran, Nugget Trimaran

## Comments

**Andrés**

July 22, 2011

A very nice design!!

**Daniel**

July 23, 2011

I've built trimarans and I don't want to build another. Built a Piver Nugget and sailed it about six years. Looking around for another trailerable tri now. When will this boat be available and what will it cost with a trailer ?

**Small Tri Guy**

July 23, 2011

Best thing to do would be to contact Mike Monies shop and ask them how much it would be to build this boat for you.

**Al**

July 25, 2011

How can I buy plan ?

Regards

Al

**Small Tri Guy**

July 25, 2011

Al, you should be able to contact Lee sometime this fall in order to inquire about plans to build this brand new Nugget trimaran.

Joe

**Patrick McGrath**

August 28, 2011

If it's not a Piver Nugget you should not call it a Nugget.

If you are just naming your particular boat "Nugget" then that's alright.

But to call the design Nugget is only confusing.

Now it's a nice little boat and I like the design, but do the tubular cross arms have water stays. I would not trust unsupported alloy tubes.

**lee**

September 4, 2011

Patrick, so glad you were able to leave your opinion of the name. Thank you for declaring it O.K. to name my boat Nugget. If you don't understand the reasoning behind it then maybe don't comment, it won't change anything. So you don't trust the engineering, fortunately for me the mechanics of alum tube akas were figured out long ago.

Yes, it has water stays. If the only things you can say are negative, maybe you should get a hobby.

**Patrick McGrath**

September 4, 2011

Lee.

I am sorry if I offended you. The remark about the name was just my considered opinion. Plans of the original Nugget are still available.

Regarding the water stays, I only asked that because no water stays are visible in your drawing.

**marvin mc cord**

December 5, 2013

I am looking for a small cruiser for offshore work

**Ken**

February 19, 2014

Hi Joe,

Any update please?

Were the two boats built by Mike? Are Lee and Katie sailing? Did Lee and Matt decide on making the plans more widely available?

Thanks

Ken

**Small Tri Guy**

February 19, 2014



Hi Ken,

Thanks for asking about an update. I haven't heard from Lee in awhile. He will contact me when he is ready to share more.

**Bryan Leeds**

March 10, 2014

September 4th, 2011 at 11:08 pm

I see here that: Patrick McGrath Says: Plans of the original Nugget are still available.

If this is true? Where Can I get them? Thank You, Bryan

**Ken Borgers**

November 22, 2014

Please add me to the list of people who would like to have an update on how Matt Layden's Nugget design worked out for Lee and Katie.

**Nick**

May 11, 2020

Is this really being built ... are there photos? I have a Paradox and would love a faster version of a small boat.

**Small Tri Guy**

May 11, 2020

To my knowledge this boat was built. I haven't got an update from Lee, however, but I'll be happy to post finished pics and related info if they're ever shared with us.

# "Take 5" Tamanu Trimaran Canoe in Germany

July 28, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Gary Dierking, Tamanu Trimaran

## Comments

### Wade Tarzia

July 28, 2011

Nice boat, a functional interpretation of a Tamanu. A purist would say it is not a trimaran but rather a single-outrigger with a "safety ama" as devised, I think, by modern Hawaiian racing outrigger canoe people. However, purity is usually a subjective social construct, and a single outrigger with safety ama is a very useful "in between" kind of tri-hull. I intend the same in-betweenness for my next outrigger having experienced the delicacy of balance sometimes involved in sailing a single outrigger when the ama is to windward. Enjoy!

### Frank

July 29, 2011

Nice job! Looks great and I'll bet it goes great. Some might quibble about the ultramodern sail rig on a "traditional" boat, but I say whatever works best! I'm also guessing a boat this size could handle quite a bit more sail, at least based on my own experience. In any case, I hope you'll be posting an action video. Take care!

### Klaus

August 1, 2011

Action Video ? Ok- You can find 2 youtube videos at my blog:

<http://haifezz.blogspot.com/2011/07/hawai-canoe-take-5.html>

First I also believed the rig is too small and thought about a 12 qm sailing rig.

But thrilling sailing in 3-4 Bf (see video) with my surf rig gave me some doubts.

I made no decision up to now...

So please watch the video and -perhaps- give me some advice. Thank you.

### Stefano

August 2, 2011

Hi Klaus..

### SAIL AND RIGGING THOUGHTS

excellent job. I have one suggestion fo the sail plan: if you step it up, or even keep it this way, make sure you can reduce sail very easily in a squall ( especially if you want to navigate the Baltic, but even the Adriatic in the summer) which I assume is not easily done with the surf rig.

My choice in a future post with pics will be made more evident, but on a shorter trimaran featured here ( nepau) I have a traditional marconi main, with a deep reef, a small jib, adding up to 11 sqm) then a larger genoa 5 sqm on a roller and bowsprit and a 12 sqm gennaker.

The boat can go to windward in strong winds with just 2 sqm jib, or 5.3 reefed main. It can fly the genoa in light airs or with a crew member, fly the gennaker over main and small jib. But then you have a very fast and also unstable planing boat to handle and be prepared for some swimming (this is central Italy, much warmer here :-)

# An Ocqueteau Speed 770 Trimaran Sails Again

August 4, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Ocqueteau Speed 770 Trimaran

## Comments

### Stefano

August 4, 2011

Trimarans in general, and this one with 6 inch freeboard makes no exception, remind me often of a song named "Anything goes"

([http://en.wikipedia.org/wiki/Anything\\_Goes](http://en.wikipedia.org/wiki/Anything_Goes)).

The recipe: take three slender hulls of nomatterwhat material, add a fair amount of sail in any shape you might prefer, tie them together with a couple cross arms of the same or other material, and you'll get a fast boat that's fun to ride.

Add just a tad more engineering to the whole lot and you might even have an ocean passage maker or fancy cruising boat. A little more over that and you can even fold them for increased convenience...

It's very close to being as simple as that with tris, and that makes me love them :-))

### ian

August 5, 2011

Assuming that people use some common sense and keep safety foremost, I'm with Stefano...

There's so much potential to adapt the trimaran platform for all kinds of uses and sailing styles, and it's kind of disconcerting to see that along with the increased acceptance of trimarans in the last few decades within the mainstream boating community there has also been an increase in what I can best describe as the same type of mainstream traditionalist fuddy-duddyness that dismissed multihulls and especially tris as being on the fringe in the first place and has plagued pretty much all mechanical transportation development going back to when "experts" said that the human body would disintegrate if it went over 40 MPH in an automobile, so don't try it.

In the case of this boat it would seem that the weight issue is probably contributing quite a bit to the wet ride, but it's interesting to note that the Sailbird tris which are noted for a wet ride have a hull design that is very much like a traditional monohull, just skinnier. This boat also appears to have very slim beam/length ratios in all the hulls and in other pictures I've seen the main hull bears more than a little resemblance to a skinny, keel-less version of a Cal 20 or Catalina 22, which are perfectly fine old boats but hardly cutting edge.

Not saying that wider hulls would automatically make for a dryer ride or better performance, only that it seems a bit shortsighted to accept the idea this early in the development of modern tris- and it is still very early, imo- that trimarans "must" have long, skinny displacement hulls with more or less traditional sailboat cross sections to perform acceptably, are and will always remain incapable of planing, are best served by the same types of rigs that most benefit monohulls, etc...the inherent stability of the tri platform in some cases negates many of the reasons that monohull sailboats and rigs developed into the more or less standardized shapes that all but a few performance oriented designs stay pretty close to, so it would follow that there are other avenues to exploit if one is willing to take the risk of going out on a limb, design-wise.

So again, keeping in mind that safety is job one, those of us who love these boats and want to have more options available for whatever we may choose to do with them should encourage experimentation and not give in so quickly to notions about what proper trimaran designs "should" feature or look like.

### Eric

August 14, 2011

The Speed 770 is a 25 years old design, and is now more or less considered as a vintage boat. However some owners I know still have a lot of fun ... OK, very wet fun :-))

### john g allen

January 23, 2012

Hi, I have been offered a Speed 770 and would love to contact other owners before committing. I can find little info on the web. Perhaps some kind soul would send me an e-mail and write to me? Regards, Johnny.

### Steve Hanson

February 24, 2012

John, I own an Ocqueteau 770 which I keep/sail in Michigan (Lake Huron). Feel free to contact me at: USNA79 AT aol.com if you have questions. I have fun with mine. Low freeboard so it's best in more protected waters. But I've sailed it in 35+ knots and 6 foot or so seas on Lake Huron and it handled it ok (wouldn't recommend it but it's nice to know if you get stuck in some rougher weather).

Drop me a line. I've had another guy contact me recently through YouTube who also owns one. I've got a couple videos posted there (search USNA79 to find them).

### Jerome

February 17, 2014

Hi Steve (USNA79)

I am a new and happy owner of a Speed 770.

I saw your videos just before buying mine and i guess they've comforted me in choosing this Tri !

Congratulations for you custom Speed, it looks more "racy" than the standard one.

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

I have a different project as i will transform mine into ... a "Kiteboat" !!

It means that i toot the mast and all the sails in order to only keep the 3 hulls and it will be soon pulled by a Kite (a big sea kite)

I am sure this customisation will transform the speed to a lighter missile, with a clean deck (without mast and ropes), and most of all no heel !

You can see some nice project of Kite boats on youtube : type "A Summary of Kiteboat Platforms" for instance to see some examples.

I will try to post some videos and photos once available.

Big hugs to all Michigan sailors !

**Small Tri Guy**

February 17, 2014

Congrats on your new purchase Jerome. Yes, by all means, please take some videos of your boat under sail and share them with us. We'd all love to see your Speed 770 trimaran.

**Christian Monier**

October 26, 2014

Nice paper about the speed 770.

Do you mind if we publishe it on our website ?

And feel free to contact us even we don't have a lot of information about old model.

Chris

**Daniele**

March 1, 2019

Ciao, complimenti per il tuo Speed 770. Anche io e mia moglie Marta siamo felicemente proprietari di uno Speed 770 che personalmente abbiamo restaurato. Oggi navighiamo sul Lago Maggiore (Italy), ma un domani credo che lo porteremo al mare.

Vi terremo informati. saluti

Marta e Daniele

# New Wavelength 780 Trimaran Website (and News)

August 7, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Wavelength 780 trimaran, Wavelength Trimaran

## Comments

**ruben bruyn**

August 14, 2020

how can I buy building plans for the wevalength trimaran. I already have the study plans and information. (pendrive)

**Petef sands**

July 19, 2022

how can I buy building plans for the wavelength trimaran

Peter. Email peter AT purplecowarchitectural.com

# Building the Drifter 17 Trimaran – Interview with Mark Gumprecht

August 11, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: drifter 17 trimaran, Mark Gumprecht

## Comments

### Small Tri Guy

August 12, 2011

For French-speakers — sailor Eric Marechal (in France) sent me the following because he posted info about Mark's Drifter 17 way before I did ...

"Hi Joe,

Did you check out my interviews with Mark? One about the boat: <http://www.nauticaltrek.com/12518-la-construction-du-trimaran-drifter-17-gypsy-wind-par-mark-gumprecht> ...

And one about the mast: <http://www.nauticaltrek.com/12524-construction-d-un-mat-aile-en-contreplaque-pour-le-trimaran-drifter17-de-mark-gumprecht>

Both are in French. Alas, but with a lot of pictures.

Eric

### Stefano

August 16, 2011

Joe.. I'm translating the mast interview. Then on the interview site, there is a lot of debate if it is worth the labour and cost not to buy directly a carbon mast (cost per pound reduction i.e.).

I cannot understand this speculation, very much, given a mast like this will not cost much more than perhaps 200 USD, nothing comparable to an aluminum new mast, not to mention a carbon fiber one. I would only make sure there is absolutely no way in for freshwater or your oume plywood is very likely to rot and leave you in a very sad condition. I'd personally rather experiment with shorter masts, galvanised carbon steel vs stainless, and synthetic rigging to reduce weight.

### bones

August 17, 2011

What a tantalizing little craft!! Has this thing hit the water yet? I would love to see some pics/video. Who would have thought that you could fit a small cabin on a 17 footer! Could a higher performance rig (perhaps something poached from the H18) stand atop this? I like the idea of using Hobie rigs as all the parts are out there and cheap.

wonderful looking boat!

thanks for sharing.

### eric17

August 25, 2011

Gypsy Wind was launched !

<http://www.nauticaltrek.com/12552-les-essais-du-drifter-17-gypsy-wind-de-mark-gumprecht>

### Lee Boon Wang

February 19, 2015

I would like to have the plan for the Drifter 17 Trimaran.

Would you be able to help me link up with the owner?

Thank you.

### Small Tri Guy

February 19, 2015

Hi Lee,

See this post regarding Drifter 17 building plans – <http://smalltrimarans.com/blog/?p=7027>

# Self-Built Mast for Small Trimaran

August 18, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: build mast, build trimaran mast

## Comments

### Stefano

August 18, 2011

Hi guys.. this looks very odd to me indeed.. of course by translating all in first person, the intention was certainly not to steal the merit and credit of the original author and the french publisher. And of course it would have appeared as signed by Mark G. and credit given to all concerned parties. This is why all notes made by me ( the translator) were quite identifiable as translator's notes in brackets.

I ignore to what extent political correctness has gone in the States but translation is another matter really and changing subjects from first to third person has nothing to do with this kind of business. Can you imagine a Shakespeare's tale being translated as " Hamlet wasn't quite sure if he were convinced to be or not to be".. It's Groucho Marx, or Woody Allen ... certainly not W.S. :-))

This is what the occasional translator has to say and perhaps some folks out there are professional translators and can provide their views. Third person please...Please make us smile, trimarans aren't all in life folks :-)

### Eric17

August 19, 2011

Hi Stefano,

I could send you the original text by Mark Gumprecht...

but it would not be that easy, because I had to re-organize everything, as there were many subjects in each email :-/

you can give me your email address (or ask Joe for my address)

about your comment & question :

/ building of the main spar (the central "H" thing) :

"I make a slot in the stringer (the aeronautical term would be "capstrip") for the plywood web. It makes it easier to assemble the spar. Just glue the web into one side, then tap the top on. No nailing or clamping" said Mark.

If you look at the picture of the first model, on buildboats.com 19 feb 2011, you can see the building method was different, with use of clamps or nails to fasten the capstrips on the web. Much easier with the new method, and of course both sides are glued, one after the other.

what else ? oh, styrofoam : it's just the insulation "pink" stuff, not a "du rose" trademark ;-)

and, well, there is already a new § on the page :-))

Regards

Eric

### Small Tri Guy

August 19, 2011

Stefano, you did a great job with the translation! And your contribution is very much appreciated. After receiving your transcription document, I started thinking that presenting the info in 3rd person would perhaps be a better way to direct the focus "on the details" about this mast-making process. In the end, the overall goal here was to help offer some insight into a fascinating part of the boat-building process (for some builders, at least). And you've certainly allowed that to happen.

### Stefano

August 19, 2011

Ciao Eric,

yeah.. stringers.. of course... not battens. Capstrip I'd never heard of, so it would be out of my reach, and forgive me for having left some french text here and there... It must be some kind of inclination to see the styrofoam insulation, if not "La vie", en rose...

French text is OK we don't want to become fussy over this issue ...

For Joe, thanks for your kind words :-)

### Eric

August 19, 2011

salut Stefano,

we have now another translation on the web : on <http://www.pinoyboats.org/forum>, boat design, Lorenzo's 20ft Trimaran p8 ! (I gave the link ... and translations in # 20 !)

I never expected such a world succes :-D :-D

Do you intend to build a small wingmast for your "tri-proa" ?

a+

Eric

### Stefano

August 22, 2011

To Eric ..  
Salut !

Well... no, I'm very much of a recycler when it comes to boatbuilding, and for this sake, I have a beautiful 30 yrs old aluminum mast from a Vaurien, and it's 7 kgs fully rigged. NOw, why bother making a new one ? ;-))

I have a trimaran-fishing kayak project to work at and that will be my building focus for the next future: a full fledged fishing machine.

Ciao, Stefano

**Peter Tatarinov**

August 25, 2011

Hey. Is there somewhere the original photos? In bigger size? Thanks.

**Peter Tatarinov**

August 25, 2011

sorry, read the article again and this time found answers! :-)

**Small Tri Guy**

August 25, 2011

Hi Peter,

As noted, the pics that can be enlarged a bit are at Eric's webpage, which is linked to above — <http://www.nauticaltrek.com/12524-construction-d-un-mat-aile-en-contreplaque-pour-le-trimaran-drifter17-de-mark-gumprecht>

**Chris Goeltner**

January 30, 2019

Hi Mastbuilders,

I am looking for a practical mast design for a 23' trimaran project. Mast length will be 10 to 10.5m. Only a little longer than the project shown here. What dimensions should I use? any other considerations for reinforcement?

Greetings from California  
Chris



# Unique Trimaran Dinghy – Construction & Launch (Part One)

August 25, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: dinghy trimaran, trimaran dinghy

No Comments

# Unique Trimaran Dinghy – Construction & Launch (Part Two)

August 25, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: dinghy trimaran, trimaran dinghy

## Comments

### Stefano

August 27, 2011

Neat job! I love the transparent sail and would appreciate more detail on the mast foot /ama connection.

Love the entirely transparent sail !

As for improving tacking, in such a short boat, try moving weight forward so to immerge the bow instead of the stern, this should improve things.

Cheers Stefano

### David Kagan

August 27, 2011

Stefano:

Thanks for your comments and suggestions on tacking. I like the transparent sail, too, but don't like the windsurfing rig. So, this week I have built an alternate rig using transparent polytarp trimmed with red on the edges and corners and a blue stripe along the reef points. The new rig provides a little more than 100 ft<sup>2</sup> of sail area. The stub mast assembly is totally modular, so I took it off and replaced it with a modular mast box to support a 20 foot wood mast (built in June) for the new rig. The mast box is crude because I want to make sure it works before taking time to make one that looks good. In the meantime, I bought components from McMaster-Carr so that the cross beams will fold to provide a folded width of 7 feet. Those components have not arrived yet. It's dead calm again this morning (there's been no wind since I launched!) so I am waiting for some wind to try this new rig out. The beams are very, very strong. The only drawback I see with them is that paint chips off them easily. I'll be happy to send pictures of the mast and ama details. Let me know how you'd like to handle this. Perhaps I can let Joe F. know it's okay to provide you with my email or vice versa.

### ian

August 27, 2011

Stefano's suggestion is a good one for a boat of this configuration...sadly, one big drawback of light boats with no keel or boards is that they tend to mush out sideways when tacking and lose a lot of momentum in the process- especially multihulls and especially when there's no jib to help pull the bow around (Anyone who has ever sailed a Hobie 14 in less than strong winds will know what I'm talking about). My guess is that with more wind a lot of the problem will correct itself to some degree, but in the end the lack of any point to pivot around can make for less than optimum turning accuracy...it's kind of the same problem hovercraft have.

Personally I'd wait until I had the thing out in heavier airs before going too crazy with the sail area...100 square feet is a massive amount of sail for a boat this size and while it may handle it as far as keeping the thing flat, that much power in such a small boat presents the very real possibility of sailing it under or overstressing things when an ama buries or the boat pitches or rolls more than usual due to something like a gust or wave/wake.

That's one area where someone building a boat like this as its own entity rather than as a quick-build prototype could really dial in performance while maintaining some degree of predictability in big airs/seas, by religiously keeping the thing as light as possible so it can be driven with less sail to begin with...typical sail trainers of this size like the Sabot and El Toro dinghies use 36-50 square foot sails and it would seem that as long as the weight was kept in the same range, a multihull of this size with a far more easily driven hull configuration than a pram couldn't help but outperform those designs using the same sized rigs and could \*really\* outperform them with a more modest boost in sail area than more than doubling theirs.

All that said, I've done stuff like put Laser and Sunfish rigs on 8' Sabots just for the hell of it; even rigged up a 25 HP Yamaha outboard on one once, lol...that kind of thing can be a lot of (wet) fun so have at it; just try not to stop too fast :)

Also if Joe doesn't mind, I'd love it if he could help us connect off list as well, as I have been playing around with similar methods of sheet based hull development for this type of boat and would like to compare notes and pass along some pics and drawings to you as well.

### Small Tri Guy

August 27, 2011

Ian, I'm working on a way for everyone here to connect. Stay tuned. I'll try and email the details to everyone, especially you guys, this week!

### David Kagan

August 28, 2011

Ian:

Funny that you mention your 25 hp Yamaha, as I thought about putting a 15 hp outboard on this and heading out. The beams are too high above the water for the shaft, though. I don't even think a 25 inch shaft could reach the water from the beams. The electric trolling motor you see in the pictures has a long enough shaft, though.

This boat definitely could be lighter. I think the whole thing including rig weighs around 200 to 220 pounds. Other tris in this class seem to weigh about 130 to 150 pounds built using lighter scantlings. All these seem absurdly heavy for a dinghy, but then again there are 3 hulls. In one respect, these boats have 24 to 30 feet of hull, so 130 to 220 pounds is not so ridiculous from this perspective.

One of the things I wanted to do with this boat was to use the same ply materials available locally that I would use in a bigger version. This would allow me to see how these ply products held up. If they failed on a small scale, then I'd want to know that on a small scale. In particular, a local store has 5 ply baltic birch with exterior grade glue and no voids inside that I have ever seen. This ply is 6 mm. It's heavier than okuome (but maybe comparable to other heavier marine plywood) marine plywood, but

it's also very, very strong and impact resistant. You can whack it with a hammer without damage whereas underlayment and other ply would fracture. It finishes very nicely as you can tell from the reflections in my finished hulls. It's also under \$25 per sheet apart from being available locally. Lightly glassed on the outside (a drawback of birch I've read is that it needs to be at least lightly glassed or otherwise protected) and sealed on the inside, I want to see how it holds up to assess if it will work for the larger version. I used the same stuff but 12 mm thick for bulkheads, as this is what I'd use for bulkheads in a larger version.

To see how the baltic birch ply holds up with different surface treatments, one of the outriggers is glassed and painted with Brightsides and the other is only glassed at the keel and then epoxy sealed and painted with Brightsides. One side of the main hull is glassed entirely. The other side is glassed only at the joints. This way, I can see if the epoxy/paint alone protects the birch or whether glass is needed. From what I've read, birch ply can turn black on the surface when unprotected and exposed to water. But others have used this ply successfully with fiberglass sheathing.

This is embarrassing, but I can't recall which outrigger has glass and which doesn't. If one of the hulls turns black, the mystery will be solved. If both hulls stay good, then I'll also get useful information. Right now, everything looks good. I'm leaving the boat outside in the elements, so I'm not coddling it.

Prior to building, I tested two underlayments that were said to be waterproof. These also had no voids that I have ever seen. But the underlayment delaminated extremely quickly in boil tests (a few tens of seconds) and the surface plies delaminated in short order (overnight) with mere soaking tests. I avoided these.

Interestingly, the steel beams don't weigh much and are a small part of my weight premium. It's comforting to have such strong beams as well. There are fiberglass versions of these beams that weigh 30% less. The lighter fiberglass versions give up a chunk of strength in exchange for lighter weight, but the specs for the fiberglass beams are still pretty good for a little tri dinghy and might work. This would shave about 9 pounds. I think the larger version, e.g. 18 foot, would need the strength of the steel beams. But I'd have to take a closer look at the specs. I would worry that the fiberglass beams would shatter suddenly under failure, whereas the steel beams would not fail in this way.

The other scantlings I used are perhaps heavy for a boat this size. I think I could save at least about 60 pounds next time around without having to do too much noodling using 4 mm ply for the hull and perhaps the same or 6 mm for the bulkheads. I estimate this might save about 40 pounds in the main hull and the balance in the outriggers. My footwell sole is 3/4 inch and is supported by two cleats at the ends and three bulkheads underneath. This certainly could be 1/2 or perhaps even 3/8. I might not go as thin as 1/4 or the risk of fracture becomes high. But the area of the sole is small and weight savings to be had here are small by switching to thinner stuff. It's nice to have a sole that an elephant can jump up and down on without a hint of cracking or groaning. I didn't want the footwell to be a source of leaks or failure.

But if you go lighter on the scantlings, you could sacrifice some ruggedness. I've needed the ruggedness on two occasions thus far. I've had an Alumacraft run into me at the launching ramp/dock with no damage. The guy did not even apologize nor did his beer. And to think I used a white and red paint scheme so the boat would be highly visible.

Also, first time on the trailer in my back yard, I tried to get the boat onto the trailer myself using one of those "I-can't-believe-he's-doing-that-and-he-will-end-up-on-Youtube" jigs that failed, of course. The boat fell from about 4 feet onto one of its outriggers. All the weight was focused onto the midship keel region of the outrigger that hit the ground. Fortunately, there was no damage or cracks that I could find then or since. This is the first time that I realized that this boat is pretty strong. As the boat fell and before I inspected it, I thought for sure I was going to end up with a proa. The next day, 4 of us lifted the boat onto the trailer pretty easily which should have happened in the first instance if I had more patience.

A very, very light version of any of the trimaran dinghies could be made using techniques taught by Sam Rizetta in his relatively new book on composite kayak and canoe construction. He's made 18 foot kayaks with decks that weigh under 25 pounds and 12 footers that weigh under 15 pounds, so conceivably his techniques could produce a tri dinghy that weighs well under 100 pounds. His boats also are said to be durable and impact resistant. But the cost of the Kevlar, glass, and resin to make this happen could be prohibitive for three hulls of a trimaran. But maybe not when you take ply cost, fiberglass cost, and resin cost into consideration for a ply hull. I'd have to do a cost comparison. If the difference were small, it might be worth trying. It would be interesting to have 15 pound outriggers and a 50 pound or less main hull not including rig or beams.

Sail area is an interesting area for discussion. I have an 8 foot pram that sails nicely on 48 ft<sup>2</sup> of sail. I tried 70 ft<sup>2</sup> on that little pram and that was really too much in most conditions. I don't think a small 48 ft<sup>2</sup> sail would move this trimaran dinghy very well, though. Indeed, looking at other small trimaran designs on the web, such as those in the 3m class such as the Seaclipper 10 or the new 3m boat from Team Scarab, most use rigs having 65 ft<sup>2</sup> to 90 ft<sup>2</sup> of sail. Kurt Hughes also has a 12 foot tri dinghy in this regime. Almost all of these weigh substantially less than my dinghy (50 to 70 pounds less) and have a narrower beam. Also, the volume of their outriggers is less. In contrast, when I looked at other boats weighing the same as my tri dinghy, they used more sail area, e.g., 120 ft<sup>2</sup> to 160 ft<sup>2</sup>, but they were monohulls and usually 12 to 16 foot in length. So I thought I would try 100 ft<sup>2</sup> and see what happens. I do have a concern that this much sail area could submerge the lee outrigger bow in some wind or chop conditions. This is one important reason why I made the center hull so tall: so the hull had enough volume to substantially avoid being a submarine, particularly when running downwind. I can stand on the outside gunwhale of an outrigger and the boat overall sinks a few inches at most. A lot of this stability is the center hull doing one of its jobs.

Also, even though the new modular mast box built this week is stabilized fore and aft as well as side to side, I'm guessing this could be the first place where a structural weakness might show.

Consequently, the sail has two lines of reef points (i.e., two rows of grommets) so that I can take out sail area in about 25 ft<sup>2</sup> chunks down to 50 ft<sup>2</sup> if needed. Also, this sail can be lowered and stowed much more conveniently than the windsurfing rig with plenty of room left to sit, so I can always motor back. Take the windsurfing rig down, and there's no place left to sit unless you take the rig apart and roll the sail up on the water. Not convenient and the inability to modify the rig via reefing or dousing is one reason that I don't favor it after having used it.

This boat is strong, thankfully, as I've had the chance to see from the two accidents mentioned above as well as from just from sailing it. I'm glad to see this as I'm also testing using low VOC PL construction adhesive and three layers of drywall fiberglass tape to make inside fillet joints in locations that can't be seen such as the bulkheads.

I want to see how strong these are in contrast to epoxy/fiberglass fillets. The cost is about the same as epoxy and glass fillets in terms of material usage, so why do this? It's really fast. It doesn't take long to run fillets of caulk using a caulking gun and then embedded the drywall fiberglass tape down into the fillets.

But, these joints almost didn't make it to the water. 24 hours after I made the first ones, I checked on the joints. They seemed unsatisfactory. Too weak. I could have pulled the bulkheads out by hand. But, I had to get to work and it was 5 days before I got back to the shop to take them out. When I finally got back into the shop, and now that the glue had some time to cure, it was a totally different story. The joints were very strong. I grabbed one of the outriggers by a bulkhead and shook it hard. No creaks or groans. A few weeks later, they were even stronger as the fillets were now very hard yet resilient and hard to mar even with tools. So, it seems if you make one of these joints and test it 24 hours, it will fail. But 24 hours is not enough time for this kind of glue to cure up. You need to let the joint set up for a handful of days to get a better picture of whether the joint is good or not. I've since found out that the glue hardens somewhat fast on the outside but can remain gooey inside for an extended period. But when the whole thing hardens, the stuff is strong. So, for a small dinghy, I think this kind of joint works well but I ended up doing the fillets in two stages and letting the first stage have several days to cure before doing the second. While letting the first stage cure, there's other building tasks to tend to so that progress still can be made. Even with making these in two stages, it's still a fast way to make fillets that are very strong if given enough time to cure.

The drawback of the adhesive is odor. The low VOC stuff is better than the regular stuff in that the regular stuff stinks way, way more and foams and bubbles way more. The regular stuff is about half the price of the low VOC stuff, but it really stinks for a long time. I would not use the regular stuff for this purpose for these reasons. Even with the low VOC stuff, I had to leave the shop door open during the day for several days to let fresh air in. I probably would not want to use this stuff without adequate ventilation, and I wore a respirator mask in the shop when using it and until the stink was totally gone and then some. This is probably not something to use in the cold winter when the shop has to stay buttoned up. The adhesive is also thick. A cheap \$3 caulking gun is not suitable. A better unit that sells for about \$19 at Home Depot works well. Also, if you don't use all the glue in your cartridge, just set the cartridge on the shelf. A small plug near the nozzle outlet hardens to protect the inside contents. Next time you use the cartridge, you can squeeze out the small, hardened chunk and have fresh glue to dispense again. I've left cartridges sit for weeks that still worked again this way. So, there's little waste.

Would I use the low VOC stuff again? Definitely if it's not the middle of winter so I can air the shop out. And if I can work on other tasks for a while, perhaps a month or so, before closing up the compartments with a deck or the like. Will it be strong enough to work on a bigger boat? Unknown. I might try using this glue to make fillets inside one of the outriggers on the bigger tri version. If the glue fails, only one outrigger is compromised. I think it will be strong enough, though.

**Stefano**

August 28, 2011

Yes indeed Joe can provide you with my mail address.

100 ft of sail seems a lot, but if you can reduce it, perhaps it's manageable. I'm putting a maximum of 24 square metres on a 14 ft trimaran which is close to 258 sqft, but the sail is split in main, jib and gennaker. The main can be reefed by one third, the jib rolled and the gennaker lowered in very little time, leaving a mere 6 sqm, i.e. 25% of maximum surface. To me it works.

I have just seen this week a batten-less windsurfer rig. It could be made reefable along the mast axis like in hobie mirage adventure tri and /or in cruz ketch topper dinghy masts. Check on those, very handy system to be out with too much sail and reduce in very little time.

**David**

August 28, 2011

Stefano:

Where did you see that batten-less windsurfing rig? That would be interesting. The Hobie Bravo has an interesting roller furling main with battens that actually roll up as the main sail is furled. The sail is just under 90 ft<sup>2</sup>, which I bet would be very suitable. The Bravo weighs 195 lbs (88kg) and has a beam of 4.5 feet (1.3 m) as a reference to how sail area is matched to dinghy size. I looked for a used rig of this type but was unable to find rig alone. I'll have to check out the cruz ketch topper dinghy system and the mirage tri system. Thanks for the info.

**ian**

August 28, 2011

Hi again David,

Thanks for the detailed response, it's very enlightening and you seem to be well aware of the various potential issues involved with the various experiments you are trying, so it's all appreciated as good general knowledge for any builder of this type of boat.

While many traditionalists might dismiss some of your methods out of hand as far as the hull shape development and minimal framing methods you are using, I have come to the conclusion that while you don't necessarily want to throw out the entire history of boat building technique, when designing modern multihulls it is well worth considering just how much of the traditional methods is beneficial and what tradeoffs are involved...

Your heavy duty footwell sole is a good case in point- having a solid spot to jump to/from makes all kinds of sense, but in the case of something like an ama on a tiny tri like this, traditional deck strength considerations might become somewhat moot if the thing is going to sink with little resistance the second someone steps on it...same goes for the ama deck shape itself; fairly flat decks are pretty crucial if you are going to walk on them but a highly crowned one might not only save build time and framing complexity on a boat this size developed from sheet goods, it might also help to discourage people from jumping on it in the first place if it is built very light.

This is of course how things like skin on frame kayaks and ultralight rowing shells get away with using paper thin hull and deck sheathing- they don't need more than a cover to keep water out as nobody is going to walk on the deck in normal use...and in the case of the eight man shells, with carbon fiber hulls they are weighing in in the 210-220 lb range for a 60 foot long boat...even a shell in FRP like the Alden Star has a 21' hull that weighs 45 lbs all up, so there's obviously a lot of room for extreme weight savings without getting too exotic materials-wise, if a person is willing to exercise some degree of caution in use.

In the case of a tiny tri, a skin on frame (or hybrid of SOF and sheet panel) approach could yield some pretty sophisticated shapes for amas and even main hulls at minimal cost, and could be set up to use the internal framing that the stringers bend on as a major part of the crossbeam/hull/ama/standing rigging connecting structure and

could thus create significant weight and material cost savings by not requiring major parts of the hull and deck sheathing to do much more than keep water out.

Interestingly enough, this type of idea is at the heart of not only ancient kayak design but a primary concept in aeronautical engineering as well, which gets to the point that in some ways, modern trimarans share more engineering considerations with aircraft than they do with the traditional wood planked hulls that guided the development of traditional boat framing...one of the biggest ones being that excess weight not only hampers general performance, it can actually create a craft that is weaker in use than something that is lighter and might intuitively seem less robust.

As far as crossbeam materials, there are some aircraft aluminum alloys that are not only very strong and resistant to deflection but can sometimes be had for a fraction of their retail cost at places like industrial salvage yards and as scrap at aircraft manufacturing facilities...you might actually \*want\* to introduce some flex to the structure to help dissipate spikes in stress loads generated in a turbulent seaway...again, something the Eskimos figured out pretty early on and that keeps the wings of airliners from snapping off.

Another interesting avenue for anyone building a larger boat would be repurposing some street light pole or traffic signal arms (aka truss or mast or davit arms), many of which come in composite and aluminum and are built for both high strength/stress loading and 24/7/365 exposure...and are often designed with very pleasing tapered curves that look for all the world like someone swiped them off a high performance trimaran-

<http://www.tapcosignal.com/graphics/poles/arms.lighting.gif>

<http://skp-cs.com/mastarms.asp>

I doubt they are very cheap brand new, but I've seen them around on the salvage market-

<http://tdsurplus.com/ItemsA-B/Arm.htm>

food for thought...

Ian

**Michael**

August 30, 2011

Hello David,

very nice boat! Is the LOA 8 feet?

I am looking for a building plan of a 8' trimaran.

Do you sell plans of this design?

Thx!

Michael

**David Kagan**

August 30, 2011

Michael:

Thanks for your comments. The LOA is just under 8 foot, as the length is one sheet of plywood following a curve that is 8 feet long along the curve. There are no plans as I pretty much built it as I went, having just the paper models to work from along with an idea of bulkhead placement, deck beams, etc., in mind. I have not yet had the boat and any rig out in any real wind, so I can't fully advise yet if the performance is what I'm hoping for or whether I would recommend the design to others for sailing.

The new rig is finished, so I hope to be on the water this weekend to test it out. If I have good wind, I might go out with both the new rig and the windsurfing rig for a comparison. One thing that I can say, that I also said above, is that the side seats are very comfortable and make the boat seem bigger than it is.

The Seaclipper 10 is a proven excellent design that would be a good small tri to build.

# Seaclipper 20 Trimaran Built at the WoodenBoat School

August 29, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Jim Brown, John Marples, Seaclipper 20 trimaran

## Comments

### Wade Tarzia

August 30, 2011

I am glad they finished so much work with a relatively small class. Brown and Marples must have really motivated them! I hope Jim found all well at home after the hurricane.

### David H Seastrom

September 2, 2011

This was a tremendous class. Jim, and John whipped us into shape very quickly, and the group took on a dynamic of it's own, as singing while you work became part, and parcel of the project.

The shop staff at wooden boat had (graciously) prepared some plywood scarf's for us that were quickly rejected by our intrepid leaders in favor of butt blocks. So we began the boat mid morning of the first day, from scratch.

Following the example of our leaders; we worked hard, enjoyed each day, took the weekend off, and launched on the final day of class with plenty of time to build a cradle to facilitate trailer-ing for the new owner (a fellow class mate).

It just don't get better than that !

David H. Seastrom

### Small Tri Guy

September 2, 2011

Hey David, thanks for sharing about your class experience. Sounds great. I wish I could have gone up to Maine in order to see it firsthand ... maybe even get my hands dirty :-)

### David H Seastrom

September 2, 2011

I hope that other members of the class leave their own comments, so I will offer only a brief word about "Mice nuts".

The origin of the term began as a comment from John in regards to student concern about perfect joinery; as in ' It will be fine, it's mice nuts'. This descriptive term became an instant hit amongst the class mates, and we adapted it to a wide verity of boat building applications.

John posted a name the boat sheet encouraging anyone to propose a name. When Robin, a class mate and team leader, chose Mice Nuts, massive approval amongst teachers, and class mates insured the name choice.

David H Seastrom

### Small Tri Guy

September 2, 2011

Ahh-haaa, the revelation ... the insider secret with regards to how this trimaran was named has now come to light!

Thanks David

### Robin

September 6, 2011

John and Jim are awesome teachers. Their energy kept us motivated all week. We wasted no class time as they planned that we not epoxy anything until the last hour of the afternoon and then epoxy everything that needed it. Then we left. Dave and Phil were the primary singers, and their singing continued in the campground after class.

I am happy to report that we put Mice Nuts on the trailer last Thursday, and I believe she is on her way to Florida.

One slight error in David's comment-I wasn't any team leader. I just wanted to get that boat in the water.

I think Jim and John might come back and teach another tri class next year. You can find out which boat they plan to build on thewoodenboatschool.com when next year's catalog comes out in December.

Robin

# Drifter 17 Trimaran Launch Photos

August 30, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: drifter 17 trimaran

## Comments

**David Kagan**

August 30, 2011

Mark:

I was following your construction posts with much interest as you built your Drifter. The tri looks great. Congratulations on your launch.

**Stefano**

August 30, 2011

Beautiful, elegant, proportionate, wonderfully built... what else ? ! ? :-)

**Peter Simons**

August 31, 2011

Hi Mark

Well done she is a beauty. I'm sure that we are going to hear more once u get used to sailing her. Of course the million dollar question is are u going to make the plans available for sale.

Cheers

Peter

**Small Tri Guy**

August 31, 2011

Hi Peter,

To my knowledge, no plans will be offered for this boat. It's a difficult one to construct and the detail required for both plans and Q & A support would be very high.

**Brian Sims**

August 31, 2011

Hey Mark,

Also following your progress and WOW, nice job! This would be the perfect size for me and my wife...looks fun. Hopefully you will post some You Tube videos of here sailing!

Brian

**Eric17**

August 31, 2011

After the emails I had from Mark, he will offer plans, but later :

on the 28/04/11, he wrote indeed :

[quote]I didn't design it to sell plans, it was just what I wanted for myself.[/quote]

but the 28/04/11, he answered to my questions:

[quote]I didn't say I wouldn't do plans, just that I didn't design the boat with that in mind. I already have a guy in South Africa who is interested in building one, but I told him I wanted to sail mine first to see how everything works out. I would just do basic drawn plans, not with a computer. But I have taken lots of pictures, and would include them with the plans so people could see how things go together. This would be aimed at the more experienced builder.[/quote]

With the "World Buzz" about his boat, I believe he will sale plans, with some restrictions : this building is for experienced people...

**Small Tri Guy**

August 31, 2011

Hey Eric ... if this is true then you've got "the scoop" brother :-)

If plans are offered for this boat then it'll be important for a plan-buyer to know ahead of time if a certain amount of 'consulting time' is going to be offered for follow-up Q & A (or not). Boat designers usually assume that boatbuilders are going to contact them with further questions after buying a set of their plans ... so they figure that assumption into the price. A plan seller doesn't HAVE to do this, of course. But it's always good for boat plan buyers to understand what does and does not come with a set of boatbuilding plans before making the purchase.

As you've already noted for this sailboat ... it would be a project for more experienced builders. But if Mark eventually does offer plans for it, then it's going to make a certain number of guys very happy, I'm sure.

**Mark Gumprecht**

September 1, 2011

I appreciate all the kind words and interest in the Drifter 17. I think most of you out there would laugh if you saw the plans I used to build this boat. I'm a hands on designer, and most of the details are figured out as I go. So there would be a lot of work to do to make plans most people could follow. I did take lots of picture, which is very helpful. I'm string at anchor in a beautiful little cove on a local river, having my breakfast as I write this e-mail. That's what this boat is all about.

# Little Maora Trimaran Sailing in the UK

September 1, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Maora trimaran, Nautylys, Rotoplus

## Comments

### Stefano

September 4, 2011

Landing as described, full power on sand and shingle, can be done with any well built – solid enough – boat. I do it every now and then with my dory-shaped tri ( 3/8 ply epoxy fibreglassed on the bottom).

As opposed to what Richard has to say here, fiberglass and wood can be landed the very same way, and eventually puttied with some fibre-charged epoxy, sanded and return as new if damaged, while roto molded polyethylene will have perpetual deep scratches that for sure will give a coarse bottom surface that will stay that way forever. Everyone that owns a rotomolded kayak knows how much this can hamper the boat's ability to glide in the water, otherwise why would regatta sailors be so keen in fairing and polishing the hulls ?

The only way to restore polyethylene is to melt it and mold it back again, something that boat owners lack the capability to do.

As for the new rig, you can build or have somebody build a solid mast extension that would fit into the present hull, or, carefully build some carbon or epoxy fibreglass "lipped cup" that would accept the new mast section, enlarge the hole on your hull, and rivet and glue ( with some special poly-ethylene compatible glue) the "cup" to the hull, perhaps with a big washer of the same material on the lower side of the hole, with rivets pulling the upper and lower parts together.

You may look on you tube how rod holders are installed on PE kayaks for inspiration.

### Small Tri Guy

September 4, 2011

Although I don't know for sure, I've been told there is a product from 3M, and also one from West Marine Inc., that may bond well with PE in order to fix scratches on such hulls. So there may be some hope when it comes to repairing PE hulls that become scratched. Perhaps others may be able to offer some specifics with regards to this.

### ian

September 4, 2011

Hi all,

Not sure about the 3M/WestMarine stuff Joe mentions, but having worked in the printing industry I know that one secret to getting stuff like ink/paint to stick to PE and similar plastics used in bottling/packaging of stuff like shampoo is some kind of surface treatment either by direct flame or corona discharge.

The latter is pretty much impractical for an entire boat, and the former carries not just the risk of melting the thing beyond repair but also the risk of actually causing the surface to get more glossy and have \*worse\* adhesion qualities.

That said, some people have had decent luck by mechanically removing any larger burrs and fuzz with something like sandpaper or a file or even a disposable razor, and then using a heat gun or torch to get some of the gloss back as described above- just keep in mind that the margin of error is very tiny.

But generally speaking, unless it is specifically treated for adhesion you pretty much can't get anything paint-like to stick to the stuff, or stay stuck for long.

The Krylon "Fusion" product line claims to produce "a superior bond to all types of clean, dry plastic surfaces including ABS, polypropylene, polyethylene, PVC, vinyl, resin, and even ceramic, glass, tile, wood, metal, wicker and other hard-to-bond-to surfaces"...

I've used it for things like switch plates and toilet seats and it's impressive stuff, but I suspect that in the case of roto molded PE "a superior bond" may mean that it peels off in sheets after weeks rather than days.

As for this boat's design, one aspect of it that I like a lot and makes sense for something this size is the way they developed a cockpit of sorts without using a traditional foot well or deck seating, both of which add a lot of build complexity and weight and in the case of a foot well or larger cockpit add the problem of swamping/bailing the thing out if you take on water as spray, or capsise.

Since the basic framing layout of crossbeams is something of a given, using that as a basis for adding seats, coamings and spray shielding in this style to could be pretty easily achieved even with hulls that otherwise couldn't accommodate a traditional cockpit due to size or structural restrictions...if you wanted to go really light, much of it could also be done using lightweight wooden or aluminum frames and a suitable fabric.

### Tony

April 5, 2016

Is this still made? Looks like an awesome little hire tri.



# Incredible X-Factor Trimaran Power Boat in Australia

September 7, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: X-Factor Trimaran

## Comments

**Nigel**

December 11, 2015

loved the site and design...are build plans available??

**calno mangum**

February 17, 2018

anyone find out if build plans are available?

# More On the X-Factor Trimaran

September 12, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: X-Factor Trimaran

## Comments

**Stefano**

September 12, 2011

I'll share my 5 cents.. An italian traveller by motorbike as he describes himself, set up a blog. People that are supportive of his travelling and reporting, pay one tank fill or contribute as much as they wish. He collected quite a few thousands euros just for this sake. I'm sure you can do better with your social project and boat.

If you're curious : <http://www.partireper.it/>

# Jim Brown Appearing at Sarasota Windrider Trimaran Event in October

September 13, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: windrider trimaran

No Comments

# Nicky Cruz Explorer Trimaran Building Continues

September 13, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Nicky Cruz Explorer trimaran

## Comments

### Stefano

September 14, 2011

Set aside the length, 22 ft, I see little in common between this tri and the Farrier 22: not ama or main hull shape or buoyancy, not the building material, not the foldability... At its very best, this tri can compare with Farrier trailertris 680 (not bad at all, but better main hull design).

As for sailing performances we are all looking forward to those.

### Small Tri Guy

September 14, 2011

Good points Stefano. Perhaps instead of saying the NC Explorer is "a model that offers comparable features" to those of "an F-22" ... it would have been better to say that its "a model that offers similar BENEFITS to an F-22."

As an aside, I'd rather have a small tri built this way than in total fiberglass. The upfront cost-savings during the building process is very attractive. Although an F-22 would surely yield a higher "return on investment" on the back end.

### Greg

September 15, 2011

Stefano can you not see the differences between the TT680 and the Explorer? The Explorer has a significantly narrower waterline/beam ratio, much bigger floats and weighs about 2/3rds of a TT680/720. With the similar size rig it has to be faster. It also has a sensible interior for two as opposed to a bunch of tiny bunks for 4. two advantages the 680 has is it will fold in water and carry a bigger payload which is great if those are required attributes.

I think the reference to the F22 in the original post was unfortunate as it gives the impression of a direct comparison which i am sure is not intended. The F22 is 23' loa vs 21 and is in many ways a more sophisticated design, aimed at a 'higher end' segment of the market. However the power to weight is similar between the Explorer and the smaller rigged F22, so it would be reasonable to expect similar performance potential in equal circumstances.

A big difference is in cost. The cost to build my Delaveau 25 (non folding) tri platform (hulls, beams, floats, joined), painted with 2-pack and antifouled will come to around 13k NZ which is less than the current cost of a set of F22 beams, mounts and folding kit. Given the difference in materials I would expect the Explorer to come in around 2/3rds the cost of my boat to the same stage sans rig.

In the current economic climate I think its debatable whether spending a lot more money to achieve what might otherwise be accomplished on a tighter budget will automatically result in a greater return on money spent come sale day.

### Small Tri Guy

September 15, 2011

Hi Stefano & Greg, to clarify about the comparison to the F-22 ... it was mostly about "general" size and "intended" sailing performance. Greame intended for the boat to be a fast, fun daysailer / weekender. So I look forward to hearing about that in the future. And Greg, you're right about how wrong it is to make assumptions about the resale value of any boat in this economy.

### Greg

September 16, 2011

Hi Joe, yeh, I totally get what was intended and I agree for the average sailor the general utility is similar, however some things can be interpreted too literally. The German explorer will probably hit the water before mine and I'm also looking forward to seeing how she performs. BTW i think Ian farrier designs fabulous boats, his new 8.5SR makes me drool (speaking figuratively of course not literally :-).

### Stefano

September 16, 2011

Hello to all...

I think here we can agree at least on one subject: the comparison with the F22 is misplaced, and also to the earlier TT 680 and 720.

Design objectives and features are not comparable (as a matter of fact, this debate here speaks very much in favor of having a separate section where to discuss design features of tris, and contributors should be encouraged to state those clearly as article-headers.. such as fast week-ender, and cost / BOM/Labour etc).

As for the hull features. I quote: "The Explorer has a significantly narrower waterline/beam ratio, much bigger floats and weighs about 2/3rds of a TT680/720. With the similar size rig it has to be faster."

I am very simpatetic to a design having such objectives - especially within a tight budget and closer to amateur construction, like plywood is... but ask myself if a narrower hull will have sufficient buoyancy and planing surface aft to effectively deliver the benefits of a large rig.

My impression, that comes from sailing my very own tri hull (Nepau has a dory main hull with a 1:10 ratio at Fwl) and from looking at the hulls of the Virus magnum 18 and 21, or weta, besides F22, is that the shorter the hulls, the better is to provide a wider beam/length ratio, to move it aft, and give an adequate angle to provide lift and deliver planing hull speeds.

Otherwise, just like my hull, the increased power will probably be very fine in light airs, but othert than that, it will mostly help dig a bigger wake hollow aft.

Then one other question: is there any planning in making the amas retractable with a sliding system, like virus boats ? I would be very interested in the plans.

**Small Tri Guy**

September 16, 2011

Great question (about the folding system) Stefano. The designer, Graeme Delaveau, created it to be LOW COST, and specifically to work in harmony with ... and specifically for ... this particular design. To my knowledge, it is just that — a folding/hinging system and not a sliding one. The amas will be able to fold down and tuck in underneath the main hull. The fabrication cost (for a self-builder), however, was meant to be well under \$1,000 (US) at the time it was designed.

**Stefano**

September 16, 2011

there must be a zero missing in your figure .. unfortunately :-)

**Small Tri Guy**

September 16, 2011

No Sir ... under \$1,000 for this folding puppy :-)

**Stefano**

September 17, 2011

well for that money.. anything goes ;-)))

**sooth**

December 2, 2011

Doesnt compare to a Farrier in price, fortunately.

# Unique Sailing Kayak Trimaran From Germany

September 16, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: sailing kayak, segel kajak, segelkajak

## Comments

### Stefano

September 16, 2011

Great stuff! Here the designer states quite clearly he is a sailor, not a paddler... However, this being a sailing kayak, it would be nice to see it in a folded/paddling configuration.

More detail on the use of the hull without the sailing would also be interesting.

Last point: what the prices for the whole and eventually for the amas and folding rig? My German is weak too, and could not see those on the site.

### Stefano

September 16, 2011

<http://www.tretkajak.de/fotos/index.html>

I had missed in the German site, that the paddling configuration is a completely different stance. This second paddling/peddling configuration by the Polish/German designer is to me by far more interesting. It seems an excellent method to propulse small trimarans or any light boat for this sake...

An ideal retrofit to many light boats. Any comments from other readers or designers on installing a pedal-propulsion on a small tri? I think it would be very useful in inland waters where internal combustion motors are banned and where the weight of batteries for electric motors would be impractical. Thanks, Stefano

### Wade Tarzia

September 20, 2011

Interesting — a stay-sail rig. These tend to be under great tension (and the hull is under great strain too), but perhaps scaled to this size the tensions are not so bad — the bipod mast is an interestingly simple solution, since otherwise the mast would need its own wire bracing? Certainly the clean flow over the leading edge of the sail, besides its lift when off the wind, are welcome attributes. Glad to see this rig being tried.

### Henrik Edström

September 24, 2011

Being a happy owner to the Segelkajak P 4,9 I hereby can certify that this really is a funny boat to own and to sail. I sail it in lake Mälaren near Stockholm where I live. In my opinion this boat is a primarily a light wind vessel as it is very sensitive to hard gusts and as the floaters quite easily dig deep into the water. Maybe the floaters should have been designed longer/bigger??? But that is of course also a matter of sailing experience. By reducing the sail area this problem is solved in normal winds (< 10 m/s). The main disadvantage that have occurred to me is the difficulties to turn the boat when tacking (like most multi hull boats). To complete the turn you very often have to use either the rudder or a paddle (that you always should keep with you in this boat). But that might of course also be a question of my lack of sailing experience. One should also take in consideration that the ride with this boat might be quite wet even if the sea is not too choppy. I'm impressed and satisfied with the foldable outriggers — something very useful and a main advantage compared to the Triak. The adjustable sail works very well as well as the mast and rig. Well done, Mr Petelski!

### Stefano

September 27, 2011

To improve tacking:

Lean on the wrong side (the side in the direction of which you are turning) to set free the windward ama. This should help.

Also, try to put your weight slightly forward or put 3-5 litres of water in plastic bottles on front of the boat. This should change things dramatically.

### Henrik Edström

September 27, 2011

Ok. Thank you. I will try this next time when I'm out sailing.

### Lou

September 6, 2015

Looking for info on the segal trimaran kayak or others like it.

### john allsop

May 27, 2017

It appears that this sailing kayak was never made available for purchase by the public which is a shame. It has a few resemblances to the TRIAK which is now available again from the USA.

### Small Tri Guy

May 27, 2017

I think you're right John ... the web domain for this boat now appears empty. Such a shame. But a concept that other persons might be able to pick up and possibly develop.

### John Allsop

December 2, 2018

What a shame no one has been able to produce this sailing kayak with bigger pontoons as that appeared to be needed. I would have bought one or two. I have bought an Hobie tandem islander.

**Nikos Apollonio**

August 12, 2020

I made a 20 foot 4 person tri based on this remarkable boat...2014. Needs a few refinements but I love it. email for photos.

**Small Tri Guy**

August 12, 2020

Nikos, have we featured the 20-footer that you reference above on this blog yet? If not then I'd love to post pics of it. Let me know :-)

**ronald s treshan**

October 16, 2021

how much

**Small Tri Guy**

October 16, 2021

Just noticed the SegelKajak.com site is up for sale.

The small boat market is very challenging.

**Tran Trung Nghia**

November 26, 2021

It's necessary to have a video of this small tri in sailing status in different weather conditions through which everyone will see all good and bad aspects of this tri .

# Seaclipper 20 Trimaran Launching at the WoodenBoat School – Audio Interview with Jim Brown

September 22, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: Jim Brown, Marples trimaran, Seaclipper 20 trimaran

## Comments

**Larry S**

September 26, 2011

It sure would be great to see one in person. Maybe we can talk Jim into bringing one to the Wooden Boat Show in Mystic next year.



# Little Wing Tandem Sail Trimaran – Audio Interview with Zac Warren

September 30, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Little Wing Tandem Sail Trimaran

## Comments

### Alex

October 7, 2011

This is a really nice looking boat, and like the Weta a big step in the right direction, but I'm left wondering why the boat is so narrow and the sail is so small. I know that fineness ratios matter, but my understanding is that multihulls should be as close to square as possible. This boat has a 12 ft beam and 127 sq. ft for main and jib combined. The WindRider 17, hardly a hot boat, is two feet shorter, has the same beam, and carries an additional 20 sq. ft of sail with the optional jib. The Weta is six feet shorter and carries approximately the same sail area. It's also much closer to square – 11 ft wide. The Inter 20 catamaran, which most certainly IS a hot boat, is the same length, much narrower at 8'6", and carries 246 sq. ft of sail – almost twice as much.

Warren claims that this thing is fast (and I'm sure it will be faster than the WR 17, which weighs 400 lbs.) but I don't see high performance in the numbers. Am I missing something? Why isn't the sail 50% bigger? Why isn't the boat five feet wider? When is someone going to make a little tri that is cheap, fast and seaworthy in big seas?

### Ted Warren

October 17, 2011

The extreme light weight, 118 lbs for 20 foot tri, allowed me to use a smaller sail plan to get to the same Bruce number (power to weight ratio for a sailboat) that I wanted in a sport tri. This is called spiraling down. As the boat gets lighter you can use lighter and smaller components, and the boat gets further lighter. The relatively small sailplan (it certainly doesn't feel that way) keeps the center of effort of the rig lower to the water and allowed me to make the boat narrower for the same wind range. Again, the beams become lighter, the mast lighter and the boat much lighter. Comparing individual numbers to other sailboats is not as useful as looking at the entire design.

### Morris

October 17, 2011

Hi Alex, maybe you don't know that the main hull of this jewel is a kayak: a wider boat is counterproductive for both paddling and sailing.

But I think it's more than a sailing tandem kayak: a magnificent trimaran that deserves the first place in the "small trimarans" classification. I don't have words. The job done by Ted and Zac are incommensurable like the pleasure I feel when I see these jewels (and especially my little wing 15.5 sail).

I cannot imagine the pride of its designer: when you have this type of magic touch, you thank god for giving it to you.

Maybe you'll consider me a foolish: I'd be happy to try this new little wing tandem sail but I'd especially be proud to meet TED WARREN (unfortunately, I live in Italy and I can't meet one of your US pioneer).

Weta, Windrider,.... are not comparable with Warren's sailing boats. I will exchange two of them for 1 of warren's sailing boat.

Maybe an increment of total sail area is possible on 15.5 and tandem sail, mostly because it's widely used in light airs and a little less in rough sea/strong wind.

Ted, you are a pioneer. A lot of people will imitate you.

P.S. I want to let you know too that the mainsail has one reefing point.

### Alex

October 18, 2011

Thank you both for the great responses!

Morris – by width I meant ama to ama. The extreme fineness of the actual hulls is I think one of the boat's coolest features. Great to hear that you like yours so much. I'd love to hear more about your experiences sailing the LW solo, particularly what it's like in heavier seas.

Ted – thanks for the explanation. There is so little about information about this design on the internet that it's hard to know much about how the boat handles. Sorry for my crude comparisons to the other boats. It occurred to me a couple days after posting my comment that I had seen a cockpit video of the LW solo – it was this one:

<http://www.cruisingworld.com/sailboats/boat-reviews/video-warren-light-craft-sailing-trimaran>

The boat is clearly hauling ass. It also occurred to me that tacking a wide cat is a real pain, so there's something to be gained by not having a square boat.

Again thanks to you both for your responses. I look forward to seeing more of this boat and hopefully getting a chance to sail it someday.

### Mark

October 28, 2011

As Warren states so well -less weight allows the whole rig to be downsized. But I think there is much more to be said for light weight. The amount of time a boat gets used is inversely proportional to the time and effort to get it on the water. And I think Warren is wise to go with a fast upscale boat that keeps your butt planted low and safe.

There are loads of options for fast, tipsy, ballast shifting small boats, and they all take too much skill and athleticism for broad market appeal. And honestly, we all know small sailboats are great fun, but don't most guys with the money it takes want to be seen in something classy? And not hanging off the side of it and crawling around.

They should be comfortably in control -with a snifter of brandy perhaps.

### Eric

November 19, 2011

Can the kayak be paddled when it is rigged to sail or do the lines/beams get in the way?

# Strike 16 Trimaran in Miami Almost Ready for a Dip in the Water

October 4, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: richard woods multihull, Strike 16 Trimaran, woods 16 trimaran

No Comments

# Cross 24 Trimaran On Lake Erie

October 6, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Cross 24 trimaran

## Comments

**ian**

October 7, 2011

I love the fact that you declare your love for the boat not once but twice...I totally get where you're coming from; it's just so perfect at doing what it was designed to do that once you've spent time in/on/around one you kind of get the bug.

It's neat to see one of a relatively recent vintage (at least in the entire history of the C24 which I think goes back to 1964 (?), and also that people in the middle of the country are enjoying them as well.

I think the seahandling you describe is no accident, Norm's boats were pretty much all designed to operate in the coastal areas around SoCal, which are generally mild weather-wise but can become very demanding at times, and quickly. The keeled tri I believe was part of that idea- with reefs and rocks and currents from big tides and kelp and the like part of getting around even on the calmest days, you really want a sailboat that can perform to windward and isn't fragile when it comes to possible beachings or short seas or other stressors.

I never had my boat out in any truly serious weather conditions, but I certainly drove my C24 hard and met enough large ocean swells, Navy ship wakes, confused tidal chop, etc. to know the feeling you describe of knowing that the thing is going to meet everything that comes its way in a safe and stable manner.

As for the tacking, tris in general aren't great and that design isn't much different...one thing that may have affected yours is the loss of some sail area behind the CLR when you raised your boom, if indeed you cut the sail down to do it.

I always ran my C24 with about a 110% headsail and in all but pretty steady winds I'd usually need to do some backwinding of it, but paying attention it might only have been a second that the jib actually needed to be used, if that.

I personally don't think that needing to use such tactics indicate a design flaw any more than the fact that a motorcycle won't stand by itself makes it inherently "bad"...you just need to use different techniques to get the most out of any machine, and the benefits of the keel/rudder setup on these boats is well worth having to use a bit of patience and maybe some chafe guard as part of tacking, sometimes.

Anyway, there's a few pics of my old boat on this site a few posts back, and I know there's at least one other former SD based C24 owner who has posted here and there's a number of others who have owned various sizes of Norm's boats and even sailed with him...all of whom also pretty much love their Crosses.

**Tim**

March 21, 2015

Bill,

I am looking at possibly purchasing a cross 24 as well and would like to know about any issues you've had with the boat now that you've had it for a few years. Still love it?

Tim

# Sliding Aka System for Small Trimaran

October 7, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: diy trimaran, sliding aka, small trimaran

No Comments

# WindRider Trimarans En Route to Australia and Chile

October 11, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: windrider trimaran

No Comments

# Marples Designed 3-Meter Trimaran Gets a Junk Rig

October 13, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 3 meter trimaran, John Marples

## Comments

**Dale Hanchar**

April 22, 2019

Hi, I would love to see a wing on your boat. Please go see my design on youtube, search .. power wing sail.

**Small Tri Guy**

April 23, 2019

Thanks for posting Dale. I checked your video out at <https://youtu.be/5ck9GFx6ZPg> and it was very interesting.

# Windrider 17 Trimaran Commentary by Jim Brown and John Marples

October 17, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Jim Brown, John Marples, Seaclipper 20 trimaran, Windrider 17 trimaran

## Comments

**Kim Haubert**

June 26, 2016

I am looking for a 3 view of the WR 17. Top, front and side.

# New Seaclipper Trimarans Forum (And Building Kit Site)

October 18, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Seaclipper 20 trimaran, Seaclipper trimarans, trimaran kit

## Comments

**Danny Mydlack**

November 2, 2017

Many of these links are dead. Any update?

**Small Tri Guy**

November 2, 2017

Sadly, no updates Danny. If you do have any questions about Seaclipper though you can always contact John Marples (the designer) directly via his contact info at

<http://www.Searunner.com>



# Hartley-Boats' Lively 28 Trimaran Recently Launched

October 26, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Hartley trimaran, Lively 28 Trimaran

## Comments

**Pauls**

May 8, 2014

I think this tri has been sold now BUT I wonder if anyone heard how it eventually sailed when the compression post was fixed?

# New Uffa 10 Trimaran Design Building (Free Plans Too)

October 28, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Triciclo trimaran, Uffa 10 trimaran, www.dieci piedi.it

## Comments

### Frank

October 29, 2011

I really enjoyed the article about the Uffa 10. I just love small homemade tris anyway. But when I saw the page at <http://www.dieci piedi.it/ns/flotta/flotta2.html>, I was totally envious. I'd give my left arm to have a group of designers / builders / sailors like that to hang out with here in the US. Where are we all hiding?

### Stefano

October 29, 2011

Never was quite sure if Italians do it better, but for sure , they do it in so many different ways ;-))

### Stefano

October 29, 2011

Basically these 10 ft prototypes follow the 10 ft class rule which is very loose, but for two things: hull length 10 ft and sail area 8 square metres If I recall correctly.

They make the best of okume plywood which is found over here in sheets 10 by 5 ft, so that with one sheet you can make the full side or bottom of one little skiff without any joinery

### Small Tri Guy

October 29, 2011

I just ... ahem ... KNOW you're referring to how Italians have development some interesting trimarans Stefano. The truth is that the Europeans are waaaaaaay ahead of us North Americans when it comes to these smaller self-built multihulls. They have a lot of regatta participants at their events, whereas such gatherings along the shores of our coasts are somewhat sparsely attended. But that is what we dream about (hope?) changing thru the influence of websites such as smalltrimarans :-)

### Frank

October 30, 2011

Hey, some of my best friends are Italians! But I kinda wonder, when Italians come to the US, do they lose a bit of that characteristic flamboyant creativeness, forget how to relax, and start working too hard? Heck, I can't even get Joe to come down and visit me where the good weather and sailing is — in Florida! As for American creativity in the small-tri realm, most of that seems to be in California — or used to be. The whole east coast seems to be full of nautical Luddites who are stuck making new copies of old fashioned "traditional" monohull boats. Geez, I feel SO alone here...

### Stefano

October 30, 2011

the 10 ft tris could make a great project for kids in school age, the smaller ones even crewing in couple on these small boats otherwise intended as singles.

This would probably be a nice way of volunteering some work in schools by building twin boats and perhaps having some contests later. Building small (the kids AND the boats) tris enthusiasts in the lead mines/ luddites land would be thrilling :-)

### ian

October 31, 2011

My reaction is the same as Frank's- I'm always digging around online to find these kinds of projects and it's neat to see so many examples in one place and see a development class that encourages this kind of thing. So thanks again Joe for doings such a great job collecting these articles.

It's also nice to see the whole Uffa Fox connection being made- his designs were really at the forefront of modern high speed dinghy/skiff sailing, and way ahead of their times...and speaking of luddites, since Uffa Fox is now inspiring trimaran designers does this mean that we can now speak of a designing planing dinghy trimaran without being hit over the head with a slide rule and told that trimarans cannot plane?

Funny that with no amas mounted this boat looks pretty much like many high performance mono skiffs that use wings for crew ballasting and plane regularly...it would need more deadrise forward for my local (ocean) conditions, but on relatively flat water sit far enough aft and that won't be a problem at all and this thing should scream...it's actually sort of reminiscent of a lot of old 8-10' homebuilt power hydroplane and flatbottom plans from the 40's-60's.

It's not for nothing that Uffa Fox designed fast powerboats before coming up with his planing sailboats. With suitable planing amas a boat like this could carry a ton of sail- it would require paying attention and non-beginner skill levels to manage it, but it would likely be way less touchy than a catamaran. And like I say, the way it's set up in the pics is basically like a mono skiff with wings, so adding amas that stabilize it via dynamic lift gives you better stability without all the wetted surface and drag involved in developing that same lift via displacement amas. The other benefit is that as you add more sail power (within reason), the planing boat just goes faster rather than sinking.

So I'm waiting to see what kind of amas this one ends up with- if they are anything like the main hull and it all stays light enough, I can't see how this boat could be anything but a rocket in decent winds...hopefully more people will explore high performance planing tris that combine the speed and exhilaration of small boats like windsurfers, Moths and Musto Performance Skiffs with the safety and simplicity of a trimaran.

Watch the following video of 12 foot skiffs racing under sail at powerboat speeds and consider:

-a lot of the energy wasted in making the things bounce could be harnessed with properly positioned surfboard-like planing amas providing stability

-that lift and stability to leeward would mostly negate the need for extreme hiking and trapezes and sailing flatter would allow for more consistent sail performance

-it would also significantly decrease the number of capsizes

- due to the spider-like nature and large footprint of the tri platform you could likely get a better sail area/weight ratio \*and\* you'd have more options for using rigs that generate lift :)

<http://www.youtube.com/watch?v=RIHu0laYqiQ>

#### **Small Tri Guy**

October 31, 2011

Great small trimaran comments/ideas guys. Your contributions really take a simple, straightforward post to a whole other level.

**ian**

October 31, 2011

one other thing re: developing flotillas of this kind of boat and general interest in these kinds of dinghy style tris...

I don't know about other US states or Europe, but in CA any sail powered (or non-rowed/paddled) vessel over eight feet is required to be registered with the DMV and to display registration numbers...and the fees are pretty much the same if it's nine feet long or ninety, so you see tons of under eight foot sailboats like Sabots that benefit from beating this rule but after that there's not so much to be gained by staying under 13-14 feet or so which is still car toppable...so you don't see as many boats sized in between 8-13' here as you'd expect.

It's an asinine rule- why should ANY non-motorized boat be required to register as a motor vehicle? ...and as a country aren't we trying to promote and incentive-ize alternative/green energy use, rather than punishing it by making a small sailboat as costly to keep legal as the same sized motor driven boat? Hello?...

sadly, creating and exporting asinine rules seems to be what CA does best and it's a growing industry.

**stefano**

November 1, 2011

Asinine rules is one other thing in which Italians do pretty well, also thanks to the strong support of the EU i.e. European so called "Union", whic legislates also on bananas size and the way it has to be measured (external curb, not the internal one mind you ... )

OK, I suggest then that given the local US condntions \*4 by 8 plywood panels and obligations, you may launch here your own rule... perhaps tris under 15 ft .. and sail area.. you name it \* used sails are a bonus so choose something readily available.

We could actually launch an international rule here to be spread out in all continents.. The gauntlet is launched !

**ian**

November 1, 2011

Hi Stefano,

Here in CA our legislature was recently considering a law to mandate the use of fitted sheets in hotels, because making a bed with flat sheets is allegedly a serious workplace safety risk for hotel maids who might injure themselves tucking them in (I am not making this up).

If I know how these things work, the EU banana measurement rule is probably critical to child safety and without it our entire future is at stake...it's almost always "about the children".

Like I say, I'm not sure that all US states have a similar size limit for non-registration of sail-only vessels...just looking it up quickly I see that Florida has a far more sensible 16 foot limit, Texas is 14 foot, but then Kansas and Colorado have no such exemption at all and even the tiniest manned sailboats, rowboats and even sailboards have to be registered and numbered in those states when used on public waterways.

So I'm not going to worry to much about it from a design standpoint- I was just offering a reason for the size distribution being weighted towards under 8 foot sail trainers here in CA.

For something intended as an inexpensive and easy to build trainer/racer, ten foot/3m seems to be an obvious benchmark for the reasons of material sizes, ease of setup/use/transport and also to offer the possibility of more rig options and real performance- the realities of volume necessary to float a person in an under 8 foot vessel that has any freeboard tend to make the resulting hull shapes pretty stubby and slow, and there's also the fact that as you get smaller, things like gunwales and spars and mast steps and boards/rudders have to still stay of a certain size to function so small boats like that tend to be heavy for their size.

I've actually been thinking a LOT about this, and have been playing around with a development class rule for a small, cheap, easy to build trainer/racer based on some tortured ply methods and hull forms I've been messing around with for quite a while...here's what I have so far-

"WEDGIE" class measurement rule

This rule is intended to allow for sensible design development and performance within the class while discouraging unsafe practices and "rule beater" solutions that would tend to make all but the most expensive boats non-competitive.

maximum overall length 10 feet

maximum overall beam 10 feet

Main hull sheathing excluding transom: maximum two sheets of 4x10 plywood material

ama sheathing maximum one sheet 4x10 plywood material per ama

All hull exteriors shall be developed from plywood sheet materials; this material can be cut and reassembled using any method of construction including stitch and glue, "tortured" ply, strip/clinker/carvel planking, etc. as long as the materials involved in the exterior hull sheathing are taken from the sheet sizes/quantities specified.

all rudders and movable lateral resistance methods i.e. leeboards, centerboards, daggerboards and associated trunks must be externally mounted with no hull openings.

no lifting foils allowed

rig: united luff and foot length maximum is 24 feet with a maximum single spar length of 15 feet

\*\*\*\*\*

Some of it may sound crazy, but there's a method to my madness and you kind of have to understand the building method to see how the rule makes sense and can yield what I hope will be a pretty quick little class racer. For instance, the designs I've come up with that fit this rule have no cockpits, footwells or openings in the main hull, but use trampolines like a Hobie cat...not the easiest setup for long leisurely cruises, but that's not what this boat is about. A huge benefit is that you lose all the weight of framing a cockpit, no sheer clamps, no seats, nothing.

Same goes for the external boards and cases rule- you not only have a safer boat without centerboard and daggerboard trunks that can leak or be torn out in a hard grounding, you can save a significant amount of weight by using something like a leeboard or by attaching a board case to the crossbeams more towards the ama. And it's all far easier to build and maintain, easier to make things break away when necessary, and allows the asymmetrical nature of tris going upwind to be exploited by angling boards to weather and putting them in a better position than the main hull centerline.

The sail area rule allows for quite a bit of interpretation- using something lateen or delta shaped you can get about 72 square feet of sail area- manageable but still a lot for a ten footer...but if you went with a radically roached marconi rig with a 15' luff and 9' foot you could conceivably carry nearly 130 square feet of sail, if you dared.

I do have drawings, photos of models, and (very rough and conceptual) Carlson .hul and FreeShip .ftb files I'd be happy to pass along just to get everyone's juices flowing. There's still a lot of work to be done on my particular designs as far as actual building goes (there's quite a bit of non-traditional joinery going on that needs testing), but if anyone with some extra time and money on their hands wanted to try doing one full scale I'd be happy to work with them on it to the degree that I'm able.

I don't have anything posted online and no time to really set anything up at the moment, but perhaps Joe could help by hosting the files here in another thread if I pass them along....?

# A "Smaller Trimaran" Discussion Continued...

November 2, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: planing trimaran hull, smaller trimaran

## Comments

**ian**

November 2, 2011

Hi Frank,

I can't agree more with this-

"prospective tri pilots need to know, first and foremost, where they plan to do most of their sailing, and what they want their sailing experience to be like."

it applies to all boats really, but becomes critically important when the subject is designing a boat, and even more so when you are really trying to take any aspect of it to an extreme, whether that be flat out high speed, or ultimate comfort, or maximum safety...there are always tradeoffs and even a boat designed for very localized conditions won't be perfect in every situation.

The realities of planing under sail power present a fairly rigid set of building and operational requirements that are quite often just too detrimental to other qualities that are must-haves for a lot of people- for the most part, speed potential is the biggest advantage, but the more you optimize the boat for flat out speed and quick planing, the more you suffer in terms of seahandling and ease of operation, not to mention structural issues that arise when you push the boundaries of light weight.

But I still think there's a lot of room for better solutions than what we've seen so far... one avenue that hasn't been explored much from what I've seen is the Tanzanian "ngalawa" concept that uses very low volume ski-like amas and adjustable crossbeam connections that allow for the planing surfaces to be angled for different conditions and also flex enough to dissipate some of the inevitable pounding stresses of a flat planing surface in operation...

when I saw this-

<http://www.tzaffairs.org/wp-content/uploads/2007/06/si-haba.jpg>

my immediate thought was this-

[http://i246.photobucket.com/albums/gg100/merman\\_2008/small%20tri%20pics/opentri\\_1.jpg](http://i246.photobucket.com/albums/gg100/merman_2008/small%20tri%20pics/opentri_1.jpg)

when I see those 12' skiffs bouncing around, I wonder how being configured like this would even things out-

[http://i246.photobucket.com/albums/gg100/merman\\_2008/small%20tri%20pics/faskif\\_below.jpg](http://i246.photobucket.com/albums/gg100/merman_2008/small%20tri%20pics/faskif_below.jpg)

-one other thing with those skiffs is that the asymmetrical spinnakers they are flying are certainly generating a lot of lift, but being so far forward it just levers the bow up and screws up the hull trim...if that lift was more centered over the hull, it would effectively make the boat lighter.

My proposed rig for a small planing tri is an over the top tacking delta/crab claw hybrid that is essentially a tethered kite joined to a short stub mast with a universal-type joint; the point of the delta is held in place by a line and the sheets attach about 2/3 of the way back on the spars...this drawing shows one set up on a ten foot-ish tri for heavy weather conditions-

[http://i246.photobucket.com/albums/gg100/merman\\_2008/small%20tri%20pics/sailplan1.jpg](http://i246.photobucket.com/albums/gg100/merman_2008/small%20tri%20pics/sailplan1.jpg)

here's a not so great photo of a crude model with this type of rig installed- the point of the delta is lashed down in this photo but in real world conditions is tethered to the foredeck and everything can pivot around the spreader arm/stub mast connection...hard to describe it in operation, but a huge advantage is that as you let the boom out in heavier airs, the thrust of the air spilling off the thing is pushing the sail up like a kite-

[http://i246.photobucket.com/albums/gg100/merman\\_2008/small%20tri%20pics/tallWEDGIE\\_BW.jpg](http://i246.photobucket.com/albums/gg100/merman_2008/small%20tri%20pics/tallWEDGIE_BW.jpg)

**ian**

November 2, 2011

For anyone who was interested in the "Wedgie" class rule stuff I posted in the other thread, here's a lines plan of one variant I drew up...somewhere along the way the dimensions got inflated a bit on Freeship, so disregard the figures or adjust them mentally to fit the 10" rule-

[http://i246.photobucket.com/albums/gg100/merman\\_2008/small%20tri%20pics/flatWEDGIE\\_Linesplan.jpg](http://i246.photobucket.com/albums/gg100/merman_2008/small%20tri%20pics/flatWEDGIE_Linesplan.jpg)

here's another crude paper model based on this plan-

[http://i246.photobucket.com/albums/gg100/merman\\_2008/small%20tri%20pics/flatWDG\\_rear.jpg](http://i246.photobucket.com/albums/gg100/merman_2008/small%20tri%20pics/flatWDG_rear.jpg)

this variant uses the two allowed ply sheets to cover the main hull, one on top and one on the bottom, with the long edges oriented to make the chine connection...it's a flatter version designed to plane or at least surf easily.

the model shown in my last post is another variant with the ply sheets oriented so that the long edges make up the deck centerline and keel seams...it's the "tall" main hull version that would probably be better suited to upwind and light air conditions.

**Stefano**

November 3, 2011

Point of clarification for Ian and others:

when trying to explain why 10 ft is the development rule here in Europe (3.05 metres hull length) and by the way, also in Australia ( see 3 metre trimaran rule, which is 3.00 metre), I was pointing out that having ply sheets 5 by 10 ft, this makes it easy to build sides and bottoms of narrow hulls without joining, scarfing etc the ply sheets.

Considering that available measures in the USA are – I gather from Frank – rather 4 by 8 sheets, you can think of anything that need only one join to build a side or bottom panel, so you can come close to a hull length of close to 16 ft. This would make a more substantial boat, and in my experience, still car toppable ( especially with USA size cars) in the 200 lbs range total weight, with about 70 lbs for the main hull so to allow even one person alone to load it on top of a car (this is with some ropes and roof rack rollers).

The total sail surface could be limited to some locally available dinghy. I would set this limit for my experience to a 10 sqm sail, one or even three sails if you wish, and one spinnaker or gennaker of perhaps 10 or 12 more.

Even the 10 square metre should be more than enough to switch to planing mode in a breeze comprised between 3 and 4 Beaufort. A spinnaker would set this planing speed mode definitely at around 10 knots of true wind...

**Small Tri Guy**

November 3, 2011

Tom Raidna, from <http://www.buildboats.com> just sent me the following webpage. It contains some great photos, taken during the "Sail OK 2011" event this past summer.

There are a couple of trimarans there, including a very small one built in strip cedar. You'll find them at Jim Michalak's Boat Designs site – <http://www.jimsboats.com/>

**Small Tri Guy**

November 3, 2011

Stefano wrote to me directly with the following idea ...

Hi Joe !

As for the development class ... looks like you have the equivalent in the US – <http://www.nwmultihull.org/3meter/3mtr.htm>

You could cover this with an interview and perhaps launch a national building programme with schools involved.

The only stupid thing I see here is a minimum 380 pounds. This is silly... My boat weighs 90 kgs fully equipped and I am 73 kgs ... the boat is 4.2 metres, i.e. 50% longer than 3-meters tris.

All up weight would be 163 kgs which is 355, for a much larger boat ... 380 makes no sense but there could be local derogations to the rule.

And here is the Aussie 3 metre trimaran – <http://www.teamscarab.com.au/Aussie%203%20m/design.html>

Also, this discussion has been going on – <http://www.boatdesign.net/forums/multihulls/international-3-meter-19222.html>

I would probably set the rule at 12 or 14 ft, crew of one or 2, and other box rules but not the damn weight and the sitting int the boat for safety and people being handicapped by weight and other issues.

I definitely care that these people have an option to sail, but others have to have a chance to sit where in the world they prefer, move around, and trim the boat and steer at their will.

ciao, Stefano

**ian**

November 3, 2011

Hi Stefano,

4x8 is indeed a standard size for most building related sheet goods in the US, but larger sizes are available; 4x10 sheets are pretty easy to order for most quality plywood, it's just not a stocked item at most home improvement stores (where all the great yacht builders go).

My decision to use the ten foot size still allows for hull sheathing to be scarf-less, which I think is a big advantage for non-boatbuilders who might attempt a project like this, and cuts down greatly on waste, workspace and tool requirements and associated costs.

I also consciously chose this size boat for the fact that it's a more reasonable size for a first timer sailor or kid...even a ten foot tri is a lot of boat with the increased width over a similar length mono, and the quick acceleration of tris adds another element that might make something even 14' long just a bit much for an inexperienced junior sailor.

My personal goal with these ideas is to establish designs that are something of a trimaran analog of the Sabot or Optimist prams...easy and cheap to knock together and get on the water and suitable for turning your ten year old loose in.

I have looked at the US three meter class rules and had the same reaction you did to the weight and cockpit/operational requirements...they simply don't work for the type of sailing I want to do now, and for the type of sailing I remember doing as a kid learning how to sail in Sabots, when comfort was the last thing from my mind and capsizing was something you did for fun :)

The whole trim/ballast thing is another area that seems to have been overlooked in most discussions of planing tris- one aspect of the high speed planing mono skiffs that is a constant is sailing the things as flat as possible using hiking straps, wings and/or trapezes for leverage. In the typical sit-to-steer tri setup, you are stuck with using the ama for righting moment and have to accept that added drag/wetted surface, along with the weight required to have a structure substantial enough to carry the associated loads at all times.

I personally think it's short sighted to accept as a given the notion that a small tri \*must\* be configured to have the leeward ama in displacement mode or even in contact with the water at all times...like I said before, if you look at the Uffa 10 with no amas mounted it looks like a typical mono skiff with wings, so why can't a small tri be sailed like one, using the windward wing area for leverage via live ballast and the leeward ama staying mostly free of the water but still there to add more righting moment and planing surface when needed?

In other words, rather than the typical tri that is sailed like an atlantic proa with the smaller ama to leeward and providing righting moment, it becomes more like the traditional south pacific proa that is like a monohull with a windward wing/ama used to stabilize it.

This is where I have to respectfully differ with Frank's statement that "Tris are not at all like monohulls"...in the case of a small dinghy type vessel, the biggest traditional differences- lack of static ballast and a fixed keel on the main hull- simply aren't there.

So then you are left with the wing structure and amas- a wing structure is old hat on mono skiffs so that's no difference, and if you sail a suitably configured tri flat enough via live ballast, the leeward ama becomes immaterial for a large part of the time.

Frank is absolutely correct on his other points about seahandling, noise, pounding, wet ride, light air performance etc. but other than seahandling, when I sail fast just for the joy and thrill of sailing fast, I really don't care much about that other stuff...

and a lot of the seahandling stuff related to planing amas that Frank mentioned I believe can be alleviated when you don't rely on the leeward ama for flotation when at speed...specifically the negative wave interaction, tendency to hobbyhorse or catch the ama bow and pitchpole can be reduced by using shorter amas with low displacement in the ends and moving them aft.

So with all due respect to Frank and the people who developed the US 3m rule and all the others who favor the sit-in concept...more power to them and I \*really\* dig your boats, but I already have a very nice Eames lounge chair knockoff...I want to do THIS, just minus the dangerous trapeze and the trim instability at speed and the static instability and the barely manageable rig and the inevitable crash-

[http://www.youtube.com/watch?v=-04W5\\_RulFo](http://www.youtube.com/watch?v=-04W5_RulFo)

**ian**

November 3, 2011

For what it's worth, here's the lines plan of the ama shape I used on the "wedgie" class boats, that employs some of the concepts discussed in the last post...

it is developed from a single sheet of 4x8 material, tortured and partially folded into shape...the aka receivers are simple tubes that the sheet ends fold over and are clamped/glued or otherwise fastened to. I've yet to do one full scale, but I've done countless models in all kinds of materials from paper to styrene to foam and it is simplicity itself- two identical but mirrored convex curves on the long sides of the sheet form the bottom rocker, two perforated and folded/glass taped curved lines form the chines...stitch the bottom, fit the aka receiver tubes, glass it up and you're done.

The shape is essentially that of a surfboard, just puffed up for increased volume...anyone familiar with old surfboards will no doubt recognize the various waterlines as being very reminiscent of standard longboard templates, and you also need to consider that these are static waterlines- with a slightly stern down trim like you would sail a small skiff at speed, these lines morph to something more like flat -sterned deep-V power skiff and the lifting area moves way aft where you need it.

Like a surfboard, it's a planing semi-submersible wave piercing design, just with the knife edge bow oriented 90° from where we've been conditioned to expect it on a performance tri ama...when properly trimmed this surfboard-like shape can be buried pretty deep going forwards and still not trip and pitchpole ( what surfers refer to as "pearl diving" or "pearling"), and the crowned deck, flat bottom and narrower bow make it naturally prone to want to correct upwards and forwards when the form is sunk and the buoyant part kicks in.

[http://s246.photobucket.com/albums/gg100/merman\\_2008/small%20tri%20pics/?action=view&current=wedgema1\\_Linesplan.jpg](http://s246.photobucket.com/albums/gg100/merman_2008/small%20tri%20pics/?action=view&current=wedgema1_Linesplan.jpg)

**Daniel Szturc**

September 28, 2021

Nice

# Trimaran Building Project by the Owner of VisionSails

November 3, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: new trimaran design, small trimaran design, Vision Sails, visionsails.com

## Comments

**Danilo Veleirok**

November 4, 2011

Where will you sail to nearby Louisville?

**Brian Sims**

November 6, 2011

Hello Danilo,

Locally we sail on the Ohio River...but there is also several nice large lakes within a 2-3 hours from here which make great weekend trips! That is really what I am designing the boat for...

Brian



# Drifter 17 Trimaran Building Plans Now Available (in PDF)

November 7, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: drifter 17 trimaran, Mark Gumprecht

## Comments

**Tom Raidna**

November 7, 2011

For those interested in this design, Mark's building log for Drifter 17 can be see at : <http://www.buildboats.com/bbdrifter17.html>

Tons of pictures and commentary from Mark.

**rodrigo**

May 8, 2012

oi, trimaram I am loving it, as I make to be able to have one copies of the plans! , living creature in brazil and for would be excellent here it is a wonder

**Richard**

November 1, 2021

Are Drifter 17 plans available for purchase ?

**Small Tri Guy**

November 1, 2021

It doesn't look like Mark's site has been updated for awhile. Nor do plans for the 17-footer appear to be available for sale on the Duckworks site ... although the Drifter 16 plans are available for free download right now: <https://duckworks.com/drifter-16-plans/>

**Richard Fraser**

November 2, 2021

Drifter 17 plans in PDF format are available according to what I read. I would like to purchase a set.

**Small Tri Guy**

November 2, 2021

Richard,

Where are you seeing the Drifter 17 plans for sale? What website is selling them?

If there currently is no website selling them then perhaps you might try emailing Mark (the designer) at the following email address: mwgumprecht AT comcast DOT net

The email above is his old address but perhaps it still works. I haven't heard from him in a long time.

**Richard Fraser**

November 2, 2021

Small Tri Guy,

His old address still does not work. The Drifter is supposed to be available in PDF format.

**Rusin Van Dyke**

October 14, 2022

I am the current owner of Gypsy Wind. I have copies of the plans. They are very basic. There are several videos of the boat on my YouTube site, starting here - <https://www.youtube.com/watch?v=ZgLdHjNcljU&t=238s>

Check and read all comments with the videos before asking questions. I don't do this for a living so may not answer questions.

# New Seaclipper 16 Trimaran Flying on the Water

November 11, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: John Marples, Marples Seaclipper, Seaclipper 16 trimaran

## Comments

### Brian Sims

November 11, 2011

AWESOME!!! So inspiring....:)

### Small Tri Guy

November 11, 2011

Hi Brian,

Yeah, the Seaclipper 16 trimaran is similar in shape to the 22-foot trimaran you're building, which we can see at <http://smalltrimarans.com/blog/?p=6993>

### Larry S

November 11, 2011

Very notable attention to detail and craftsmanship.

### Frank

November 11, 2011

Excellent workmanship and great video, guys. (A bit more panning around would have been appreciated. Maybe next time? :) Any idea how fast you were going? Also, how much sail are you running, where did that great looking rig come from — and where can I get one like it?

Keep on flyin' – Frank

### Bob Trygg

November 14, 2011

Frank:

To answer your questions-

During this video we recorded the speed of 13.9 mph as shown on GPS.

The sail area is approx. 130 sq. ft.

The rig is a standard Hobie 14 that was purchased used on Craig's List. The sails are kits from Sailrite (Hobie 14) that we sewed ourself.

Yes we could have done better on the video but we were quite busy shaking the boat down. Maybe next time, yes.

Bob Trygg

### Wade Tarzia

November 16, 2011

I love those elegant akas (cross-beams). So many small tris, especially the home-built ones, have such ugly beams. Seeings as they make a huge aesthetic (besides structural) effect on the boat, paying some attention to them is a nice idea.

### David Dodsworth

October 30, 2013

Are the akas dimensional lumber or composite material? Whatever, they are gorgeous.

Tell me about the aka hinges. I have zero experience with metal fabrication.

### Small Tri Guy

October 30, 2013

Hi David,

The akas (crossbeams) were built with 4 pieces of 1X4 lumber (glued together with epoxy resin). The folding hinges would need to be fabricated by a welder if you don't possess that skill. They are relatively simple and straightforward in design though. It shouldn't cost more than \$200-300 to get a good welder to make these hinges. Many guys do that kind of thing to make money on the side (I've got a neighbor friend who does this sort of thing all the time).

### Tarquin

July 2, 2014

Hi! Nice work; it's certainly inspired me :) Just a few questions would help me out a great deal. Is the splash-over through the trampoline why they aren't recommended, or is that a structural thing? How does it handle beaching? Will a couple of waves throw it around? I'm on the great barrier reef and while we don't get surf, 2-3m swell is not unheard off. How does she handle on different tacks across large waves? There are a couple of lakes nearby, but I generally drop my 6m Windrush Cat off the beach and envisage doing the same with this. Would be great to see some more videos, especially at speed! Cheers!

# Cross 18 Trimaran Still a Beauty

November 18, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Cross 18 trimaran

## Comments

**Mona Michaels**

March 24, 2015

Trying to get a price to sell what I think is a 1989 CROSS 18 ft. TRIMARAN.

I have the plans and the trimaran has been under cover for years and not used.

Need to sell it but husband, who passed away, did not tell me what it cost.

Contact me at monamichaels AT att.net

**William Brown**

May 10, 2015

Where are you located?

**Gregory Potter**

September 14, 2018

I would love a small Trimaran with a lot of work completed, but would need to know where you are located.

**Martin**

November 4, 2020

I would like to make a trimaran,

Something like weta but from wood. Is there anyone that has built something similar?

**Small Tri Guy**

November 4, 2020

Sure Martin. For example, check out Richard Wood's designs (and you may want to particularly look at the Strike 15 model) -

<http://www.sailingcatamarans.com/index.php/designs-2/27-trimarans-under-25>

# More Photos of the Uffa 10 Trimaran Under Construction

November 23, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Uffa 10 trimaran

## Comments

### **Small Tri Guy**

November 26, 2011

Ian M. recently shared the following info with me (great website) ...

"I thought you might be interested in these guys – <http://repurposedmaterialsinc.com/>

They deal in salvage and scrap materials from all kinds of industries with the intention of getting them re-used and re-purposed where applicable, with minimal re-manufacturing involved, and are particularly interested in seeking out people with specific needs and applications. This seems right in line with the whole cheap DIY small tri movement. Perhaps, with enough interest shown,

we could get them looking for stuff like aluminum tubing for vakas and spars (maybe some nice curved stuff at pennies on the dollar),

stuff suitable for cheap sail material, flotation, sheet goods ... the billboard vinyls seem perfectly suited to things like trampolines and possibly even in skin-on-frame construction."

# Largest Trailerable Tri-Hulled Craft Ever? (maybe, but it's not really a trimaran ... is it? ... )

November 25, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Jan Gougeon multihull STRINGS, Meade Gougeon audio interview

## Comments

**Tom Raidna**

November 29, 2011

Hmmm, so what is the operational definition of a Trimaran? sorry occupational hazard. Seems to me if the center unit doesn't touch the water then it's a catamaran with a hull shaped cabin. None the less very cool.

# Multihull Audio Interview (Excerpt) Featuring Jim Brown Interviewing Meade Gougeon

November 25, 2011

Categories: Small Tri Info - All, Small Trimaran Audios

Tags: Meade Gougeon multihull audio interview

No Comments

# Randy Smyth Discusses the SIZZOR Trimaran

December 2, 2011

Categories: Small Tri Info - All, Small Trimaran Audios

Tags: randy smyth, randy smyth interview, scissor trimaran

No Comments

# Innovative Expandacraft Turns Small Boats Into Trimarans (and More)

December 9, 2011

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: expandacraft

## Comments

**Brian Rogers**

August 8, 2013

Hi there

Enquiring whether you're interested in an agent for Expandacraft in New Zealand.

We are multihull sailors, kayakers and business owners in Tauranga, NZ.

That includes publishing magazines and newspapers, and the region's leading boating mag, Waterline.

We've been building prototypes of cat kayaks for years and were delighted to see someone has finally developed the perfect solution, demountable too!

We'd be keen to talk about the prospects of being a NZ agent, I'm sure our promotional power would be useful, coupled with our obsession with cats and kayaks.

Looking forward to hearing from you. regards. Brian & Claire Rogers.

Sun Media Ltd.

[brian@thesun.co.nz](mailto:brian@thesun.co.nz)

0064 7 5780030

**Wesley**

January 9, 2014

Hi there,

Sorry it took so long to get back with you. Yes, I have been looking to get into the market in NZ and AU. Contact me soon and lets get things going. [jwesleystevenson AT gmail DOT com](mailto:jwesleystevenson@gmail.com)

Regards,

Wesley Stevenson

813-810-2554

**JohnMartin**

October 28, 2021

Wesley

Can i safely remove middle toon on my 21 for easier lurching and loading



# Malibu Outrigger & Triad Trimaran: A Comparison (Audio Interview)

December 16, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: Malibu Outrigger, Piver Nugget, Triad trimaran

## Comments

**Robert Terry**

December 28, 2013

Joe, sounds like you need to follow up with Mike regarding some more of the pictures he has! He mentioned more than one model that he has "a lot" of pictures of. It would be good to hear more head to head comparison of the many legacy multihull designs he built and sailed, and which if any would be worth building today amidst the newer designs. I had not been too attuned to trimarans but your book and posts are changing that. I am intrigued by the Triad and wonder how it stacks up against more current designs...

**Small Tri Guy**

December 28, 2013

Hi Robert. He does have some more pics ... but I don't know if they're easily obtainable (meaning "tucked away" somewhere dusty).

**Robert Terry**

December 30, 2013

Let's scan 'em and add them to your website! Much of the history of these designs will be lost otherwise. Despite its description as a very fast tri, very little info is available on the Triad trimaran.

**Small Tri Guy**

December 30, 2013

I agree.

# Nicky Cruz Explorer Trimaran Build Progressing in Germany

December 29, 2011

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Delaveau Multihull Designs, Nicky Cruz trimaran

No Comments

# Discover 20 Trimaran Being Built in the Philippines

January 6, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chis White multihull, Discovery 20 trimaran

## Comments

**Doug Schuch**

January 7, 2012

Hey, Thanks for the post on my trimaran project here in the Philippines! The forum at Pinoyboats.com is a truly amazing source of boating information. The Philippines is a maritime nation if there ever was one (second largest archipelago in the world) but it is difficult to be a local boater unless willing to build yourself due to the very high import duties. For self-builders, however, there are some distinct advantages: local marine plywood is very affordable, and locally produced epoxy is of very good quality and much cheaper than the known brands from the US. Labor is also very low compared to the West, allowing someone like me to hire help. The difficulty is accessing rigging supplies, including masts, which led to this excellent discussion on plywood wing masts:

<http://www.pinoyboats.org/forum/viewtopic.php?t=2132&postdays=0&postorder=asc&start=0>

This is actually another thread on another 20-foot trimaran, this one designed by a Pinoy engineer who is building it. Inside the thread, about page 3, you will find the discussion on wing mast construction, with excellent contributions by Mike Waters, designer of the W-17 and W-22.

I am finishing up construction on my Discovery 20 and will begin work on the wing mast as well as fairing and painting the hulls while waiting for my rigging to arrive by sea transport in late Feb. or early March. Of course, pictures will continue to be posted. There is very little info on this design on the internet, and the plans do not explain the building process in any detail, so I wanted to document my build to help others who choose this design, or go with something similar.

I plan on using synthetic rigging, mostly from Colligo Marine: great guys who can help you figure out what you need to loose the wire on your boat!

I am close to finishing up an order for Hyde Sails, who have an operation here in the Philippines. They have also been helpful in figuring out how best to update the sail plan.

My little bay here in Negros, Philippines is turning into a miniature trimaran center, with my project, a 52 foot aluminum performance tri being refitted by an Aussie who has bought property on the bay, plus a German who lives in the area has brought a 28-foot Corsair over from Vietnam. Races coming soon, no doubt!

Keep the apparent wind up!

Doug

**Anthony Basso**

January 23, 2012

I own the actual Discovery 20 pictured in the great book "Small Trimarans".

I live in the San Francisco area (in California U.S.A.) If any one needs measurements off of my boat or has any questions about the Discovery 20, then they are free to contact me.

-Tony Basso

# Using TRIAK Trimarans for a Sea of Cortez Expedition

January 11, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Triak kayak, Triak trimaran

No Comments

# New Rig Modification on a DIY Trimaran

January 13, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: diy trimaran, diy-tris.com

## Comments

**Tom Sorensen**

January 13, 2012

Frank,

You are my new hero. I absolutely love it. I've been playing with my little 10' searunner tri, and build a junk sail for shorter spars and ease of reefing and furling from the cockpit, but that rig absolutely rocks. beautiful ama folding system as well.

Tom

**Peter Bogacz**

January 13, 2012

Frank,

Love the new rigging. I am always impressed with your ability to bring your ideas to use so quickly. I cannot wait to get the chance to see your trimaran up close.

Peter

**Frank**

January 14, 2012

Thanks for your kind words, Tom. I plan to have more videos soon showing in detail how both the E-Z-Up mast & sail rig and the folding akas work. I just need to get my videographer (wife Laura) to come to the beach one of these days...

Frank

**Gary Dierking**

January 14, 2012

That's the slickest folding system I've seen, along with a very easy to raise rig. The rig looks very Balinese and looks right with a double outrigger. Should be just the thing for the Everglades Challenge if it reefs easily.

**Don Pierce**

January 14, 2012

Frank, as I was watching the video I was thinking how the rig looked just like the jukung I used to sail when I lived in Bali. Then I saw Gary thought so as well. Very nice folding aka system. I am keen to see more video.

**Frank**

January 14, 2012

Hey Peter – Thanks for the comments. I saw in Dave's newsletter that you did something interesting with an outrigger canoe concept (and a Hobie sail?). When do I get to see it up close? Let's get together and compare notes – Frank

**Frank**

January 14, 2012

Hi Gary – I have read your book three times. It's the best one of the 30+ small boatbuilding I've bought in the past 3 years. Thanks for all your inspiration. I am a huge fan of the Balinese jukung (and Austronesian small sailing craft in general), and hope to build something like that one day. Meanwhile I plan to continue refining these "Western" modifications on my little boats, and maybe even actually get up the nerve to do the EC one of these years — or at least the first leg :)

Cheers – Frank

**Frank**

January 14, 2012

I'll definitely be adding to my video library now that my wonderful wife, Laura, got me a nifty new GoPro Hero2 for Christmas. Lots of technical details and different angles I would like folks to be able to see if they wish. Now I just have to get Laura out there with the camera and me and the boats...

– Frank

**Dan**

January 14, 2012

Frank,

I love your passion for the small tris! It has my keen to get going with a smaller solo boat incorporating some of your excellent ideas. Your new rig reminds me a bit of Gary's stub mast rig and the Ulua rig with a bow mount. Clever stuff.

Dan

**Frank**

January 17, 2012

I seriously considered as an alternative mast/sail raising solution the stub mast idea, per Dierking and the much earlier Malibu outrigger canoes. It is a simple and effective way to go, and I will probably try it at some point. I believe it could be done while sitting in the cockpit.

– Frank

**John Farrell**

January 19, 2012

\*riffin neat.great idea's and application. Looking fwd to further info/pics.

**David Kagan**

January 20, 2012

Frank:

Your pivoting system is great. Is cleating the lines for the two front beams enough to keep the rear beams in place or do you have lines of those, too? It's consistently interesting to learn about your designs and their evolutions.

**Frank**

January 20, 2012

Coming very soon to my web site, 150 or so new pix. I'll let Joe know when it's done.

Cheers – Frank

**Frank**

January 21, 2012

Great question, David. Cleating the lines to just the front akas has proven quite sufficient for keeping the amas open, even in heavy weather. The rear akas are attached to the front akas via the ama, so where one goes, the other goes :)

Cheers – Frank

**Stefano**

January 21, 2012

Hi Frank..

You've really done it this time !! I'm very impressed by both systems. While the ama swinging thing leaves me a tad suspicious about the strength of it ( one hole in the aka, and a tendency inherent to fold back in front seas, I would add some kind of stopper beyond the pull out line)

The mast and raising system is just gorgeous. I would like if you could expand more on materials ( fiberglass poles form windsurf masts? ) sail cut and reefing system. This looks gorgeous for kayak-tri sailing. I'd love to see also how it performs down wind.

Great job, keep up the good work ...Stefano

**Stefano**

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Great job, keep up the good work ...Stefano

**Frank**

January 21, 2012

Well, the new site pages are (finally) up! More than 100 new photos and many new pages, including lots of shots of the "test-bed" boat where virtually everything about it is experimental — the hull, the folding aka/ama system, the E-Z-Up mast and even the homemade sail. Only the amazingly functional "patio chair" seat has proven its value enough to be recycled from an earlier boat :)

Stop by and say hi! – Frank

**Frank**

January 21, 2012

Hi Stefano – Thanks for your positive words. I had the boat out at a local meetup in high winds today, and pushed it as hard as I could. When the ama submerged, I had to back off the mainsheet. But everything held together perfectly.

It is all quite strong, I assure you. I have NO desire to end up stranded in the middle of the bay! The ama/aka has no tendency to close under any load I can put on it.

Today's sailing was a solid test of that. The ama was submerged at double-digit speeds several times, but no problems. For details on the sail rig, please visit my website and click on "What's New For 2012!"

Take care – Frank

**mel**

August 25, 2012

frank-great boat. do you have plans available ? would love to build one.

Mel

**Frank**

August 27, 2012

Hi Mel – Sorry, no plans available yet, I'm still working on getting the hull shape just right. Maybe I'm too much of a perfectionst, but I really want anyone who builds from my plans to be 100% delighted.

I'll let Joe know whenever I'm able to offer some plans.

Take care – Frank

# Audio: An Introduction to Multihull Conversations with Jim Brown

January 20, 2012

Categories: Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: multihull conversations with jim brown

## Comments

**Wade Tarzia**

January 23, 2012

Having had a chance at a pre-listen, I can vouch for the interest in these things from a small-outrigger guy (me). I will probably never own anything over 24 feet and 600 pounds, but the history and theory that emerges from these conversations were good fun.



# Quick Look at the Arrowhead Trimaran

February 2, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: arrowhead trimaran

## Comments

**Susan Taber Richards**

March 23, 2012

I was googling "Arrowhead Trimaran" and came across this article. My father was Robert Taber, who designed and built the Arrowhead Trimaran, and I can attest to the fact that it was a very fast boat!

We have one of the trimarans down at my father's property in Warren, RI (he died in 2008). I was wondering if there is still any interest anywhere in this boat?

Regards,

Susan T. Richards

**Fred Goldfarb**

July 14, 2012

Hi Susan,

I was interested in that old boat but the owner seems to have no interest in either using it nor ridding himself of it. It's in need of more than a major cleaning, though from what I saw the hulls are probably still sound. Can't speak for the hinges or any other parts of it however. Having owned two tri's before, your fathers' design would make a fine daysailor/overnighter, and one a dog (like mine) could walk about relatively safely too. You can message me through my facebook page if you'd like, and when I reply I'll forward my usual email address.

Thanks. -Sail on!

Fred

**Ray**

August 20, 2012

I would love to buy it!!

**Scott**

February 4, 2013

Susan:

I just saw one on Craigslist and will be getting it soon, it will be a project but having a trimaran has been a dream for many years and I just love restoring old projects.

Thanks

Scott

# Microship Trimaran Being Made Available for a Vancouver Island Adventure

February 9, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Microship trimaran

No Comments

# The New Adventure Trimaran Named Osprey

February 16, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

## Comments

**Erik**

August 30, 2014

How to get in contact with the designers/ builders of the Osprey trimaran?

I would like to build one!

Erik

# Small Trimaran with Folding Hulls Sailing in Italy

February 23, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: folding hulls, folding trimaran, small trimaran

## Comments

### Stefano

February 24, 2012

Hi to all.. this is still the breed of the 10 ft development class in Italy, not only trimarans..

If I recall correctly this one is demountable, not foldabl, and it has been superseded by a third version: fast tri... but then the plans may not be available as these are.

One of the main concerns here is light weight. So I'm sure the akas can be built with mre ease and simpler structures, perhaps also sturdier. This class has stiff wind limitations when competing.

### Tom the rower

February 25, 2012

I think the crossbeams seem strong yet flexible. I really like the design.

### ian

March 2, 2012

Hi Stefano-

If I'm not mistaken, in this instance I think the "folding" part refers to the collapsible amas that can "fold" flat when demounted from the akas and disassembled, like the old "Porta-Bote" dinghys-

<http://www.porta-bote.com/index.php>

Otherwise there's no folding crossbeam mechanism like on bigger trailerable tris, which makes sense on such a tiny boat trying to stay light.

The various tab-and-slot connections here all look very elegant- it's Italian after all- and they really use the sheet material to good advantage and eliminate the need for a lot of heavy hardware.

The akas in the bottom photo appear to be just the frame of what is shown in the model...just adding a thin plywood sheathing or even a covering of stretched and epoxied fiberglass or kevlar cloth could either stiffen and strengthen the existing structure significantly without a lot of weight gain, or could be used with even lighter framing to keep the same overall strength and flex at the same or possibly less weight.

Even a trampoline made of a low stretch fabric and attached properly could help keep the akas square to each other while still allowing for some flex and could keep the boat dryer as well if it was a tight weave or rubberized.

# Acquiring an Ocqueteau Speed 770 Trimaran Named GONZO

March 2, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Ocqueteau Speed 770 Trimaran

## Comments

**stef dupon**

March 9, 2012

Hi Frank,  
net je interessante zeilverhalen gelezen ! Momenteel wonen Karine en ik (stef) (belgische nat,) in een klein dorp in het noorden van Mozambique aan de prachtige indische oceaan en zijn momenteel op zoek naar een kleine rappe betaalbare daytrimaran.  
Is de Gonzo te koop en nog herstelbaar ? Of ken je iemand die een Qcqueteau te koop heeft ?

grts

stef

[belmozmar@gmail.com](mailto:belmozmar@gmail.com)

**James Leone**

April 19, 2012

Hi Frank,  
I own and sail a Speed 770. I enjoy sailing here in Ireland and have sailed all South East quarter between Malahide (Dublin) and New Ross Wexford. I intend to make some modifications to make long range cruising more comfortable. I have idea to mount some 'pods' on the trampoline areas. Any thoughts or suggestions please?

Thanks and kind regards

James Leone

Ireland

**Steve Hanson**

June 24, 2012

First to Frank (and my daughter speaks French but unfortunately I don't). Thanks for the kind words. I've had a lot of fun restoring my Speed 770. I've learned more than I intended on epoxy paints and fiberglass. Just finished another winter of fixing everything I missed (or broke) last year. I'll post some more video this summer. Last year I sailed on Lake Huron in Michigan. This year I'll be operating out of a marina on Lake St. Clair (a smaller lake between Lake Huron and Lake Erie. Many adventures to follow.

For James, is your idea for "pods" to provide some better shelter from spray? Or are you looking for more storage? The low freeboard on this boat does make it wet. I've been considering a lightweight decking (fiberglass with either a foam or cedar core) on top of the aluminum cross tubes to give a bit more freeboard and to prevent drag when waves slap up and hit the tramps. I'm not sure if this is practical and I'm concerned about weight (I've already added a few hundred pounds for galley, electrical and other cruising amenities. I'll let you. if I try building something.

**agur**

December 25, 2013

Hi!

I have been more than a year keeping eye on Speed 770 ads and trying to find any information about that particular boat, which is rather scarce (think I have gone through every page related to Speed 770 you can find in google :)

Anyways, what interests me most is the cabin - can anyone describe his/her firsthand experience with comfort and ergonomics of Speed 770 living compartment. Is it truly spartan as it looks from the pictures or is there a bit of comfort relating a several days long passage?

What is exactly the cabin height, ist 1,6 m as I found out in some web page?

**Steve Hanson**

December 26, 2013

Agur,

The cabin in production models is very spartan. A bunk on each side forward and a small nav station aft on the port side. There's enough room to sit on a manufacturer provided seat in the center hull but no standing room.

That said, I've made modifications to my boat that make it into a reasonable cruiser. It's best with solo sailing but doable with two. And I did a three day race with three adults onboard (but that's really two much weight for reasonable performance. I have a lot of fun with overnights and anchoring out. I've added a porta potty, alcohol stove, 5 gallon water system, and a twelve volt battery for lights/fans (charge it up in port and it lasts a few days.)

Send me an email and I'll dig up some pictures. Usna79 AT aol.com

**agur**

December 30, 2013

Thanks Steve for your reply.

I tried to send you additional questions at your e-mail mentioned above, but had no success :( ... they came back with failure notice, maybe your inbox is full or my emails went to spam folder.

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

But I do appreciate pics and any detailed information about speed 770, though...

**Steve Hanson**

July 28, 2020

Ok, seven years later and I'm now living in the Chesapeake in southeastern Virginia. Osprey sat on her trailer for a few years as we transitioned our lives from Michigan. I just got her in the water and am ready to start cruising again. Drop me a line if you're in the area (usna79 AT aol.com – same Steve mentioned above).

# VK Homemade Sail for a Small Trimaran

March 9, 2012

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: diy sail, homemade sail, make sail, small trimaran sail

No Comments

# Unique Trailerable Trimaran with Foils

March 15, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: hydrofoil trimaran, trimaran

No Comments



# More Strike 18 Trimaran Sailing Videos

March 15, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Richard Woods, Strike 18 trimaran

No Comments

# Audio: Jim Brown Talks About the Seaclipper 20 Trimaran

March 24, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown multihull, John Marples, Seaclipper 20 trimaran

## Comments

**Wade Tarzia**

March 30, 2012

The adventurous Berque brothers from France sailed a ca. 20 foot tacking single-outrigger across the Atlantic (one of their several boats named Micromegas), and they used wide, flat, thin planks for the crossbeams. These crossbeams flexed a \*lot\* — some of us were worried for them! — but they came through safely. I wonder if they noticed an improvement in steadier sail aerodynamics and hull motion from these motion-absorbing beams, similar to that mentioned in this interesting SeaClipper 20 observation?

**ian**

March 31, 2012

I'm curious to know what species and grade of wood was used for the crossbeam parts themselves...material selection is pretty important in a spar or beam subjected to repeated flexing of this type.

One thing I can relate to anyone considering a flexible wooden beam or other structural member is that while plywood and laminated beams are great for a lot of things, they can be problematic when flexed over and over this way and when they fail it is often catastrophically with little possibility of repair. They can certainly be engineered to work, but achieving that not be as easy as it might seem intuitively, at least not while maintaining the lighter weight benefits. If you do go that route, routine inspection and maintenance are critical to avoid nasty surprises at the worst possible moments.

I'm actually a bit surprised that Jim is surprised by the effect on boat motion...the literature I've read on the origins of multihull design contains numerous references and examples of Polynesians lashing their craft together not just for want of modern materials and fasteners, but also because the built in flex in this method helped dissipate stress loads and made for a safer and steadier ride...

same with the crab claw and similar rigs that don't rigidly fix the sails leading edge in relation to the hull(s) the way modern fore and aft rigs do; those sails don't generate the sharp peaks in stress loads when the hull moves sharply in a seaway, in turns, etc. because that leveraged energy simply moves the sail around a bit and it dissipates as spilled air that is generally coming off the bottom edge of the sail and not trying to flip the boat to leeward like modern rigs do in a gust.

Anyway, another example of a non-polynesian design that deliberately introduces flex into the crossbeams via a lashed connection is the Tanzanian ngalawa-

<http://www.tzaffairs.org/wp-content/uploads/2007/06/si-haba.jpg>

-aside from the crudity of it and the swing axis and the relative part dimensions, it's actually pretty darn close to the Seaclipper 20's setup as far as the pivoting element... although from my understanding of it they use this primarily for shock absorption and to adjust the roll angle on the ski-like ama boards or switch them out completely for various weather/sea conditions, and not as a space saving or ease of handling thing.

Seems like a modern version of that crossbeam could be made that could do all of that, and it also seems that if the hinge didn't have to stay absolutely rigid the way so many modern tri folding mechanisms do to function as designed, but instead was allowed to flex as a matter of course, you could use far simpler, lighter and less costly parts AND have the ride and stress reduction benefits as well.

**ian**

March 31, 2012

Here's what the Jim Brown of the 19th century had to say on the subject of crossbeam rigidity and stress loads in multihulls-

"...So then, there are two important principles of speed which constantly work against each other. If we increase the power to get more speed we must increase the stability of the hull correspondingly. An increased hull has more resistance, both from sectional area and surface friction. So what we would gain one way we needs must lose in the other.

Well, a boat must have width, and the wider she is, generally speaking, the more stable she will be. But a wide boat cannot have great speed, apply what power you will to her, so the next thing that is to be done is to decrease the sectional area and in a measure retain stability; the boat would have power to lift at a distance each side of the keel, where it would do great work. I kept on following this principle, getting the keel higher and higher, until by and by the keel came out of the water, when, lo and behold! there was the double boat!

Nothing else to be done but take a saw and split her in two, spread it apart a little way, and cover all with a deck, and there you are! That was the rough road which I traveled, and having arrived thus far I abandoned my ill-shaped hulls, and in their place substituted two long, narrow, very light boats and connected them at the bow, stern and middle. The boats (hulls) must be far enough apart, so that the water which they displace in moving will not crowd against them on the inside. To hold them apart at such a distance rigidly would be difficult, and not only difficult but useless; indeed, just exactly the thing which should not be done. So the fore tie beam and the after tie beam must be connected to the hulls by universal joints, and the main beam in the centre must be joined to the hulls in such a manner as to give them freedom in a slight lateral motion, for it will be seen that if the bow of one boat pitches she must pitch in a circle round a centre, and in doing that the two hulls are drawn bodily together, slightly, to be sure, but enough to pull them to pieces if provision is not made for it. ..."

(Source: Herreshoff, Nathanael Greene. "The Amaryllis. How the Yachting Wonder of 1876 Was Conceived and Built." New York Herald, April 16, 1877, p. 5.)

**Maren**

2/15/23, 7:38 PM

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October 20, 2012

Ian,

They used douglas fir for the crossbeams.

# Seaclipper 20 Trimaran Launch in Florida Keys (Video)

April 2, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown, Seaclipper 20 trimaran, John Marples

No Comments

## 3 Small Trimarans Built by WaterTribe Guys

April 7, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Everglades Challenge, Mosquito trimaran, Triplaner trimaran, XRT trimaran canoe

### Comments

**john farrell**

April 7, 2012

This was through <http://www.bandbyachtdesigns.com/> you can get more inf there, they had some teething troubles, but overcame them an had a fuitful trip.

John Farrell

**eric17**

April 7, 2012

Building of the boats started on August 19 – <http://sailnaway.blogspot.fr/2011/08/trimaran.html> or [https://picasaweb.google.com/alanosaurus/Tri\\_build\\_8\\_11](https://picasaweb.google.com/alanosaurus/Tri_build_8_11) and newer parts of <https://picasaweb.google.com/alanosaurus>

I really would like to know how Paul (aka SOS) does the calculations for tortured plywood !!!

Cheers

Eric

**Wade Tarzia**

April 10, 2012

Alan Stewart (SOS, his dad is Paul) and his mother Dawn (SandyBottom) completed the 1200 mile Ultimate Florida Challenge (the Everglades Challenge was just the first stage), surely a good day for small trimaran enthusiasts. The caveat is that they switched to a canoe for the 40 mile road portage and the following 300 miles of river. They even finished the EC on time despite being held back more than a day at the start line due to the teething problems. Wow!

# Mariners' Museum Curator Talks About First Windrider Sailing Experience

April 10, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Jim Brown, Mariners Museum, windrider trimaran

No Comments

# E15 Trimaran Launched In France

April 10, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: E15 Trimaran

## Comments

### **Gallais**

April 13, 2012

Nice looking little trimaran, congratulation. My Tremolino tri is moored at Sanguinet, near your sailing spot. Hope to meet you sometime on the lake. I am homebuilder too and have built some cats and tris. My Tri is the yellow Trem on the picture in the D. Newick internet site.

Patrick

### **Tim**

April 14, 2012

Patrick, Thanks for your comments. We have seen your Tremolino many times - very nice too. We should back at Sanguinet at the end of the month/early May, maybe see you there, we will be at the camping car stop-over.

### **Stefano**

September 17, 2012

Bonjour Patrick...

very well done ! Your wife took off not only one ama but probably about 15 kgs body weight too. This makes the main hull and one ama float more and probably plane better ...hard to beat...

Please, make some detail pictures of the connection ama/aka, they look quite interesting

### **Andrew Bartlett**

February 22, 2015

What a great looking proa Tim, any chance of getting plans for this?

Andrew

### **Robert Geary**

September 14, 2015

How do I get a copy of the plans emailed to me?

### **Small Tri Guy**

September 15, 2015

I do not know that any formal "plans" are available for this boat.

# Seagull Trimaran Building Photos (and Video)

April 13, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: seagull trimaran

No Comments



# Yellow Seaclipper 10 Trimaran BANANAS

April 13, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, seaclipper 10 trimaran

## Comments

**Tom Sorensen**

April 19, 2012

very cool. nice to see some other people figuring out what a great little boat this is. it looks like John has put more flare into the main hull than my older boat has. I've got the spinnaker, but never rigged it. I'm loving my junk conversion too much right now to play with it ;-)

**Mike**

August 27, 2012

This looks like a great project, where can I get the plans to build this trimaran.

**Small Tri Guy**

August 27, 2012

Building plans may be obtained from John Marples. You can contact him via the contact info provided at <http://www.searunner.com>

**Glenn**

September 21, 2013

Where can I find plans for the Searunner10?

Thanks

**Small Tri Guy**

September 21, 2013

Hi Glenn,

You can obtain plans for a Searunner 10 from John Marples. His contact info (which can be found at <http://www.searunner.com>) is as follows:

MARPLES MARINE

John R. Marples, NAMS-CMS  
295 Bayview Road  
Penobscot, Maine, 04476 USA  
(207) 326-8096 phone/fax  
e-mail: marplesmarine AT gmail.com

**TONY DOWNS**

March 24, 2018

Do you have the wt of Amas and main hull separately please.

**Small Tri Guy**

March 24, 2018

Hi Tony,

John Marples would be able to give you the weights. His contact info is posted above.

# Another Kayak Trimaran on the Water

April 20, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: kayak trimaran

## Comments

**Steve Piwowarczyk**

July 18, 2012

Looks impressive. What are the sails areas and the length of the yak?

# Woods' Strike 15 Racing Dinghy Trimaran Coming

April 22, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, Strike 15 Trimaran

## Comments

**Ladislav Zágiba**

March 28, 2013

Dear Sir

Let me ask you for information.

The site I saw trimaran 15th Strike

Very interesting design, I am interested about documentation.

I do not have contact.

Thank you

Ladislav Zágiba

Czech Republics

**Small Tri Guy**

March 28, 2013

Hi Ladislav,

You can contact Richard Woods (the designer) at his website — <http://www.sailingcatamarans.com>

**Terrence Greene**

August 20, 2013

Hi guys, I am very new to the concept of trimarans, I am wondering if there are currently any applications out there for rowing vessels- like bigger/more stable than a scull but more sleek than a traditional rowboat. My goal is to find and or create a transportable multihull rowing scull I can use in a calm/semicalm ocean on the east coast.

Thanks for any insights and or guidance

**Small Tri Guy**

August 20, 2013

Hi Terrence,

As you can imagine, the challenge of putting oars on a trimaran is significant because of the outrig floats on both sides of the main hull. Here is how one fellow created a rowing design to deal with that issue - <http://smalltrimarans.com/blog/?p=7997>

All the best to you ... please let us know if you create something new along this line!

**Scott I**

March 24, 2017

On the Strike 15 page of Richard Woods website, it currently says a completed tri (his prototype?) on a trailer is for sale in PNW, asking CAD\$4000.

<http://sailingcatamarans.com/index.php/designs/27-trimarans-under-25/223-strike-15-trimaran>

# Uffa 10 Trimaran Now Launched

April 26, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Uffa 10 trimaran

## Comments

**LSaube**

April 28, 2012

Nice boat! What would be the reasons to move to a Cat rig over the current sail plan, simplicity or class rules perhaps?

**aurelio**

May 15, 2012

only for simplicity...for next month i will have a gennaker (6 sqm) to add at sloop sail plan

# Folding DIY Trimaran with a Major Hull Redesign

April 28, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: diy trimaran, Frank Smoot, Jim Brown, multihull

No Comments

# Jim Brown Talks with Frank Smoot About Small Trimarans

May 4, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: diy-tris.com, Frank Smoot, Jim Brown, small trimaran

No Comments

## 2 Self-built DIY Tricote Trimarans in France

May 8, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Hobie hulls trimaran amas, Tricote Trimaran

### Comments

**Nick Seifert**

December 9, 2012

I don't have a comment yet, but I do have a question—I recently purchased a 17' Texas-tri trimaran— I plan on restoring it. It is in fairly decent condition—What I would like to find is books or any information on this boat, how to rig it, what rigging is needed, position of all items. basically any and all information that I can get. I have been over 30 years since I last sailed, I have always wanted a multihull sailboat

thanks Nick

**Nick Seifert**

January 24, 2013

any help on finding information on the Texas-tri 17' trimaran –photos, rigging, anything thanks

**Patrick**

February 8, 2016

Hi Fabien, I live in South Africa and have access to some Hobie 14 hulls. I would also like to build a Small Trimaran for our Sea Scouts Group (Florida Lake Sea Scouts). Have you got any Plans/Photos, Dimensions, etc. that could assist us.

Regards

Patrick

# Another Wavelength 780 Trimaran Recently Launched

May 13, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Robert Forster, Wavelength 780 trimaran

No Comments



# Trimaran Rowboat Owner Wants to Attempt Crossing the Tazman Sea

May 20, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Trimaran Rowboat

No Comments

# Motive Trimarans – New Beach Tris Under Development

May 21, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Motive Trimarans

No Comments

# Nicky Cruz Explorer Trimaran Still Taking Shape in Germany

May 21, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Nicky Cruz Explorer trimaran

No Comments

# Jim Brown & Andy Zimmerman Talk Hydrofoils on Small Trimarans

May 24, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Andy Zimmerman, hydrofoil trimaran, Jim Brown multihull, Windrider Rave Trimaran

## Comments

**Fred Goldfarb**

May 28, 2012

While in college I had a course on some hydro/aero related subject. I was able to get the professor let me do for a final project (instead of answering a number of difficult problems) a set of hydrofoils for a small sailing trimaran (my Brown 25 Searunner in fact)! I got an A on that and I think an A in the course. The foils were simple "ogival" section (flat on one side, steady curve on the other, like a section from a circle extruded). However, they were curved to go under each ama with the curve going inboard, and and flat section facing away from the vessel. Net effect would be to both lift and stabilize the boat. I never got to actually build and test them, but my professor thought it was a pretty cool final project design. Somewhere in my files I still have that paper, sketches, calculations, etc.

When I worked in naval architecture we worked (including me) a hydrofoil patrol craft for israel. Used 3 inverted "T" foils and gas turbines (jet engines) for power. Unclassified speeds were 28 knots in displacement mode and 70 knots flying. Top speed flying was probably really closer to 100 knots, but that's just my educated guess.

I've always wished David Keipers' work was continued, since he crossed the Pacific in a 31' hydrofoil trimaran (Williwaw).

# Self-designed, Self-built Small Trimaran Just Launched

May 28, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: small trimaran

## Comments

**jason nabors**

June 29, 2012

LOA 13'10"

LWL 13'

VAKA Beam 5'2"

AMA beam 12'

Lateen sail area 85

Jib 33

Total sail area 118 very low aspect sail.

Draws 6" center board up and 3' when down.

The hull is super stable I mean really stable maybe 5 degree of heel 20+ winds. The whole design is a collection of boat I have seen in the past. Potter being my main influence. If you couldn't tell. The cabin has 3'6" of headroom and the cockpit is self bailing and has a tent that sets over it making an additional room. Or as I call it the guest suit. The guest suit has 5' of headroom with the tent on. The down side...

The low aspect sails make it slow to windward but nothing a hobie 12 or 14 rig can't solve. That being said all in all it performed well and got us to the end of the Texas 200 without really any major issues.

Thanks for your interest in my tri and if you have any other questions I would be more than happy to answer them.

Jason Nabors

**Small Tri Guy**

June 29, 2012

Thanks for the additional info Jason. I'll contact you soon for some more info on your small tri here.

## 2 New Trimaran Building Plans at Duckworks

May 31, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Duckworks, Paolo Lodigiani, Tricky Five Trimaran, Trillo Trimaran

No Comments

# Solar Trimaran Canoe on the Mississippi River

June 4, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: solar trimaran canoe

No Comments

# Mike Leneman from Multimarine Talks Small Trimaran Building

June 6, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: build trimaran, Jim Brown, Mike Leneman, multihulls, Multimarine

No Comments



# Self-Built Trimaran Sailing Canoe in Brazil

June 14, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: stitch and glue boat construction, trimaran sailing canoe

## Comments

**john farrell**

June 14, 2012

very neat, lots of good idea's there.

I have built my own 13' tri complete stip build and enjoy sailing it, still playing with different sail and outriggers for different conditions.

**Danilo Veleirok**

June 14, 2012

Alexandre,

Dá uma olhada na vela VK. Me coloco a disposição para quaisquer detalhes.

<http://veleirok.blogspot.com.br/p/vela-vk.html>

Uma vela wing flexível, sem costuras e que você mesmo faz, e de baixo investimento.

Parabéns pelo trimarã!!!

**Wolfgang Bunjes**

June 15, 2012

Hi Alexandre,

congratulations to your beautiful new boat and your craftsmanship. I'm pretty sure the people at bateau had never imagined, what could be done with their "cheap canoe". Well, i also live in Florianopolis and i'm building a modified Gary Dierking canoe right now. So it would be nice to meet you in person one of these days to exchange ideas. Please give me a call at 3209-1269 or 9615-0098 .

Um abraço

Wolfgang

**mark harrison**

June 19, 2012

i think this is very very inspiring. you made the hard work look easy! i hope you will put a bigger sail on her and show us the tri planing across the water!

**alan johnson**

June 25, 2012

nice little boat, lot of work isn't it? if you want to see the 8 foot version that goes on a cartop check out ajsailandpaddle on youtube.

so many people are doing this looks like an idea whose time has come.

**Small Tri Guy**

June 25, 2012

Here is a link to the video that is mentioned above by Alan:

<http://youtu.be/AuWO022UwYM>



<https://youtube.com/watch?v=>



**Martin Kitchen**

July 9, 2012

That's beautiful and exactly what I've intended to build for my son and me. Able to be used as a canoe when checking out the local mangroves, then sailed too. Incidentally, that's a sprit rig. A lug has the sprit attached along the head of the sail like a gaff.

# New Update on the Dragonfly 14 Trimaran

June 20, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: beach trimaran, Dragonfly 14 trimaran

No Comments

# Introducing the Searail 19 Trimaran (19' Trailer Tri)

June 22, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Nigel Irens, Searail 19 trimaran, Searail trimaran

## Comments

**Frank**

June 22, 2012

Nice boat, but geez, \$30 grand for an 18 footer? Wow! Must be the priciest one on the planet! And the goal was to make it "less costly" than similar production boats? Does it make come with its own tow vehicle?

**Small Tri Guy**

June 22, 2012

As you know, there is definitely a price differentiation between self-built boat and production boats. This boat is going to appeal to sailors that have a bunch of disposable income ... and spouses that let them spend a little of it :-)

**ian**

June 23, 2012

I can't even imagine what it would cost to set up a fully approved, inspected and 100% legal commercial boat building facility anywhere in a CA coastal area these days, not to mention the ongoing costs for permits, licenses, insurance, etc. and payroll for someone to do all of the administrative data collection and reporting required by various governmental agencies for having or getting rid of stuff like waste resins, solvents and similar toxic materials.

I'd be interested to hear from anyone who has done it in the last 10-20 years or so what percentage of their out of pocket costs were a result of this stuff...it has to be staggering.

The world's largest surfboard blank manufacturer ceased production over what they concluded was an insurmountable maze of agencies and byzantine environmental laws that were actively being used to drive them out of their manufacturing plant in Orange County, noting that even selling the plant buildings and equipment was pointless, as you could by an entire facility outside the USA for the cost of permits to even begin attempting to get this one compliant in CA-

<http://www.surfermag.com/features/clarkfoamletter/>

Truly sad that the new generations of Hobie Alters and Bill Lees and Norm Crosses and Gordon Clarks are persona non grata here and being saddled with this kind of BS that is a huge part of what makes an an 18" boat cost 30K and even a cheap surfboard cost \$300-500...by federal alphabet soup agencies making work, and a state whose (former) riches and (former) positive reputation as a vacation destination owe a huge debt to the commercial boat building and surfing industries that have simultaneously been scapegoated and driven out of business by extremism and intransigence.

I'll get off my soapbox now, but first, this seems apropos...google it if you don't recognize the source.

"He has erected a multitude of New Offices, and sent hither swarms of Officers to harrass our people, and eat out their substance."

**Frank**

June 24, 2012

All I can say is amen, brother. But if there's a plus here, it's that more home-builders will be encouraged to make their own boats. For \$1000 or less and a few hundred hours of your own labor, you can have a 16-20' tri that will go fast enough to be genuinely exciting. And if anything breaks, you can fix it!

**Stefano**

June 24, 2012

If 30 K USD is considered in first place to be inexpensive for a trailerable dayboat under 20 ft ...the crazyness mentioned in other comments certainly did not strike only govt agencies in western world... but the entire "market"

**Frank**

June 25, 2012

I absolutely agree, Stefano. You can get two decent brand new cars or one really nice one for under \$30,000.

What amazes me most is the fact that this 18' tri is manufactured in Viet Nam and is STILL ridiculously expensive. How much would it cost if it was built here in Florida? I can't imagine it would be all that much more.

In any case, none of the folks I know have enough "disposable" income to dispose of that much of it on an 18' tri. Must be aimed at the Middle East buyers?

**Small Tri Guy**

July 3, 2012

Hey, let's not forget there is a market for this boat. A financially successful entrepreneur, for example, will measure the value of their time against how long it would take them to build their own boat (assuming, of course, that they even want to learn how to build a boat like this). And such guys would gladly pay the money to get this sort of trailerable tri.

That's my favorite example of who would be in the market for a Searail trimaran. (I won't mention my "least favorite examples" of guys who'd be in the market for it. :-)

I wish Phil every success!

**ian**

July 4, 2012

I hear what you are saying, Joe, but in the context of a startup boat building enterprise it is dangerous and all too common assumption to decide that a viable "market" exists because \*some\* people will buy a product regardless of its price, usefulness, etc.

Put another way- a million people willing to pay a dollar for something they need is a "market", one person willing to pay a million dollars for something totally unnecessary may technically be a "market" but it's a very small and fickle one.

Sure, there are people who will pay big money for ultra-specialized toys, but the financially successful entrepreneurs I know didn't get there by being cavalier with their money, and all of them have an almost congenital dislike of paying more than is necessary for the value received.

Even before the economy really tanked, the market for existing used boats was soft, the market for used multihulls is pretty much always soft to begin with, and there are all kinds of very nice, complete boats out there going for pennies on the dollar...it's going to be an especially hard sell when those entrepreneurs make the final judgment of whether this boat will deliver, say, six times the speed or convenience or fun of a used, well equipped Cross 24-26 that can be had for around 5K...

True, that Cross isn't trailerable, but don't forget we are talking about people who can afford a \$30K daysailer- that extra 25K could pay for a lot of slip fees, the kind that well off people pay all the time, in many cases for the convenience of not hassling with a trailer.

Also don't forget that rather than learning the skills necessary to build something custom, a person wanting a very specialized boat like this could employ some of the many skilled but currently unemployed US boat builders out there to put something together, and could fairly easily come in under the \$30K mark AND would have a custom boat.

Even if they didn't care about price and paid the full amount this boat costs, they'd still have the benefits of customization...maybe I'm totally off base, but having been involved in the worlds of big bucks yachting and boat building, my gut tells me that of the pool of people who would even consider paying big money for a boat of this size, the vast majority are going to be the type to make the most of their cash outlay, and the numbers of people willing to just cut a check for \$30 K just so they can have it off the shelf is simply not going to be sufficient to support this offering.

I take no pleasure in saying this- it's obviously a very nice boat designed and produced with great care and no doubt is fun as hell to sail, and in a perfect world such an offering would be back-ordered from day one...I hope they are wildly successful with it and prove me wrong in spades, but history and economic reality just don't point that way.

#### **Small Tri Guy**

July 4, 2012

Yes, the "market" may be very small. Time will tell. The number of potential customers, current economic conditions, availability of disposable income, marketing savvy, etc., will all play a role and affect how much success will be achieved. I often wonder if the "new rich" (meaning the growing base of wealthy entrepreneurs in places like China and other parts of the East) will get into multihull sailing. I've read where they are buying big ticket "sports and lifestyle" items in a big way.

#### **Jerzy Giedwojn**

November 18, 2012

On dealer's page not much info. No price on a dealer's page. No tech data. Video on folding short on important detail. Appears primitive. Can anybody move as fast as the demonstrating person?

Good idea but the price mentioned at \$30,000 sounds like a joke.

I hope similar in size and weight designs will appear at reasonable price.

#### **Frank**

November 19, 2012

I watched their "first sail" video and their "assembly" video. It's a shame they couldn't have had some decent wind that day, as a good kayaker could have passed them at any point.

The assembly video had so many breaks in it that you have to wonder how long it \*really\* takes to put it all together and get out on the water. I do kinda like the aka/ama assembly part, but I notice he struggled with it a bit. The mast raising, on the other hand, looks like a total PIA. All in all, I still can't see anything close to 30 grand there.

- Frank

#### **steven**

December 9, 2013

boat looks nice, a larger and more refined version of the weta, which i have sailed and set up before. 30k versus 10k for the weta. windriders are in the affordable and FUN category at about 12k for a new 17 and used for anywhere 3k and up. i had always liked the europa 20 and there are still quite a few tremolinos out there. a few 27ft corsairs have gone for around 30k. corsairs are the true trailerable type trimaran. i have personally owned stiletto 23 prindle cats hobies 25ft searunner, windriders 16, 17 and a rave. a heavily modified sailbird 18 which i did see the need to have a watertight compartment up fwd, and did use a lot of catamaran parts on it to do what i wanted. i currently own a corsairf28r which i truly love and it has surpassed all my expectations.

now we look at the definition of trailerable and demountable which has a direct impact on the fun factor and the amount of time to set up and derig the boat at the end of the day. the corsairf28r(trailerable) by myself takes an hour and 10 min from trailer to water to set up by myself and 55min to derig and go down the road. windrider 16(demountable) about 25 min the 17 about an hour. the rave about an hour and a half(demountable) most beach cats about 30 to 45 min(trailerable) the stiletto 23 4 hours to set up(demountable)

# Strike 15 Trimaran Prototype Under Construction

June 26, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, Strike 15 Trimaran, Strike trimaran

## Comments

**Tom**

June 26, 2012

Wow ! I really like this trimaran. This is my new favorite, second only to Frank Smoot's. But Frank only suggests a plan. Here is a plan I can use for only \$100. Does anyone know if the sail is reefable? Watertribe events require 2 reefing points. Richard Woods boats rock !!!

**Stefano**

July 10, 2012

Could it be that the bottom is too narrow for the intended use ?

My tri is 420 cm by 40 at the waterline, and it planes only with one person aboard, with an 11 sq metre rig.. Weta and strike 18 are both much wider in comparison at wl than the strike 15.

# Audio: Discussion About Piver Trimarans Between Jim Brown & Mike Eaton

July 5, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown, multihulls, Piver Trimarans

No Comments

# Seaclipper 16 Trimaran Now for Sale

July 16, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: John Marples, SailOklahoma, Seaclipper 16 trimaran

## Comments

**Larry S**

July 17, 2012

Incredible workmanship on this boat. Someone will end up with a real nice trimaran!

**Richard Hart**

August 18, 2012

I am interested in the sale price for your Sea Clipper 16. Also what is the current location of the boat as i live in SW- Ontario, 1 hr. from port Huron. MI.

**Jim Banks**

September 27, 2012

Hi Bob,

Is the boat still for sale?

**paul fairbrother**

January 26, 2013

is TRINKET still for sale?

**Small Tri Guy**

January 26, 2013

Hi Jim, Paul,

Try emailing Bob to see if it has sold yet or not - bvtrygg AT hughes.net

**Dave**

October 15, 2017

hi everyone, as the new owner of Trinket, i have enjoyed her tremendously with my family for the past several years. We have now purchased a much larger sailboat so it's time to let her go.. if you're interested in buying her, please text me at 760-213-1000

See her in action here:

<https://www.youtube.com/watch?v=ExKB1LVNOQo>

<https://www.youtube.com/watch?v=8n4pW5ALjs4>



# Introducing the Spirit 422 Trimaran (from Italy)

July 19, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Spirit 422 Trimaran

## Comments

**ian**

July 21, 2012

It's a very intriguing design and I think they are on to something with the general hull layout, at least what I can see from the pics...

Just from a static flotation standpoint it appears that the center of buoyancy is pretty far aft, especially the amas...which might seem a bad thing but maybe not so much for a boat with the seahandling qualities inherent in a tri, and especially at the upper limits of what a boat this light can potentially do.

Over-canvassed ultralight mono racing skiffs and sailboards put people way far aft to keep the bows from submerging at speed and stay on plane, and a tri can not only offer a lot of this leverage with a standard deck layout and no trapezes or hiking boards, it does it with the added benefit of a leeward stabilizer, that in this case will plane like a dream \*if\* it is oriented to the water surface properly and there's enough wind and people willing to sit on a trampoline.

A tradeoff is that that the boat might be somewhat "tender", except in a fore and aft direction rather than heeling (is there a term for a marked tendency to hobby horse?)...I could see this being a very wild ride in a following or quarterly sea with lots of steady wind, that would require a very attentive crew sitting no more than a couple of feet forward of the transom, who would be grinning like fools.

It appears that the designers have taken some pretty bold moves in tossing out "correct" hull shapes and treating the boat as a whole rather than three more or less traditional monohull shapes lashed together, which is a great thing...I'm convinced that there will be a major trimaran design sea change or two in the coming years that will be no less of a departure from today's state of the art thinking on how to do a fast tri than multihulls were a departure from monohulls (in the west, that is).

That ama shape is a perfect example- if you've ever pinched one short side of a rectangular sheet of paper so that it forms a plumb bow, you've essentially made that shape...as a monohull it has fatal flaws but as part of a system that can be tweaked to mitigate them, it becomes a far more reasonable shape with a lot of positives- wave piercing, planing, can be developed from a flat sheet without even needing ribs to define the shape (gently teased plywood?), minimal wetted surface, nearly dead straight runs fore and aft, a pronounced wedge shape when viewed from above that should benefit pointing with a small degree of heel as the leeward edge is aimed to windward...if you can compensate for the unbalanced fore/aft buoyancy and low volume and that it looks more like something off a stealth fighter than a boat, what's not to like?

Finally, I cannot go without mentioning the fixed keel-ish fin-can't tell if it's the only lateral resistance or if the rudder is attached to it like a traditional fixed keel, or what... regardless of whether it's where it should be or the best solution, I LOVE that it makes the thing look like a Buck Rogers spaceship mated with an unlimited hydroplane from the 50's-60's or a D-Type Jaguar when it's upside down.

**Paolo**

July 21, 2012

Ian, apprezo tutte le considerazioni che hai fatto e ti ringrazio per averci indirizzato verso alcune soluzioni. Attualmente, senza sito internet è veramente difficile illustrare tutte le caratteristiche dello spirit 422 e l'ospitalità che abbiamo ottenuto presso questo geniale sito è proprio mirata ad accendere discussioni e perplessità circa il nostro progetto.

Per addentrarci meglio nell'insieme progettuale potremmo dire che tutta la barca è costruita in AUTOCLAVE adottando tecniche e materiali assolutamente performanti, ogni componente è stagno e tutte le sue parti sono prive di incollaggi a freddo.

Gli Amas che vedi nelle immagini sono lunghi 3 metri, sono interamente in CARBONIO ad ALTO MODULO ed il loro peso è di 3,7 Kg. Queste poche caratteristiche costruttive potrebbero servire comprendere meglio certe scelte "azzardate" e le forme ed i volumi associati ad esse.

Un'altra caratteristica abbastanza interessante è la possibilità di ridurre il baglio della barca in pochi secondi e per questo ho posato due brevi filmati artigianali.

<http://www.youtube.com/watch?v=0bS6LkrnY54>

<http://www.youtube.com/watch?v=Z4yR5jqe5IM&feature=related>

La pinna del timone è aganciata alla piccola deriva fissa ed è basculante.

Oltre alla piccola deriva integrata che vedi nella foto della barca appena Sfnornata esiste un deriva tradizionale a baionetta posizionata a prua del baricentro della profondità complessiva di 50 cm.

Dalla prossima settimana sarò al mare con barca e famiglia ti saprò dire circa il suo comportamento sull'onda, (già testato da tempo) magari con qualche filmato.

Grazie ancora per il prezioso aiuto

Paolo

**ian**

July 21, 2012

Paolo-

Thank you for the response...even with a bad internet translation (one site says "absolutely every component is Tin", lol) it makes perfect sense to me.

I completely understand what you are saying about the ama weight making the non-traditional shape more viable; when you can achieve such radical weight reduction it changes a lot of rules about what shape you \*need\* to have to make it work. This ama only has to support a fraction of the dead weight of the same design built heavier, which increases its effective buoyancy without any increase in wetted surface or overall size, and the lighter weight means less stress from inertial forces as it moves

around in use, which in turn means you don't have to build the supporting structures so heavy to deal with those forces- other than the increased cost of the ultra light materials, it's a win all around.

One of my biggest inspirations for thinking about what could be done with small, light trimarans is watching a styrofoam coffee cup being blown across water- it doesn't need to plane in a traditional sense, doesn't need a "correct" hull shape, and doesn't even need to be pointed in any particular direction to reach speeds close to the wind itself, because it is so light that all of that stuff doesn't really matter.

If that kind of light weight can be achieved with a boat that actually does have a good design, the speed potential grows dramatically...you are definitely moving in that direction with such lightweight components and I can't wait to see it in a good breeze.

one more thing- in the picture of the upside down main hull...I can't tell if those blocks it is resting on made of styrofoam, or are they fine Italian marble?

Even if it's just foam, the light weight that doesn't crush it is very impressive...but the idea that Italian boat builders would have blocks of marble just laying around to use for this purpose makes me smile :)

**Paolo**

July 22, 2012

Ian, i blocchi bianchi sono di polistirolo, il Marmo Bianco di Carrara è troppo prezioso anche per noi !!!!

Sulla questione peso condivido a pieno le tue opinioni e ti racconto brevemente due passaggi.

La Barca è nata su un progetto che prevedeva la costruzione con tecniche tradizionali di laminazione. Il peso della prima versione era di circa 150 Kg. del tutto in linea con barche simili prodotte da altri cantieri (la nostra barca è completa di pozzetto e non è un guscio aperto) dopo innumerevoli prove con esito sufficiente ma non esaltante, quale l'eccessivo ingavonamento dell'amas sottovento e la difficoltà nel mantenere fuori dall'acqua quello sopravvento, con la conseguenza che in condizioni di poco vento era difficoltosa la virata e mancava l'accelerazione tipica dei multiscafi. Avremmo potuto continuare con quella filosofia, affinarci, migliorare qualcosa e produrre immagini di ottima qualità, montare filmati dove si evidenziavano solo i pregi e si nascondevano i difetti ma ..... abbiamo scelto un'altra strada.

Abbiamo abbandonato la strada della laminazione classica, quella con il metodo dell'infusione e siamo approdati alla costruzione in AUTOCLAVE.

Ti assicuro che nonostante lo scafo centrale sia ancora costruito in vetroresina, questa tecnica ci ha permesso un completo sconvolgimento degli spessori della struttura che adesso è composta da un sandwich in Nomex fasciato da pelli in vetroresina pre impregnata e due strati in Kevlar per garantire l'antifondamento.

Tutta la barca ora pesa circa 60 Kg. (in realtà qualcosa in meno) e quando diciamo tutta la barca la intendiamo pronta per navigare, con albero, boma vela timone deriva e quant'altro necessario alle manovre.

Eravamo certi che la scelta di ridurre i pesi avrebbe comportato un miglioramento ma in realtà la barca è completamente cambiata. Come giustamente dicevi tu, la risposta al vento è molto più reattiva, la barca naviga sempre su due soli scafi senza che per questo gli stessi debbano essere montati eccessivamente rialzati dall'acqua, non si ingavona più con il vento forte tanto che, visto l'abbondante margine di sicurezza, stiamo preparando una randa montata su di un albero alare di circa 13 mq. incrementando di circa il 30% l'attuale piano velico.

Un ultimo dettaglio, l'albero è scomponibile in tre parti, è "solo" inserito in coperta, non ha sartie e ovviamente è in carbonio. Anche questo serve alla filosofia ..... armo la barca in pochi minuti e trascorro il tempo rimanente per navigare.

Ciao Paolo

# Couple of New Muffolo Trimaran Videos

July 23, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Muffolo trimaran

No Comments

# Jim Brown Talks to Richard Woods About His Small Trimaran Designs

July 27, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown, multihulls, Richard Woods, small trimarans, Strike 15 Trimaran, strike trimarans

No Comments

# Weekend in a Wavelength 780 Trimaran

August 7, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Wavelength 780, Wavelength 780 trimaran, Wavelength Trimaran

## Comments

**Andrew Fyfe**

December 9, 2018

Hi I am trying to get in touch with Bob Forster if anyone can help me out please.

Cheers

Andrew

# Plans for a True Small Trimaran at Chesapeake Light Craft

August 13, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chesapeake Light Craft, double outriggers, sailing kayak, small trimaran

## Comments

**ian**

August 13, 2012

It's a very sleek and sensible looking design and will be neat to see one in action...

a couple of points about the design parameters listed in the article-

The structural aspect is certainly a huge issue but most designs I see tend to stick to very traditional sailboat design technologies where the hull structure and skin is used as an integral part of the staying of the rig and as a result takes on additional weight...whether through clever design or use of high tech materials or both it would seem entirely possible to create a framework built around and including the crossbeams that could support the rig and provide suitable beef for attaching rudders, boards and running rigging by itself, so that any beefing up of the hull structures beyond that needed to hold their shape could be kept to the points where the hulls attach to that framework, which will always be more substantial to begin with. The hull skin then becomes little more than a means of keeping water out.

But it is this part-

"The outriggers ("amas") need to be very large to handle racing-cat speeds. The rule of thumb, if you're designing a sailing trimaran from scratch, is that they need to be 120% to 200% of the displacement of the entire rig."

-that I find puzzling in light of the fact that vessels like mono racing skiffs and sailboards regularly reach and even surpass racing cat speeds without the use of \*any\* outriggers (or foils). This rule of thumb may hold true for a boat designed around a kayak, but it seems to assume that ama displacement is the only available means of stabilizing a trimaran...it's especially puzzling considering that the design featured places the crew away from the centerline- presumably to windward- and by default that leverage provides non-displacement righting moment. Sure, it requires physical exertion, but in a racing context that's pretty much accepted as part and parcel of getting high speed out of a small boat.

Another factor that significantly affects the required righting moment is the leverage of the sails themselves that is always trying to push to boat over to leeward in a more or less traditional fore and aft rig...again, looking at sailboards there is another solution, which is to convert some of that wasted energy to lift by tilting the rig to weather-

"A direct consequence of the "Free Sail System" of Schweitzer and Drake is that in strong winds the operator inclines the sail to windward, rather than allowing the sail to heel away from the wind as is the case with all conventionally rigged sailboats. Because the wind-induced force of a sail (or aerofoil) is always perpendicular to its surface, when the sailboard sail is inclined to windward it has a portion of this force directed upwardly against the downward force of gravity. This upward force lifts the hull partially (or even completely) out of the water, thereby reducing its frictional and wave making resistance, and increased speed results. "

<http://www.wingo.com/chriswhite/tiltrig.html>

-the above is a fairly complex means of achieving the effect; studies of crab claw designs and delta shapes show that similar effects can be had using those designs-

[http://www.multihull.de/technik/t-slotboom\\_gb.htm](http://www.multihull.de/technik/t-slotboom_gb.htm)

- combined with the lower aspect ratio and reduced weight aloft of those designs, this introduces quite a bit of range to the forces involved and many possibilities for adjusting the interactions between the various forces at work.

There's certainly a lot to be said for traditional fore and aft rigs and they probably make the most sense overall for most recreational applications...but at the same time, their design development has almost never had anything to do with what is best for multihulls, and many of the features commonly thought to make them higher performance, like huge roached mains and super high aspect ratios, were developed within the context of strict racing rules designed in many cases for heavily ballasted boats- AND those rules in most cases were designed to limit performance in non-one design classes to make sailing skill the deciding factor in who won, rather than rewarding sheer boat speed born of technological superiority.

**Small Tri Guy**

August 13, 2012

Wow, great comments and insight Ian. Great links too! I hope the guys at CLC consider what you've shared in the above. When it comes to small tris, I know you've given a lot of thought to merging lightness of weight and simplicity of building (at lower cost) with higher performance.

**Jeff Jasin**

January 17, 2013

Thank You ! Ian I am about to embark on building a sea kayak trimaran based on the Glen L Design. I am giving very serious thought about the potential of inclining the rig to windward. ( I learned about it from Dick Newick's boat ) Your remarks on the ama displacement ratios are quite timely. Also I concur about beefing up structure around stress points, these stitch and glue kayaks are skins, and I don't want the rig to rip the boat apart. I am very appreciative. Jeff Jasin

**Guy**

March 7, 2015

Can you do an update n the progress of this boat, I have a lot of confidence in this company, thanks, Guy

# 12-foot Custom Folding Trimaran Looking for a New Sailor

August 17, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: folding trimaran, Mark Gumprecht, plywood trimaran, small trimaran

## Comments

**ben freeth**

September 4, 2012

we are two boys of 12 and 10 in zimbabwe who are keen sailors who want to build a trimaran. Could you please send us your plans for the trimaran? thank you.

**Small Tri Guy**

September 4, 2012

Hi Guys,

I know that Mark would love to send you "plans" for this small trimaran, but I am pretty sure he doesn't have any. If you search around this site you will find a few little trimarans that you can get plans for FREE :-)

**Rick Robinson**

September 28, 2012

Is the Tri still for sale, Rick

**Anton**

March 23, 2013

Ha! I'd have offered \$2500 for him to bring it to Ca!

# Threefold 6 Trimaran & Multi 23 trimaran in Russia

August 24, 2012

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Dudley Dix, Multi 23 trimaran, Threefold 6 trimaran

No Comments



# Seaclipper 24 Trimaran Building Project in Maine Almost Finished

August 24, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, Seaclipper 24 trimaran

## Comments

### Wade Tarzia

August 24, 2012

I am glad to see this is getting back to some of the successful aspects/sizing of Jim Brown's first trimaran, Juanita, whose cockpit was modified slightly from someone else's design.

### Larry S.

August 26, 2012

Can't wait for the launching/sailing report! Great to see one of these nearing completion.

### Larry S.

August 26, 2012

For clarification is the full cabin version?

### Andrés

September 6, 2012

It will be very interesting to see the pictures of the interior of the boat and with somebody in it, to see the real dimensions of the boat. In the plans looks like it has very little accommodation for a 24 foot boat, but some times the real thing is bigger than it seems in the plans.

### Small Tri Guy

September 6, 2012

Keep in mind that plans for the Seaclipper 24 offer 2 different possibilities for an interior cabin. Builders can choose to build either a very small cuddy cabin or roomier interior space that would allow for a bit more room to do camp-cruising. Perhaps Lenny will share some interior photos with us during his next update.

### Andrés

September 6, 2012

Yes, I know both versions and I think the DS will be a wonderful daysailer with a lot of cockpit space. Also it is lighter than the cabin version, so it might sail better. But I think the cabin version is better as a small cruising tri, and this boat is unique in its low tech approach.

### Jeremy

September 8, 2012

Can't wait for a sailing report- hoping I'm about halfway through the build of my seaclipper 24 and I'd love lots of updates!

### Lenny

September 11, 2012

Launched this weekend (video to come soon). We had very light wind but she handled great.

This is the full cabin version. It does not have a lot of room and I have not finished the cabin interior work — saving that for this winter. Opted to go sailing first :)

### Small Tri Guy

September 11, 2012

Hey, congrats Lenny! Can't wait to see your video. If you remember, please post (or send me) the link!

### Andrés

September 11, 2012

I'm also very interested in the video and more pictures. It doesn't matter if its not finished yet!

### Fred Goldfarb

December 1, 2012

The design reminds me a lot of early tri designs like the old Piver 25' Mariner, and similar designs, like the Buccaneer 24, and even my old Searunner 25, though that was a center cockpit design, but still had two interior single bunks. Considering I have cruised for several days at a time on both an old friends' stretched Piver Mariner as well as cruises of up to 3 weeks at a time on my Searunner 25, I'd say the Seaclipper 24 with the full cabin would be a terrific coastal cruiser for any single sailor or couple who don't mind or don't need full standing headroom. Add a boom tent with front, side, and rear drop down panels and you have standing headroom when at anchor. The folding ama feature will be especially valuable to anyone who needs to haul out at a marina or yacht club where space for winter boat storage is tight, often the case around the greater NYC area. Another side benefit is due to not needing the usual poppets used to keep monohull sailboats upright while stored on land, the chance for a bad storm like we had a month ago doing damage by causing boats on poppets to fall over due to the poppets sliding over gravel is nil. (That happened to a few boats at a local yacht club, where several boats fell over like dominos on the next one over until 5 boats were on their sides. If you're using poppets go for the ones without flat bottoms that may slide on gravel, which is what happened at that Y.C.)

### Tom H

December 29, 2012

Hello and Congrats!!!

Have been secretly considering another build project - and your 24 is near the top on my list. Like everyone else, anxious to see the videos!

Am just a few miles away in Mass. If you have any "Visitor Days" (ashore, not sailing days) when you might be willing to let someone crawl around the boat - I'd surely appreciate being on the list of invitees.

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Boat looks great, good on ya!

TomH

**Lenny L.**

April 2, 2013

I just found Lenny's seaclipper 24 video on youtube. Nice boat.

<http://www.youtube.com/watch?v=8DAZWwpc8yo>

# Restoring a Newick Designed Argonauta Trimaran

September 8, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Argonauta trimaran, Dick Newick, Tremolino Boat Company, Tremolino trimaran

## Comments

**ian**

September 8, 2012

I think Newick's influence still hasn't been fully realized yet- he was arguably the first person who made it OK to go out on a limb with really radical design concepts that treated multis as purpose built sailing machines and didn't slavishly follow traditional ideas just for the sake of tradition.

But he also has a great understanding and appreciation of the reasoning behind why Polynesians did what they did when developing the first multihulls, and he's equally willing to do things the old way when it makes the most sense, only upgrading to better materials like with the very traditionally shaped curved akas that are something of a signature.

I think it's safe to say that Dick Newick's designs opened the door to the whole water spider-like maxi-tri phenomenon and in so doing did a lot to break trimaran design away from the grip of very fundamentalist notions about how boats "should" be built and/or look.

Before boats like "Moxie" blew everyone away, tris had a pretty checkered history as far as being consistently safe ocean passage makers, let alone really fast ones... Newick proved again and again that his successes were not flukes, and that tris didn't \*have\* to be unsafe or unsound in extreme conditions, and also proved that the proper direction to achieve this end was to embrace the whole light/spindly thing and exploit its advantages rather than try to build a boat that remains rigid in the face of ocean swells.

**Philip**

October 11, 2012

I confused why it called an Argonauta 30. Another recently cited Argonata (Zoom) was likewise labeled 30. Contacting Mr. Newick he does not recollect any 30, only a 26 and 27. I am very interested in these trimarans but am just confused. LOA doesn't include rudders or bow sprit if any. One thing I have noticed is the considerable vertical growth of the forward cabin between a 26 and a 27; hence perhaps accounting for most of the advertised weight difference (1400/2000 vs 2500 lbs.)

I look forward to your progress. I am wanting to learn more.

**Small Tri Guy**

October 11, 2012

Hi Philip,

The 30' designation was my mistake. Sorry for the confusion! You are correct. As far as I know, the Argonauta was produced as a 26 and 27 footer.

**Duane Hillabush**

December 10, 2012

I acquired the molds for this Tri after the owner of Tremolino boat company died.

I still have them in storage here in California. I have been planning on building one since. Am curious how your project is going.

**Tom**

July 24, 2014

There was a guy in southern Maine I lost contact with. He was building probably the only version of the Newick B2 which was basically Argonauta for home builders. There was also an earlier version of the concept that I have the plans for, that at least one trimaran was built from, and it was last seen in the mid west.

Newick was serious about this design, given that he designed at least three versions of it. The market was normally pretty unforgiving, regarding it as ugly, and preferring, at least in their comments, to bestow favour on boats that while pretty were not really well rounded in these shorter sizes. In 21 foot sizes and larger, this is the least trim sensitive approach with the best accommodations and storage, but it isn't going to be the fastest in races.

If anyone can put me in touch with the dude in South Maine, perhaps through this website, that would be great. In addition to stalling out (last I heard) on his B2 build he started a bicycle shop business, and was also an avid stripper fly fisherman. I would love to get back in touch, but unfortunately his info is lost in some email data files I can't open any longer.

**Tim Brewer**

February 28, 2015

I am hoping to find an Argonauta for sale.

**Galen Piehl**

May 27, 2015

Is this the same Able who had a tremolino in Port Townsend 20 some years ago? If so I used to sail with you and would love to get back in touch. Galen in PT.

**ED HAILE**

October 17, 2018

The "friend of Mr. Newick" and the founder of the Tremolino Boat Company was named John Olin. I met him in early January 1997 when he delivered my Tremolino. Very soft-spoken and warm, late 60s, had many a boat yarn and deeply admired Newick and his concepts. The Tremolino concept was Moxie's hull reduced on her lines, except for freeboard, until her size was right for a Hobie 16 rig. The name Tremolino was taken from Joseph Conrad's yacht, Italian for "little trembler". But Olin pointed out it

2/15/23, 7:38 PM

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contained his name as well. This little tri had many outstanding features but I found the aluminum crossbeams and water stays an untrustworthy system and sold it. I wrote an article on it that's kicking around the net somewhere.

**Richard Evans**

February 28, 2021

I have a 92 Argonaut (26)

It is in dry storage in Rockport, TX in fair condition... it is fitted out with a electric powered (6hp) and includes

Hi tech German torqueedo motor.

I am considering selling, It needs a younger captain. This is the one you might have seen all over the internet. Let me know if interested.

Richard Evans

210-379-10956

# Small Trimarans Sailing in Russian Waters

September 14, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Alexander Yudanov, Russian trimarans, small trimarans, trailerable trimarans

## Comments

### Stefano

September 17, 2012

Many thanks to the Russian sailor and builders.. please post at least some sketches for gold fish and Bestia... give moe detail about the latest one . I looks very much what I always thought of ...very innovative approach to tri construction , also the one on trailer with aft cabin

### Nail

September 19, 2012

I'll try to persuade Alexander to publish his design sketches. May be for you will find useful this article about home-built trimaran "Rak" (crayfish)with some plans by other Russian multihull enthusiast - Vladimir Alexeev.

<http://katera.ru/files/magazines/208/154-158.pdf>

<http://kassi.nm.ru/html/rak.htm>

### ian

September 21, 2012

Regarding the diagrams at the first link: is the lateral resistance a daggerboard, or a pivoting centerboard? The first diagram labels it a "crash box", which I've only ever heard used to describe antique hand-shifted transmissions on things like motorcycles and forklifts, that tend to crash when you take your hand off the steering to shift.

In other words, "crash box" doesn't really have a positive connotation in colloquial American English...I don't see any pivot detail on the drawings that would ID a fixed centerboard and no detail in the other drawings about the trunk construction or operation, so I'm left wondering if the use of "crash box" here describes a pivoting system designed to mitigate damage in a crash (grounding)-perhaps a non-fixed pivoting board- or is "crash box" a grimly humorous acknowledgement of the catastrophic things that can happen to standard daggerboard trunks when the board hits a fixed object, or even some floating ones...?

Personal experience with both daggerboards and the Russian sense of humor make me think it's the latter, but I don't want to assume anything :)

### Small Tri Guy

September 21, 2012

Thanks for pointing this out Ian. For those who've never heard of the term before -a "crash box" is something built into a hull that will absorb most of the impact if a centerboard or leeboard doesn't swing up ... if it hits bottom, or something else in the water. If this happens then things can (and do) break.

### Nail

September 21, 2012

Ian, "crash box" is on the diagram of Rak inspiration - Dick Newick's design, Tremolino. Rak has pivoting centerboard with rotation axis placed outside the hull.

"Crash box", more exactly "crash blocks" are sacrificial foam blocks placed in daggerboard well. You can see it in more details here:

<http://www.geocities.com/tremsetters/images/crshblk.jpg>

### ian

September 21, 2012

Hi Nail,

Thanks for the explanation, that makes perfect sense and now that you mention it I do recall reading something about Newick developing this setup many, many years ago.

I've also seen older dinghys with similar hybrid daggerboard/centerboard setups that had no actual pivot pin, that use either friction from tightly fitting side plates or tension from bungee cords along with cam-like locking bumps in the board edges to hold the board in the trunk in regular use but allowed it to pivot back in a grounding... this is one variation of the idea-

<http://www.gaboats.com/tutorials/nopincenterboard.html>

### ian

September 22, 2012

Regarding this bit from the link above, saying that this type of board "...needs to be weighted. Therefore quite a bit of force is needed to raise the board so some kind of tackle is required."

On smaller boats this weight and complexity penalty can be largely overcome by using a bungee cord or similar material to hold a floating or neutrally buoyant board in the deployed position, and it will operate in the same manner as far as returning to its original position once any obstruction is cleared. Applied to the board and trunk in the diagram, the bungee would be pulling towards the stern, locking the board into the notch in the trunk.

You could go one step further by using the bungee to hold it in its full down position and then add a small tackle forward if you want to fine tune the CLR using various board positions between full up and full down...then it works the same way as a heavy sinking board that can be adjusted incrementally.

In mono dinghys this type of adjustment may or may not make a huge difference in performance and handling and in many cases is pointless for all but top level competition sailing, but it's something to note for anyone considering a crab claw or similar low aspect rig on a tri-

“Though the rig is well-balanced on traditional proas while on windward courses or reaching, as the wind becomes more abaft the beam and the sheet is eased, the sail creates powerful weather helm, so that a steering paddle or rudder is required to maintain course.”

[http://proafile.com/archive/article/rig\\_options\\_crab\\_claw](http://proafile.com/archive/article/rig_options_crab_claw)

Moving the CLR aft is the obvious solution to relieving excess weather helm, and a high aspect ratio board pivoting towards its stowed position does just that...pull it up completely and it shifts even more radically and you usually get a lee helm situation, which is to be avoided.

Too much weather helm can slow things down and will ultimately overload your rudder and steering and break something, but a boat's inherent weather helm is also a major component in how well it will tack and even if the rig and helm balance is OK in a straight line, a CLR that is permanently set too far aft usually makes for boats that are pigs when coming about and kind of mush their way through turns, which pretty much describes a lot of early multihull designs that did away with keels and boards completely or just had tiny inadequate tabs and fins in places where they'd actually hinder turns.

Even tris with well balanced rigs and hulls can be challenging to tack smoothly due to lack of inertia, so this is an area that requires a lot more thought when conjuring up trimaran designs than it does with ballasted boats.

So- an adjustable CLR is a very good thing to have in a trimaran and a pivoting board can be thought of in a similar manner to a swing wing on an aircraft- it allows for high performance when you need it but allows you to reconfigure for certain maneuvering and trim situations where the high performance configuration is inferior.

This design gives you the CLR adjustment and crash survivability of a centerboard without the submerged pivot and seals and bearings that can leak and corrode and break, with not too much more complexity than a daggerboard and the same ease of removal/repair. It can be built very light, and if you do it as assemblies that hang off of the crossbeams of a tri outside the main hull on either side, the assembly can be made even lighter (and so can the now trunk-less hull) and allows for asymmetrical foil forms, orientations and adjustments as well.

#### **Stefano**

September 24, 2012

Thanks to Nail for the two more links... Google translator does a wonderful and exhilarating job. I wish I could have the interpreter I once had when working in central Siberia in Kemerovo... Smiling and brilliant young lady :-)

# Beautifully Restored Somersault 26 Trimaran Sails Again

September 20, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Dick Newick, Farrier trimaran, Somersault 26 trimaran

## Comments

**ian**

September 22, 2012

That is one gorgeous boat, both in original design and the way it has been restored and outfitted...and the blazing sports car yellow is perfect.

Well done indeed, I know that is a ton of work and the love shows.

I'm especially taken by the outboard mount, which is a really elegant design solution with tons of benefits depending on how easily it pivots, which I assume it does to some degree...does anyone know if its a Newick designed piece or was it something one-off?

That type of pivot-around-a-tube connection in many ways mimics traditional lashings used by the original multihull designer/builders, just updated- and for the garage builder can be had on a smaller scale using run of the mill hose and tubing clamps and plastic bushing material available even at Home Depot or a corner hardware store.

For heavier duty and marine grade bits and pieces, military and industrial surplus stores often have these types of parts made from the finest materials and engineered for far more demanding applications than a small boat, for a fraction of what they would cost at retail if you could even find them.

Also look to places that deal with temporary trusses used for stage lighting and large temporary structures and similar applications that use pipe framing, and there's a world of cool parts that are perfect for this type of thing, including many clamps and connectors designed for quick release, that would be perfect for quick small tri assembly, attaching things like ladders, motors or other accessories to an existing tube, etc.-

<http://www.rosebrand.com/subcategory213/rigging-stage-hardware-cheeseboroughs-clamps.aspx>

<http://www.doughty-engineering.co.uk/shop/22/>

To me, those pages look like a "just add tubing and hulls" Tinkertoy/Erector Set for building little tris and sub assemblies for them that are almost infinitely re-configurable and adaptable.

You have to be sensible as far as engineering and loads when you adapt this kind of thing and always keep safety first, but if you can make it work you can often get a superior part to anything available in a marine store, often at a tiny fraction of what it would cost- if they even had it.

The stage and architectural/industrial stuff is usually over-engineered to begin with and designed for heavy duty so it's a good candidate for repurposing. It's also usually available for interfacing tubing and wire rope stays and in the case of stage hardware, control lines for moving things like light battens, which makes it a natural.

**ian**

September 22, 2012

Here's another link to an entire system of relatively economical structural grade pipe connectors that would be perfect for DIY tri builders, available in both steel and aluminum for connecting standard sized tubes-

<http://www.simplifiedbuilding.com/store/components/kee-lite.html>

# Haines Hunter "Trailer Tramp" Trimaran in Shark Bay

September 20, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Haines Hunter Trailer Tramp Trimaran, Ian Farrier

## Comments

### **Damien Ellis**

September 28, 2012

Hi,

Do you know how I can contact Mike?

I live near Shark Bay and would to buy this Tramp Tri before he leaves if he'll sell her!!!

Im planning on doing a similar trip, but at the moment, have to try and get a Tramp sent all the way over from QLD!! Bloody Expensive..

Cheers

Damo

### **Small Tri Guy**

September 28, 2012

Hi Damien,

There is contact info for Mike on his website, which I've directly linked to in this post.

All the best to you.



# The UltraLight 20 Trimaran from Warren Light Craft

September 20, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: UltraLight 20 trimaran, Warren Light Craft

## Comments

**ian**

September 20, 2012

I really like the direction they are taking here by simply getting rid of the cockpit and the weight involved in framing/reinforcing it all...this makes all kinds of sense for a boat of this type.

Of course it won't appeal to everyone but that's the beauty of these things- they are adaptable to all kinds of applications and approaches.

In the case of a tri of this general size with no central cockpit, there are actually other approaches for crew seating that fall in between the extremes of a car-like driver's seat or a more or less traditional cockpit with lazarette style seating, and nothing but flat tramps inches off the water... a simple foot well can be made without the same need for heavy framing and hull width (or drains) as a traditional full cockpit, and can be combined with tramps, spray skirting and slung seats fitted to pipe framing to create very lightweight yet relatively dry crew seating that gets seat height above the waterline without the weight penalty of using traditional structural materials to get there.

The previous entry with the Russian boats shows a good example -

<http://www.fordak.ru/data/gallery/181/full/1187027636.jpg>

- with that simple space frame there are all kinds of possibilities to attach very lightweight panels and get many of the benefits of a cockpit and coamings and even a rudimentary cabin/shelter...and as you can see, the seating could actually be higher without losing much cockpit width and that could also allow for a very shallow foot well or completely closed deck to be used in the main hull while still allowing for more chair-like seating.

Similarly, this space frame could be used to mount lee/center/dagger -boards and their trunks and hardware totally away from and outside of the hulls, eliminating yet another big hunk of hull framing and a number of seams, and opening up all kinds of adjustment and orientation options like angling the boards to weather for upwind work.

Best of all it would be a relatively simple thing to create such a frame as an modification/upgrade for a boat of this style, or make purpose built frames or additions for certain applications. Ultimately you could have a modular system that could be fine tuned for weather/sea conditions by using different hulls, or for different uses by reconfiguring the cockpit/trampoline panels and rudders/boards for racing, cruising, fishing, diving, etc.

Even if the manufacturer isn't part of the process and sticks to one production model and doesn't care about capitalizing on modifications and accessories, the fact that the boat is built this way will still attract buyers who by nature tend to be willing to experiment and adapt to perfect their tris...even more so for racers and pure speed sailing junkies.

**Small Tri Guy**

September 21, 2012

Great comments Ian. Your insight, which comes from a lot of experience, is very much appreciated.

**Reid K Hester, Ph.D.**

October 6, 2013

This is a very cool looking and apparently quite fast lightweight tri. Has anyone bought one yet?

**Small Tri Guy**

October 6, 2013

Hi Reid,

If you're really interested then Ted or Zac Warren would be able to give you all of the details. It's been awhile since I last spoke to them. They're really good when it comes to responding to email questions.

**Reid K Hester, Ph.D.**

October 6, 2013

Thanks. Zac has already responded to my email.

**Scot Domergue**

June 1, 2016

What has happened with this boat? It's June, 2016. The links don't work (go only to the Warren Light Craft website with their kayaks and sailing kayaks, no sign of the UL20). Would love to have an update! I suspect others would also be interested.

**Max Beraud**

July 5, 2016

Hello,

I met Ted Warren 2 weeks ago and he told me he sold his Kayak business. I own the 3rd Ultra light 20 since 3 yrs and we sailed the boat in Lac-Megantic, Quebec, Canada. The boat is in excellent condition, it sails very smoothly. The performances are incredible especially in low wind. The acceleration is quite amazing too. If someone is interesting in buying, please let me know by mail. The reason why I am selling the boat is to keep my wife happy.

**Small Tri Guy**

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

July 5, 2016

Hi Max,

Thanks for this update. I'll have to try and get up to speed myself on the new direction of "Warren Light Craft".

**Jim Beerstecher**

September 2, 2018

I'm looking at buying one of these rockets! I just want to know if they are repairable with reasonable skills? I read they are carbon fiber, which tells me the basics of epoxy work should apply... am I in the ballpark there? Also, how "fast" is fast with these boats. Say, 8 knots of wind... just me, 200 lbs of blubber... what speeds can I see in fairly flat water?

Thanks!

# Catri 24 Trimaran On the Cutting Edge

September 28, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Ahoy Boats, Catri 24 Trimaran

## Comments

**doug**

December 23, 2014

The hardest boat in the world to get any idea at all by web search what kinda cost the Catri 24 is new or secondhand...

**Small Tri Guy**

December 23, 2014

Hi Doug,

Have you tried contacting Steve Walker at AhoyBoats? He has always responded to my messages within a day or two. The contact page on his website is at

<http://www.ahoy-boats.info/call-me.htm>

## New Sailing Podcasts (Including 2 Interviews with Jim Brown)

October 4, 2012

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

No Comments

# 24-Foot DIY Tandem Trimaran Sailing in Florida

October 10, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: diy 24 foot trimaran, diy trimaran, diy-tris.com

## Comments

**ian**

October 11, 2012

That is a heck of a lot of boat to approach with a "Just bend the ply until it looks like the boat you want!" structural plan, but with some thought and care it certainly can be done and there's nothing at all wrong with that if you accept the risks and have some idea of what to expect and what side to err towards when it comes to structural considerations and material choices.

One thing to keep in mind for anyone considering scaling something up like this is that as the boat and the loads of rigs and amas and such increase, you very quickly lose the benefit of scale where small plywood hulls of this type can be overbuilt without a big weight penalty...

for example, say you build an 8' hull with 1/4" ply and 1x2" stringers and frames- that's a pretty average dinghy/tender and reasonably light for its strength...if you wanted to go lighter and designed/built with care you could easily halve those dimensions, because the originals are overbuilt as far as bare essentials go.

but if you were to double the length of that hull to 16' and doubled the framing and sheathing dimensions, you'd have something incredibly heavy that would be strong but unsuitable as a fast sailboat...obviously that ability to develop strength with lighter relative weight is a huge benefit to plywood and wood and glass, but as you get bigger the engineering gets more and more critical and you find that the forces acting on the various parts and the boat as a whole don't necessarily scale up at the same rate the materials do.

With that in mind I would suggest that maybe higher aspect ratio sails may be far more trouble than they are worth, considering the potential changes to the boats static and dynamic structural loads they could create. The ketch rig makes a lot of sense here because a tall sloop rig of the same area would present some serious loads that could overwhelm the rest of the structure or the ama righting moment...otherwise conventional spilt rigs are always something of a compromise that sacrifices performance for safety and ease of sail handling, which is why as a racing rig they are only really favored on offshore racers that tend to do most of their work off the wind or as rule beaters in handicap racing (many racing yawls were really just sloops with a tiny mizzen added to take advantage of rating rules).

The mizzen luffing and general weirdness between sails when you aren't reaching is one of the drawbacks of a more or less traditional ketch or yawl rig even on a slow displacement cruiser, and combined with the significant changes that occur to apparent wind as multihulls get up to speed- and the fact that you've got half your sail area in the mizzen- the inherent limitations of conventional soft sails on booms are the bricks in the wall preventing maximum performance.

Most attempts to get better performance with split rigged cruising boats involve doing away with conventional booms and using a wishbone or loose footed sail(s), which allows for better air flow between the sails and better performance to weather, and also allows for far flatter construction/trimming of sails- which is a huge benefit when your boat speed has you essentially going to weather all the time.

Also the loose footed rigs allow for the sails to overlap and actually work as one unit and generate more power and lift via the "slot" effect...this is one of the odder looking ideas for creating a better performing split rig that by all accounts works pretty well-

<http://www.runningtideyachts.com/sail/>

**Stefano**

October 11, 2012

WOW!!! Great great job Frank ! I love the boat, read your site and it could not fall in a better moment since I am about to build a trimaran of 22 ft, larger in volume, but with a split rig.

I partially agree with Ian and would have gone with a heftier 6 mm planking and an internal longitudinal backbone, but that is just an opinion, and I do not cover in glass my ply... Here are the questions:

- 1) what is the fabric weight over the foam bottom? Does it have any tendency to crush? any backbone needed to the styrofoam core after trial?
- 2) can you expand on the boom-mast fittings ? They look pretty neat
- 3) what does " a mean 18 inches beam" mean ? I understand wl beam and sheer beam, but not the latter 18 inch stuff.
- 4) Any idea of the prismatic coefficient of this boat?
- 5) what about the akas.. are they simple tubing or coaxial two tubes? And the hull-aka fastening system ? Can you expand ( even with simple pics)
- 6) what is the rise of keel at bow and at transom? In other words, how much rocker ?

Thanks so much for sharing your experience, Stefano

PS I will send on e-mail something that I think is a very useful smart and efficient solution for higher aspect sail with low masts

**john farrell**

October 12, 2012

Again very neat, I like the conjunction use of foam and ply and glass to create a lite but stiff hull.

You didn't utilize your clever folding ama's, what's your reasoning, given the EC need to pass through limited space/height, are they simply telescoping?

Enjoy following your builds.

John Farrell

**ian**

October 12, 2012

I think the foam/glass/plywood bottom section could be fairly easily engineered to provide a great deal of longitudinal/torsional strength for minimal weight gain, and that's the kind of out of the box thinking that can allow simple plywood forms like this to be scaled to their limits while dodging many of the weight penalties involved in scaling up traditional hull framing to get the same shapes.

If the foam and plywood false bottom was glassed to the proper thickness to become one unit and integrated into the plywood hull sides effectively, the foam could become largely irrelevant as a structural consideration and would mostly just serve as a plug for the bottom contours...but the positive flotation and ease of repair aspect is a nice dividend as well.

One thing I really like about this design is that it avoids a big issue with larger open cockpit ply or similarly lightly sheathed hulls with traditional framing, which is that as the distances get bigger so do loads from things like people stepping or falling off of gunwales to the cockpit floor...having one continuous plywood web on that plane that isn't also holding water out eliminates having to build a floor that can handle the structural loads of using the hull skin to stand on or to jump into without tearing the skin off the frames.

It's also a great solution for mounting bulkheads and mast steps and the like, and offers a large expanse of area underneath where blocking, stringers and other structural elements could also reside without cluttering things up in the cockpit.

**Frank**

October 13, 2012

Hi guys – sorry for the slow replies. For whatever reason, I'm not getting notified of anything that happens here on Joe's site – no emails for new articles, your posts...sure hope Joe can fix that.

Ian – To put your mind at ease, the boat is quite robust. I always build "by eye" but I hate failures due to breakage as much as anybody. Without becoming long-winded, let me just say that everything about the boat has exceeded my expectations. As you note, swapping out the sails for higher aspect ones probably won't help much. Just two days ago we managed an astonishing (to me) 9 mph close hauled – about 45 degrees off the wind. And you know what? I think that's plenty! We zipped past a close-hauled monohull like he was at anchor. Whoever says tris don't point and cat-ketch rigs don't go upwind is welcome to come along next time we go out. We also managed 12 mph on a reach in 12 mph of wind. The only problem is it just doesn't "feel" fast when you're used to 16 foot boats. But I can live with it :)

Stefano – The blue foam was initially covered with 4 oz glass, and then the whole hull was covered with 6 oz glass. Additionally, the floor (6mm ply) was covered in the cockpit areas with 6 oz glass. It all seems very sturdy. The 5 bulkheads in combination with the foam "enclosed semi-circle" make a hull that is virtually torque proof. And the total of 170 sq ft of sail is really pretty conservative for a 24' boat.

Re the homemade goosenecks, once again my cheapness trumps all other considerations. I'll try to take some close-ups. They are really just pieces of PVC pipe and some aluminum straps and other bits assembled so that they are free to spin 360 degrees around the round masts. Haven't managed to break one yet, despite being out there in WAY too much wind a couple of times. Maybe I should do an article on how truly cheap people solve boatbuilding problems :)

As with all my boats, this is an experimental design. I don't expect it to be around three years from now, so I sure don't overbuild. I think the bottom is tough enough for the places we launch and beach (mostly sand) but probably wouldn't stand up to gravel or big stones – let alone concrete launch ramps.

Improvements over previous boats include: the aforementioned bulkheads, greater "bury" on the unstayed masts, bigger and deeper leeboards, fins added to the amas, and the fact that the floor of the boat sits about 2" above water level. If I drilled some holes, it would be self-bailing. In fact, the drain plug in the transom fell out and got lost, so we sailed without it. Of course, with so much freeboard, we don't take on much spray.

I really wish all you folks could see the boat up close. I'm pretty sure you'd see why I do what I do, and I'm even more sure I could learn a bunch of useful things from hearing your feedback.

Cheers – Frank

**Frank**

October 13, 2012

Oops – I see I left a few questions unanswered.

– Not sure what your 3rd question is, Stefano. Can you tell me where you saw that?

– I'm thinking the prismatic coefficient will be quite large, as the bilge curves are small radius (just 4") and the hull is dead vertical for the first few inches below the waterline amidships.

– Rocker is about 7" overall, in a nearly smooth curve from bow to transom. The foam alone provides about 1300 lbs of buoyancy, so both bow and transom and about 2" out of the water when underway.

– The akas don't telescope, but are simply made from a 12' piece of 3" aluminum tubing with pieces of 2 1/2" tubing pop riveted into the ends for an overall beam of 18'. I'll try to get detail shots of the attachment.

2/15/23, 7:38 PM

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Gotta go for now – Frank

# Restored Piver Nugget In Santa Cruz

October 14, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Piver Nugget Trimaran

No Comments



## Rent, or “Rent Out” a Small Trimaran?

October 15, 2012

Categories: Small Tri Info - All

Tags: rent trimaran, small trimaran rental

No Comments

# New Strike 18 Trimaran Sailing in Texas

October 15, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Richard Woods, Strike 18 trimaran

## Comments

**ian**

October 17, 2012

Very well done Neal, especially for a first build.

This design is really growing on me...it's not that elegant in the classic pretty sailboat sense (ditto the Prindle cat) but the functional nature of it all gives it the kind of functional more industrially oriented beauty of things like motorsailers and smartly designed powerboats like trawlers and tugs.

I happen to love that kind of thing and hope that neither the owner or the designer take this the wrong way- it's just a very unconventional design that takes some getting used to if you tend to favor sleek and swoopy lines and boats that hide their quick built DIY nature at all costs.

The cabin has a very retro look that reminds me a lot of 50's-60's runabouts and the whole DIY vibe of that era, when kit and DIY boats were a huge business and everyone seemed to have something going together in their garage. Again, I say this with nothing but respect and admiration.

It's also very similar to the design of the smaller Cross boats with trunk cabins, which is another plus...it's just a good basic design solution that can take a beating. The proportions here make it look more like a pilothouse than the Cross boats, but I think that's very cool...

I \*really\* like the cuddy/pilothouse setup after seeing the interior shots in the video, and can imagine using this basic design as a starting point to build a very nice pocket motorsailer that could have the covered cockpit/interior space and amenities expanded even further but would still be easily driven both under sail and/or power.

With purpose built planing amas and maybe an added strake or two on the main hull and some real power this design could become a bona fide power launch, sail capable or not...

It might not be the best choice for SoCal or Florida daysailing but in places with cold/sketchy weather a boat like that could make for a fairly comfortable and economical ride that allowed for some degree of extended travel, and has potential as well for fishing (both private and commercial), diving, salvage, light duty towing, water taxi and similar operations where trimaran stability and speed/fuel economy under power can be naturally advantageous.

Speaking of power- I had never seen a propane outboard before of that configuration...I'm going to go google it but would appreciate hearing any comments the owner has on actual use.

**Neal**

October 18, 2012

Hi Ian,

Thanks for all your comments and observations! None were taken the wrong way. I appreciate the feedback. Personally I picked the design for it's functional nature but also really like the looks as well...I guess I'm a bit biased at this point though! For one it reminds me of the new Littoral Naval ships being built as well as an F15 Eagle from the front. I've always liked fighter jets so the shape was appealing.

For some reason I've always thought multihulls looked great on the water...besides tall ships they have always been my favorite, especially the large 90 ft ocean going Tris.

As for adding a cabin, the designer (Richard Woods) has already drawn one. It attaches similar to what you describe, I haven't built it yet though. I'm not sure about using the boat under power only though as it was designed very light for sailing, the recommended engine is no more than 2.5-3hp. btw- I do plan to fish and dive off it eventually as well, just for sport though.

The Propane motor is the new Lehr 2.5 they also have a 5hp as well and plan on making a large 175 soon. I've run it less than 10hrs so far but really like it. It performs just as well as any gas motor but without the heavy fumes, need for gas, ethanol issues and winterizing as regular outboards have. It weighs 38lbs and can go one hour at full throttle on a 1lb canister of propane (I've confirmed that). I paid about a \$200 premium for the technology but find it's worth it. There is a way to refuel the 1lb canisters from a 5lb tank that makes the cost about \$1/bottle.

**ian**

October 18, 2012

Hi Neal,

Thanks for the reply...I too have always liked the less organic looking forms of things like those littoral ships and fighter planes and high performance powerboats and tugs that are purpose built, with classic looks being far down the list of priorities.

If you look at the path of advances in powerboat design from atlantic paddle steamers to foilers and three point hydros and other planing hulls, you see that for decades after power was available designs were still stuck in shapes optimized for sail power, and square sail power at that. The classic fantail/plumb bow motor yachts are gorgeous and have their advantages, but they are hardly the epitome of what is possible.

Personally I think tri design is in an equal place today, in large part due to old traditionalist sailor baggage against multihulls \*and\* powerboats, which tris can often match in speed \*without\* the smell and noise.

Once that's gone, "ugly" is really all you have left to use against them, and that's always subjective and totally irrelevant to actual performance. When you are talking potential speeds in the range of powerboats, it makes perfect sense to consider \*all\* the available design solutions and not just the ones that look like what belongs on a sailboat or don't offend purists too much.

On further review I did see that there are a number of cabin options, and the whole convertible aspect of it is a huge boon to anyone who might want to create a specialized boat- not just easier to modify and design for, but it keeps the resale value up by being easily re-converted back to a more stock design. It's kind of in the same vein as a camper shell on a pickup truck, and many of the same types of options could be implemented on this type of boat. It's just smart design and that utilitarian aspect is what really has me looking closer and imagining all kinds of possibilities.

The specs on the propane motors are pretty amazing, and these would seem to be perfect candidates for a displacement power cruiser or motorsailer based on this design, maybe with some prop tweaking and clever positioning...the test speeds and especially the fuel economy at cruise they got on their 12' Sears aluminum skiff are almost unheard of (over 24 mpg at close to 5 kts), and could only get better with a well matched, more easily driven hull form, and I imagine with purpose built amas and a couple of minor tweaks you could easily apply far more power than what is spec'd to an 18' boat without any danger at all- two 5 hp models would allow some pretty high top speeds and still give you range and cruise speeds comparable to a 30-40' traditional trawler, if those figures are to be believed, and ten HP is do-able on far smaller and less stable boats than this.

Anyway, hats off to you and the designer and hopefully others will pick up on this idea of more convertible designs that allow more possibilities than having \*just\* a daysailer or \*just\* a cruiser or \*just\* a fishing boat, or worse, try to do them all at once.

From a commercial standpoint, I think that working towards more adaptable designs is the only thing that will ever rebuild what's left of the pleasure boating industry as we know it and that a strong aftermarket in options could be built around designs like this one the same way that a huge aftermarket exists for Jeep and pickup accessories that can convert them for a very divergent range of uses.

Oddly enough, both Jeeps and pickups are wildly popular all over the world but are also top contenders for "least sexy/pretty" of what's out there...Boston Whaler and Zodiac have done well with the adaptable boat concept and are all over the place, but when it comes to sailboats the idea hasn't gotten much traction at all and specialization and one-offs seem to be the rule.

#### **Wade Tarzia**

October 19, 2012

I only wish there were some way to avoid some of those triangles, aesthetically speaking. I guess though that would add a lot of additional hours and even weight.

#### **Neal**

October 19, 2012

You could add styrofoam blocks to the forward facing triangles and form them into a more rounded shape. After glassing they should hold up and wouldn't add much weight at all, nor effect performance.

#### **ian**

October 19, 2012

My concern there is more practical- having that section more horizontal and like an extension of the deck plane there would be far better when you are moving quickly and can use all the solid, flat places to put your feet as you can get.

This is also an issue in many radically reverse sheered boats and boats with bubble-ish cabins...powerboats that don't normally require a lot of deck work can get away with more of this stuff and even some very nice boats don't give a lot of consideration to getting around...

This boat is \*very\* aesthetically pleasing and the polar opposite as far as fair lines, but still presents a very tricky foredeck to get to and work on in a wet seaway-

<http://smalltrimarans.com/blog/wp-content/uploads/2009/01/somersault26-d.jpg>

Of course the idea there is that you never have to leave the cockpit...OK, sure...

Not a deal breaker for me, but I'd personally want to address crew movement in that area better...tramps will help but some kind of solid place to land when you come over that cabin in a hurry to fend something off or grab a sail about to go overboard would be nice.

I can't seem to find a good example pic, but I've seen junks and sampans that do this, where the deck is so highly crowned in all directions that it becomes an elevated turtle backed cabin top of sorts and impossible to walk over easily to get forward, so the lack of deck space is addressed with external decks made of planks on stubby frames that cantilever out from the hull at the sheer line...on a tri you could easily integrate this with the existing crossarms and I'm surprised you don't see more of this being done to get more interior space and still have a place to walk without needing a completely solid deck or bouncy tramps...

This is the best example I could find- a very crude version using lashed bamboo for the catwalk, but it should explain the concept and how it allows moving around otherwise impossibly wide/tall cabin structures -

<http://i40.servimg.com/u/f40/17/30/72/03/cimg2811.jpg>

#### **Marc Upchurch**

January 4, 2013

Neal,

The build looks great, but I most like your enthusiasm.

I seem to be relatively close to you. I am in Ft. Worth.

Would it be possible to see your boat some time? I have daydreamed about a tri for 20 years.

Marc  
817-263-4039

**Dale**  
June 15, 2013

You mentioned that you are able to store the tri in a standards garage. Do you have take off the amas to get it through the door?

**Small Tri Guy**  
June 15, 2013

Hi Dale,

The Strike is designed to be a true folding trimaran. The amas are always attached to the beams, which themselves fold over the center hull.

**Dale**  
June 15, 2013

Thanks for the reply. I was wondering about the height of the amas once they are folded on top. In the photos I have seen they seem a lot taller than the tow vehicle. Do you know what the height would be?

**Small Tri Guy**  
June 15, 2013

Dale, I am not sure exactly what the height would be, but a safe guess would be about half the beam length of a 16-foot Nacra beach cat. Richard Woods can answer all of your Strike 18 questions directly at <http://www.sailingcatamarans.com>

**Neal**  
June 20, 2013

Dale,

I can get it in a standard two car garage unfolded, then fold it up once in...it was one of the requirements for me before beginning. It takes about 15 min to get out and back in and some handy reverse work as the garage is on an incline. So the procedure is to unfold it, back it in, take it off trailer, then fold it back up and move it over (push/pull on a small dolly) to one side to make room for the van.

The ama height when folded is just taller than a standard garage door entry so it won't work folded up, it needs to be unfolded. but once inside the door you can fold them up...it's still real close to the door top once inside though...within an inch.

I should add the entire garage is three car but the boat can fit into just the two car area...the mast on the other hand is stored on the ceiling and requires almost the whole length. I keep the stays attached the whole time.

It would be easier to store elsewhere but would cost more.

Hope that helps,

N  
**Rory k.**

September 12, 2013

Neal did a great job! I have purchased plans for the Strike 18. I wanted to see if I could contact Neal directly to talk about the design, tips and his thoughts on building it if he had to do it again. Thanks Rory

**Neal**  
October 17, 2013

Rory,

Thank you, and congrats on starting on the Strike, I think you'll enjoy it as we have. The best place to discuss the design, etc is on Richards blog:

<http://www.sailingcatamarans.com>

myself and other more qualified folks frequent the blog and discuss the builds and sailing, it's a great resource.

**randy marsh**  
August 7, 2014

Neil... Great job on the build. I have purchased plans and I have two NACRA 5.2 hulls. I hope to get started this winter. I live 10 minutes from Lake Ray Roberts marina. I have sailed this lake many many times in my Schock Santana 21. If you are ever up this way again I would love to see the boat. And dare I ask... go for a sail? Thanks for sharing the photos. I am looking for a sail rig. I wonder if a Hobie 16 rig would be big enough. About 155 SF compared to a NACRA rig that is about 200. Again thanks for sharing.

**hans boortman**  
November 3, 2015

I really like the Strike 18, purchased plans and started construction a month ago, the boat is simple to build and moves along, my plans are to finish end of november and sailing mid december or so, like Neal I have a Prindle 16 as donor boat, for any other builders of the Strike using Prindle, are the crossbeams long enough and any other complications using Prindle parts?

# J-24 Sailboat Converted to a Trimaran

October 19, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Hobie 20, J-24 sailboat, monohull to trimaran, trimaran conversion

## Comments

**ian**

October 21, 2012

Can this please be the final nail in the coffin for the idea that all successful trimaran main hulls \*must\* be long and skinny for the boat to perform and/or track?

Nobody seems to be manhandling the controls and the boat is obviously moving quite nicely in not a ton of wind...and the J 24 hull is 24' LOA with a whopping 8.9 feet of beam. That's tubby even by mono standards, but fast because it's light and has very minimal draft (low wetted surface) and very flat aft sections like a motorboat so it can surf/plane even as a monohull hauling an extra 950 lbs or so of ballast and 3-5 crew.

This thing doesn't even have purpose designed amas and in the middle video you can see it accelerating and beginning to surf/plane and there's hardly any whitecaps and no big swell, just wind waves...I guarantee you that boat is faster there than my Cross 24 would have been, and that boat was no slouch for its size and designed from scratch by a true master and design innovator.

Throw off those "long and skinny is best" shackles and full displacement thinking and there's a world of monohulls out there that would make excellent tri main hulls, that are already exceedingly fast in their own right whether on plane or not...and were designed by a true master and design innovator as well-

<http://www.flying15.org.uk/flying15/about.asp>

<http://www.sail-world.com/USA/index.cfm?SEID=0&Nid=40824&SRCID=0&ntid=0&tickeruid=0&tickerCID=0>

"It is anticipated the hull and deck will weigh around 1000 lbs. "

a 33 foot FRP over foam boat that sans rig weighs barely more than what a stock J-24 carries as dead ballast weight, with an even more "correct" length to beam ratio than the J boat ( it's still narrower than the J)...all in a boat that planes already as a ballasted monohull- food for thought.

speaking of Uffa Fox and tri hulls- this one looks like a tri already, just missing its amas...and could use the same sized donor amas as the J 24-

<http://1001boats.blogspot.com/2012/06/fairey-atlanta.html>

**Stefano**

October 21, 2012

Ian wrote: Can this please be the final nail in the coffin for the idea that all successful trimaran main hulls \*must\* be long and skinny for the boat to perform and/or track?

Well, probably yes...although from some other sites it may appear that this idea risks to be buried alive (check on w17 site for example). Other previous nails may well be magnum 21 trimaran (I personally measured a 1:6.3 bwl/lwl ratio, and perhaps what Farrier writes of his own tris: from TT 720 through F 27 to recent F 22: flatter run and wider (and a higher sail/dspl ratio).

My own experience tells me that with little power (kayaks, lesser canvassed proa or tris) having a sleek long hull ( 1:10 ratio) with some angle to get on a plane on a small wave set may be beneficial, but it really needs to be narrow and long.

A fatter hull needs more power. So if you do not intend to deal with tall masts and plenty canvas ( like more or much more than 30 sqm per metric tonne) , you'd probably be better off with a sleek hull with a flat run aft perhaps.

I'm drawing my own tri a 22 ft. It is a design that needs to strike a balance between ease of construction, ease of conduction and performances, including carrying 450 kgs payload ( 1000 lbs on 22 ft). It will have some dihedral forward, to help get some lift to get on a plane, it will have a 1:9 bwl/lwl ratio roughly, not too much rocker – about 1 ft over 22 – and it will have a flat and wider aft run, carrying the mid ship section all the way back.

It will carry 26 sqm of sail upwind, over 2000 lbs ( 0,9 metric tonnes fully loaded) roughly a 30: 1 sail/dspl ratio, but then it will have a gennaker and a 52: 1 ratio downwind or on a broad reach in lighter winds. In brief, I'm trying to get inspired by semi planing one step hulls of the beginning of XXth century with ( I hope) a target cruising speed capable of reaching the low teens with the mentioned modest power in a beaufort 3-4 (Mediterranean summer breeze). The amas will hopefully be two dart 18 hulls (we need to get them from the seller yet) thus capable of a more powerful rig should need be.

ANYONE THERE WITH A SPEED PREDICTION PROGRAMME WILLING TO CHECK ON THE ABOVE MENTIONED FIGURES ? I'd love to receive some feedback before cutting the plywood.

Bye to all, Stefano

**ian**

October 22, 2012

Hi Stefano-

The hull you describe sounds very much like the type of boat I'm talking about with the beam carried far aft...assuming that it has very little hull draft and the runs are kept very flat it should be very easily driven even at fairly wide dimensions whether it is truly on plane or not.

I totally agree with you about kayaks and canoes being optimized for low power but I think the length/beam ratio is maybe getting more credit than it deserves as far as why these boats can make good small tri center hulls- they also are built very light as a rule and that makes for good tri building in general, and maybe even more importantly they are both hulls designed to remain upright in use, rather than working best when heeled over like many long, skinny sailboat designs of the past.

That's a huge part of what might or might not make a good monohull conversion and a lot of skinny mono hull width is about self righting from knockdowns and seahandling when heeled as much as it is about speed potential.

Now of course when you say "canoe" most people in the US think of Indians paddling on rivers...but even with double ended canoe designs Uffa Fox managed to get them to plane very early on and knew exactly what he was doing-

"...Flying Fish has the longest length and smallest beam permissible under the rules, and as can be seen from the lines, these dimensions produce a very easy and sweet-lined canoe. But when we look at the lines of these light and very fast sailing hulls we must always bear in mind that they plane two-thirds of the way around a triangular course, and even close reaching will get up and scoot along the top of the water, and for this reason their lines must be studied from a different viewpoint than that taken when studying an ordinary sailing craft.

The sections are V'd forward, and are gradually flattened as they go aft where they are almost flat. The buttock lines also carry this out for they come down steeply forward, and then run aft almost parallel with the keel line, this giving the long flat run, necessary for planing."

[http://www.intcanoe.org/iclife/hist/uffa\\_flying\\_fish.html](http://www.intcanoe.org/iclife/hist/uffa_flying_fish.html)

note that the hull draft on this boat is 5 inches...there's hardly any boat there at all, and that's sitting still.

here's more-

"Canoes sailing to windward or in light weather are travelling at a speed equal to the square root of their waterline length, or slower with the chine aft out of water. At such a low speed, the minimum wetted surface is important, so she has a round bilge for three quarters of her length.

Off the wind in a fresh breeze, or a wind of greater force, she travels at up to four times the square root of her waterline; then it is that the chine aft tells its tale, for where the water clings to a round, it cuts clean away from a sharp corner. The chine also extends the planing bottom outwards and gives greater planing power."

[http://www.intcanoe.org/iclife/hist/uffa\\_sailing\\_boats.html](http://www.intcanoe.org/iclife/hist/uffa_sailing_boats.html)

I don't know that the above qualifies as a speed predicting program, but if Uffa Fox says you can do 4X theoretical hull speed in semi planing mode, then I'd be inclined to believe him...regardless you seem to be on the same path that he was and modern materials and a tri platform shouldn't do anything but help.

**ian**

October 22, 2012

here's a neat video of some international canoes in action-

<http://www.youtube.com/watch?v=Exb6i3E3r-4>

very speedy in pretty light air and the hiking plank makes it exactly like a tri if the amas fell off and the guy is trying to get back to the dock before it capsizes...why not just put some amas back on and relax?

Most interesting to me is the planing ability despite the relatively narrow double ended designs, which is a function of the boats having a very different bow and stern sections that look like a maxi ocean racer bow grafted onto a wide pin tailed surfboard with very hard rails (a chine). The difference between the super fine exits of traditional paddle canoes and kayaks and this flatter wider exit is the difference between hitting hull speed easily with man sized power input and then hitting a wall no matter how much more power you apply, or exceeding theoretical hull speed easily and regularly even with relatively small amounts of sail area.

In the video, also note the almost complete absence of rooster tails or any visible stern wave or wake, and very little bouncing compared to similar sized racing skiffs going really fast...there's obviously a lot more going on here than meets the eye when it comes to what will/won't plane or go fast, and how to do it...these boats obviously use the power they harness very efficiently and would seem to be an ideal candidate for grafting some appropriate small beach cat hulls onto for a smoking performance tri conversion...

I can see this-

<http://www.sailnut.com/international-10-meter-canoe>

with one of these as ama donor-

<http://nswptca.papertigeratamaran.org/gallery.html>

-making a very exciting under 250 lb 17 ft performance tri that would be a million times easier and more comfortable to sail than the canoe (or the cat) alone and would still be ultra fast for its size, for not a ton of money compared to anything else that would give you that kind of performance potential.

It could satisfy the go fast planing hull types as well as the people who like the traditional pointy boats with fine exits.

You could also build from scratch in ply-

[http://www.internationalcanoe.yachting.org.au/?Page=24752&MenuID=How\\_to%2F13919%2F0%2F%2CBuild\\_an\\_IC%2F13920%2F0%2F](http://www.internationalcanoe.yachting.org.au/?Page=24752&MenuID=How_to%2F13919%2F0%2F%2CBuild_an_IC%2F13920%2F0%2F)

**Stefano**

October 22, 2012

I wish to thank Ian for his fast and informed ( as always) comment. After posting my comment, I did some research on semi-planing hulls and yes, the graphs show that the figures range in between 3 and 4 times the square root of lwl expressed in ft.

(A small digression here: I am amazed at how many graphs and formulas do not express the measurement units nor the axis meanings. I would not have got past junior high school if I did such a thing, which explains much of our scientists success when they migrate to find better jobs).

So... square root of a 22 footer lwl is 4,69 and the predicted speed thus would fall in between 14 and 18.8 knots.

Personally, I will take anything close to 10 knots in 3-4 beaufort as a big success, especially if the hulls will not pound too much ( other reason for putting a V section forward) since I ignore in figures what a " flat run aft" is ( mine will be 10-12 inches rocker), the dihedral angle that would be best for "lift" ( I will ask the sail maker to draw a gennaker with some lift power though) and what "reduced wetted surface" would mean. In fact, with my old PC programme " plyboats 2" I am trying to get the best figure of wetted surface/displacement at a maximum heel of 8 degrees.

I also ignore what the step should be like, but I'll check this stuff on a closeby museum that has many planes and hydroplanes hulls with steps on show.

I also read that steps in the hull create an intended turbulence mixing water and air so to reduce friction drag from hull/water ( high) to hull/water+air ( lower).

I'll strive to make the whole tri at least pleasing to the eye since thing I really loved in Uffa Fox boats is their looks, especially Atalanta. So again Ian, thanks for sharing :-)

I hope here my Italian eye trained to beauty will help in the effort.

Yours friendly, Stefano

**Stefano**

October 22, 2012

For Ian again...

Reading and quoting Uffa Fox from the same article on flying 15 lines:

(...) So while I think these lines we are now looking at are very fast indeed, I do not think they are fast round a course, and the moral of all this is that designers must put into the hands of helmsmen instruments, which, while being fast, are well within their capabilities, so that plenty of spare energy, both mental and physical, is kept in reserve, for the planning of their race and the sailing of it, enabling them to conduct operations in a seamarlike manner rather than in a state of feverish excitement throughout " (Uffa Fox)

I wish I knew this man !! The bottom line of good handling and "manners" at sea are totally within my design goals and priorities, and stand higher than maximum speed overall.

Again thanks for sharing... Stefano

**ian**

October 22, 2012

Stephano-

I truly envy your being able to go visit a museum full of Italian seaplanes, which are without a doubt some of the most beautiful machines of any kind ever created...and in the case of this one, still the fastest propeller driven seaplane in the world since 1933-

[http://upload.wikimedia.org/wikipedia/commons/thumb/c/cf/Macchi\\_M.C.72.jpg/800px-Macchi\\_M.C.72.jpg](http://upload.wikimedia.org/wikipedia/commons/thumb/c/cf/Macchi_M.C.72.jpg/800px-Macchi_M.C.72.jpg)

<http://img577.imageshack.us/img577/4917/italianafmuseum132.jpg>

I think you are correct about the air induction aspect of stepped hulls being a major reason for using them on fast planing powerboats...on a float plane float that's some of it, but not so much for speed potential as for helping to quickly break free from the water surface entirely, the same way steps on three point hydroplanes do.

But on a float plane float some of the step design there and especially the aft sections with the extreme fine exit and very upwardly angled straight rocker aft of the step are all about nose high trim attitudes on takeoff and especially landings...a really flared nose high landing means that the aft section of the float becomes the entry point and a wide flat planing hull shape here could potentially trip the entire machine and slap it down on the water hard enough to destroy it...when you look at it this way you see that the aft section of a float is really more like a bow pointing backwards.

So there's some stuff that is directly applicable, and other stuff that isn't unless your ama is regularly breaking free of the water and re-entering it (like in big seas), which it very well might and a plane float style ama and step might make perfect sense.

Another thing to consider is that step placement fore/aft can affect overall pitch trim when underway because the air/water mix behind it is less buoyant. On a powerboat with a step and wide transom, this has the benefit of causing the stern to sink slightly into this foamy mixture and assume a better trim for planing when underway, but still have a full depth transom. On a float plane it means that as you apply power the step makes the plane assume a more nose high trim needed to take off and the grip of the water on the float lessens.

When angled other than 90° to the hull, steps can also induce a turning moment...some deep vees do this on outer chines, to help fatter boats turn better as they roll onto that section of hull that is designed to always turn.

On a heavily canvassed tri I can see this kind of asymmetrical step being used on an ama to counteract negative helm tendencies as the hull is pressed harder and engages the step, which might allow larger less balanced rigs without strenuous helm input to control them going to weather...but what really intrigues me is the idea of using a directional step on the main hull to not just affect that hull but to also direct and modify the flow of its wake so as to optimize the flow that the ama works in/on...

a step in the main hull will bring the stern wave more forward, which puts the amas in a position to surf naturally on that wave if they are shaped and positioned

properly...it's not that you are making more power, just re-harnessing some of what was used to make that wave in the first place.

This "ama surfing the main hull wake" idea has been used on some of the big power tris like Earthrace/Ady Gil that have the amas very far aft and tucked into the main hull wake...if you look at this pic-

<http://www.barking-moonbat.com/images/uploads/earthrace2.jpg>

you can see a bit of this positioning- imagine wanting to catch that stern wave on a surfboard and you would want to be paddling hard right about where that ama is sitting, which is that magic point where the wave takes over and you are riding it.

at speed it's even more dramatic-

[http://www.sail-world.com/photos/Alt\\_Earthrace%20finishes.jpg](http://www.sail-world.com/photos/Alt_Earthrace%20finishes.jpg)

the amas are just buried in that stern wave, again very similar to the attitude a surfboard takes right before it uses that stored energy of being sunk to pop forward and plane right along as long as there's a wave.

hard to do that with a sailing boat that needs the width for stability and more ama buoyancy forward...but a step in the main hull might bring that wave forward enough to get some of that effect on a more traditional sailing tri hull layout.

#### **Small Tri Guy**

November 29, 2012

The Tricote trimaran is another beautiful "monohull to trimaran" conversion - <http://www.tricote.fr/construction.php>

#### **Delane Rivenbark**

December 30, 2014

Hello,

I'm the designer and builder of the Tri conversion. Going on a short vacation soon, but after I return I can submit a summary of the project from the beginning to it's current design. I built a hump under the main Vaka, lower the Amas and repositioned the rudder to the right side and was ready to launch and then a Typhoon flipped it off the trailer, breaking the mast, destroying one of the Amas and a couple of holes in the deck and a bit of damage at the new plumb bob bow. I've done nothing since the disaster but want to bring her back to life. Was so close to trying out the newly modified hull design that by my estimation would have increased performance by at least 20 to 25% depending on point of sail. I'll be back with more.

Delane

#### **Stefano**

December 30, 2014

Please do ! it will be our opening new year bonus!

Looking forward to the insights...

best luck for this project, Stefano

#### **Delane Rivenbark**

January 16, 2015

Stefano,

Most of the project details are on a forum called Boatdesign.net under the multihull section. Search for Hobie/J-24 Tri Conversion Project. The first step was to cut off the keel and then glass up the stub that was left. The beams go through and are supported by 4 fiberglass boxes. The mast was converted to a tabernacle so that I could de-mast during Typhoons. She sails great to windward with the boards down or up. The center fixed dagger board was fabricated using a 6mm steel plate, spiderboard foam aircraft wing - NACA 2210 if memory is correct. It is very solid. Can go into detail on that more if you like. She tacks on a dime. Very neutral on the helm. You can't let go of the helm more than 3 seconds. Check out the site, and I'll post some updated photos of the last hull mod to the center Vaka. The day I recorded the video segments we saw 10.2 on the GPS and a few times I'm sure we hit 12 coming off of a wave set. I'm in the process of re-building after the disaster 2 years ago and can't wait to see if the hull mod proves worth the effort. I did use additional flying wires attached to the front beams. Let me know if you have further questions. Also where can I upload some photos?

Delane

#### **Small Tri Guy**

January 16, 2015

Hi Delane,

Great to hear from you! Thanks for sharing some specific details about your conversion of this boat to a tri.

You won't be able to upload any photos here, but you can post URL links that link directly to each photo you want to share. In other words, just "direct link" to each photo so when someone clicks on the link the photo will open up in their web browser.

#### **Michael**

April 24, 2020

Delane Rivenbark

Is it possible to chat with you online to discuss that J24 Tri 24 you made.

[michael.trothe@gmail.com](mailto:michael.trothe@gmail.com)



# Nicky Cruz Explorer Trimaran Mast Raising

October 30, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Graeme Delaveau, Nicky Cruz Explorer trimaran

No Comments

# Fishing on a Weta Trimaran

November 5, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Weta trimaran

No Comments

# CAD Programs Suitable for Trimaran Hulls

November 14, 2012

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: boat design software, CAD for boat design, design trimaran, hull design software

## Comments

### Stefano

November 25, 2012

Just one question: do you have any idea of which of these programs can be tested in demo version and run under Mac Os 10.4 ?

Thanks , Stefano

### Fred Goldfarb

November 30, 2012

Another interesting program, suitable for ship design as well as smaller craft is DELFTship – <http://www.delftship.net/>

I've looked at a few programs, need to check them on my other computer if anyone is interested. Also, a program called BRL Cad was used by the US government and is now available gratis. Not the latest perhaps but it's a professional program usable on a windows platform.

### Small Tri Guy

November 30, 2012

Hi Fred,

Great info ... thanks for adding to this discussion about CAD programs that can potentially be used to design multihulls.

### Fred Goldfarb

November 30, 2012

Hi Joe,

You're welcome. I think anyone wanting to design a multihull of any kind can use a few free CAD programs specific to hull design along with some other free CAD and maybe engineering programs to do the structural/strength numbers. Since for a tri the vessel can often be thought of as three hulls joined by beams, it's not that hard as much as time consuming. For a wing deck tri, larger than the usual small tris on your website, it's not that different, just a thicker beam section to allow for a double bunk for example. I think the fun part might come in when deciding on the material or materials to build the various parts of the vessel. For anyone learning design, doing the same boat in two or three different materials can be a real education, especially if they plan on designing more than one boat. –Fred

### Small Tri Guy

November 30, 2012

Fred, I just posted one of those monohull to multihull conversions that we've talked about in the past at <http://smalltrimarans.com/blog/?p=8989>

I wonder if these CAD programs could somehow also assist with that type of thing too?

### Fred Goldfarb

November 30, 2012

If the lines for the main hull/monohull to be converted are available it might help, or if certain key points on the lines were known in order to know where the connection points and such would need to be for the crossarms. Measurements on the actual hull would also do, but might be harder to get accurately. If the crossarms were such that they went across the boat, say ahead or over the cabin (if one), and just aft of the companionway (again, if there is one), then the only concern would be structural concerns where the akas (crossbeams) meet the hull/deck join (to design to avoid hard spots which might get overstressed) and where the akas are attached to the deck or hull via bolts, fiberglassing (probably not as good as bolts here), etc. I would not want to cut holes in the hull or cabin sides to pass akas through, though it could be done provided the cuts are sistered sufficiently to take the stresses. In any case I don't see why the design programs couldn't be used for a conversion design and analysis. Except for the things I noted, and maybe the rig needing beefing up a little (keeping in mind you don't want to overstress the rig or the hull might deform), it should be quicker than designing an entirely new main hull, akas, and akas.

Initial sketches might use photos scanned and scaled so aka/amas might be drawn in right in some CAD programs, if the photos were converted to the appropriate drawing format.

### Small Tri Guy

November 30, 2012

Great explanation of how the CAD programs might be used in such a case Fred ... thanks again. There are some good photos of the interior of the Tricote trimaran (referenced in my previous comment) that show how the interior sections of the main hull were beefed up in order to accept the crossbeams. I can't imagine attempting such a thing without an engineer signing off and giving me approval though :-)

### ian

November 30, 2012

Hi all...

Stefano- Unfortunately I can't tell you how any of these programs work with the Mac OS, but I \*can\* say that like most free/shareware they all seem to have a few little quirks and glitches in their operation that can be annoying or can render some strange results if you aren't aware of them, so you should always check and double check the figures they generate before moving beyond the conceptual stage...same goes for even the best professional programs of this type.

As for Joe's question, there are certainly benefits to having your plan all laid out in one of these programs as you can make dimensional changes to one part or parameter and any related points and dimensions will be updated instantly...that alone is a huge benefit over paper plans and a scale ruler.

And while I wouldn't go cutting a chunk of some expensive material based \*only\* on what the computer told me the length should be, if that figure is close enough to not be obviously wrong, then it is likely going to be at least as accurate as what could be determined using that scale ruler...if nothing else you could do a very accurate materials list based on these drawings and scale up/down as needed with all the figures updating automatically.

That said, one thing that becomes apparent quickly is that there is little in the way of tri specific consideration going into any of these programs, and in some ways you almost need to "trick" them into thinking that they are still working on a monohull.

This works fine for basic lines plans but when it comes to the displacement and waterline and center of buoyancy/lateral resistance and similar hydrostatic calculations, I have yet to figure out how to make any of these programs treat the design as a single connected whole, and not three separate boats that all happen to be close together, that all have individual hydrostatics that are never affected by the other hulls.

This also points out a major disconnect in general thinking about hydrostatics and how boats "should" be shaped...this is a really good overview of some common measurements that are used to predict performance-

<http://www.seleneannapolis.com/tech-tips/18-hydrostatic-data-.html>

- note that things like prismatic, block and waterplane coefficients take an imaginary spatial figure and then compare the real dimensions to them and express the result as a ratio...in a general sense it's not a bad predictor of what to expect from any set of dimensions but the basis for most all of the allegedly "good" numbers to get is what works for \*\*monohulls\*\* that have to function independently as a single hull that develops whatever buoyancy, righting moment, directional stability etc. it has without the help of any other hulls.

Even trying to adapt these concepts to tris is problematic...take hull speed- if you have a 20' tri with 15' amas, is the waterline length you use to do the math 20' because that's the total boat length, or 50' of combined waterline, or 35' with one ama flying, or an average of the three hulls at 16.666666' ....?

Even if you use the longest length of 50', you only get a prediction of 10 kts, which is about half of what a well designed tri that size could potentially do in optimum conditions, even in full displacement mode...it's a "rule" that really doesn't work that well for non-monohulls, and other common measures have the same types of problems, as they all assume a single hull functioning as such.

So - you could definitely get some good basic data that could help immensely as far as ama placement and knowing where your proposed ama's centers of buoyancy and lateral area are without tank testing a model...but getting accurate data on the combination of those amas and a donor main hull might be difficult, and even if you got good figures they might not mean much.

#### **Fred Goldfarb**

November 30, 2012

From what I can find, nothing that's free or shareware will do what's needed to design and calculate design, buoyancy, etc. properly if at all. There are a few rather costly programs that might do it. For example, Maxsurf can model multihulls of any complexity and its associated stability program Hydromax can do complete large angle stability analysis (plus much more) with free trim, according to someone on <http://www.boatdesign.net/forums/archive/t-2267.html> .

Flexible aka/ama/vaka (main hull) connections probably need another complex analysis program to determine proper strength's and such.

It would be interesting to have a discussion with some well known multihull designers as to the process they use designing not just the look of a boat but the technical parameters as discussed above by Ian.

Some people like Jim Brown were not formally trained engineers or designers, while others like Ed Horstman are trained aeronautical engineers or marine engineers/naval architects. In all those cases the boats designed have had considerable success in real world use, which begs the question of how they got it "right" without multihull specific design/analysis programs.

When I worked in naval architecture we worked on boards, used slide rules, and had people doing weights and moments calculations, along with departments like naval architecture/design, plus "scientific" and "piping" to work on the related design issues, so it was a matter of manpower/brainpower instead of a high powered desktop workstation computer we have now. Things still got done, generally quite well, but the vessels were monohulls. Seat of the pants design/engineering works but does usually take much longer and is more expensive than computer design and modeling of a vessel.

Does anyone know of such discussions with well know highly experienced multihull designers on how they go about/went about designing their boats?

#### **Small Tri Guy**

November 30, 2012

Hi Fred,

I don't know of any at this moment. But perhaps others can add something to this conversation...

#### **Fred Goldfarb**

November 30, 2012

Someone asked about boat design software for Macs. Just found this which might help:

[http://www.mcgowanmarinedesign.com/TouchCAD\\_Review.html](http://www.mcgowanmarinedesign.com/TouchCAD_Review.html)

Apparently it's cross platform for Windows and Macs.

#### **Fred Goldfarb**

November 30, 2012

Touchcad website:

<http://www.touchcad.com/>

**ian**

November 30, 2012

I actually got a chance to talk tris with Norm Cross a couple of times and his approach was very thought out and conservative and didn't try to be different just for difference's sake, which oddly enough led to his boats being both similar to contemporaries like Piver in appearance, and radically different in having fairly traditional keels that he eventually designed for Piver's customers who wanted them. His later boats got very sleek and curvy but there was a logical progression.

But as I mentioned in another thread, compare his early hard chine designs with something like a Lightning dinghy and other than the b/l ratios they are very, very close.

One other bit of insight that I got directly from the source wasn't specifically about tris, but about going fast...I was lucky enough as a young boat geek to meet Bill Lee and got to pick his brain, and he stressed over and over that shapes and ratios and all that weren't nearly as important as weight and what inertia does with it in a seaway...his goal was to build smart and light as much as possible not just to get better power to weight ratios but in a quest to do it so that as it got lighter you could use less power to get the same speed, which means smaller rig, which can mean smaller scantlings and lighter weights to some practical limit...

but his point was that not only can you reach a performance goal via something besides applying more and more power with ever larger rigs and sails, but that the \*only\* way to get better performance after a point was to eliminate weight or else you break things due to inertial stress loads on the parts, simple as that.

His background was in aeronautical engineering and so he applied a lot of those concepts in the design stages and managed to create incredibly fast boats that were very simply rigged and used pretty low aspect ratio sailplans that carried less weight aloft and were very easy to handle without needing dozens of guys grinding winches..

Not sure how much useful data you might glean from this link, but it's worth checking out if only for the great stories told by/about a very funny guy-

<http://fastisfun.com/wizwisdom/wizwisdom.html>

actually, here's something -

"Although much of the competitive sailing world fretted over complying with the ever-shifting International Offshore Rule (IOR), Lee simply focused on making Merlin fast enough to break not just Windward Passage's existing monohull TransPac record of 9 days, 9 hours, but also the multihull record of 8 days, 13 hours set by France's Eric Tabarly in 1969. He relied on the numbers his engineering background provided him, but he also drew on his and other's intuition to get the boat just right. "I'd go over after work," says insurance agent and TransPac veteran Harvey Kilpatrick, "and Bill had the keel on a dolly under the boat, moving it back and forth to where it looked right." By February 23, 1977, Merlin was ready to hit the water....

Jim Antrim, yacht designer: "...With her low freeboard and narrow hull, Merlin has always represented the minimal life support system needed for a spinnaker..."

<http://fastisfun.com/wizwisdom/magicbus.html>

**Fred Goldfarb**

December 1, 2012

I also met Norm Cross once and had a nice talk with him. It was on a 32 ft "area rule" or "coke bottle" bottom hull. He had an aeronautical background, did wind tunnel testing of fuselages, wing sections, and used his knowledge on his designs. Ed Horstman, an aeronautical engineer, made his main hulls smooth from stem to stern, and has daggerboards in the amas. His boats sail just fine, but I don't know if there are any boat for boat comparisons between relatively similar (in size or displacement at least) regarding speed. I know several Cross tris have flipped, but only one TriStar (Horstman) tri, and then in a hurricane as I recall. Norm Cross felt his area rule hull/keel combo allowed a much smoother flow under and around the hull. Complexity of building such a hull however I think was too difficult for most people, so not many were built from what I surmised. - As for Bill Lee, I had bought a lightweight engine for my 31'Searunner from Doug Brown in the LA area. He had known and may have sailed with Lee in his younger days. He had an Olson 30 kept at the Cal Y.C. at Marina Del Rey. On biz trip to California I'd often stay over a weekend with friends, and sometimes we sailed with Doug for a day. We actually did through the water speeds of 10 -13 kts upwind, without a chute of course, and he'd look for tiny waves downwind to try and surf on. I began calling such boats "monomarans" for their high speeds. Interiors however are rather sparse, since you can only get such higher speeds with the light weight lan notes. As Dick Newick says: Of high speed, low cost, and large accommodations, you can only pick two. This is true no matter how many hulls you're looking at. One think multihulls might be easier to deal with are the use of hydrofoils, although I have worked on a hydrofoil patrol boat while in my younger days. Monohull, 100 long tons on 80 loa, unclassified speeds were 28 kts displacement mode, and 70 kts "flying". It was built like an airplane and was very weight and space critical. - Obviously the difference between a racing multihull, cruising one, and a "racer/cruiser" would be one of weight versus accommodation. - as far as keel placement by Bill Lee, he's a master of his craft, and I don't know that average sailors would have such luck as placing a keel where it seemed "right". When transat/Ostar sailor Jean LaCombe was building Yang, his 25' 'glass monohull (I knew him as first my sailing instructor and later as a friend), he made a model. We tested it by Pelham Bay Park by towing it with a fishing pole & line. He had placed the keel by a combination of design numbers and some adjustment while testing. However the model had no mast, so no actual model data on lead (center of sail effort relative to center of underwater lateral resistance). He did ultimately sail the boat across the Atlantic both W to E and back, so it worked, though I don't know how well. (Also, as seemed typical, he sailed to England with a new girlfriend, but returned without her.)

**ian**

December 2, 2012

The reverse sheer/flush deck Horstman "look" is something like women's low rise jeans...sexy as hell if you are working with the right proportions, but if not it can look like twenty pounds of potatoes in a ten pound sack.

What's odd is that the better looking ones aren't just longer and sleeker, there's short stubby ones that just look right and bigger ones that haven't scaled up well at all, at least to my eye...but they are hard to beat for interior space and sail well, lots of windage from the tall hulls that affected light air performance and docking in wind was the most common complaint I recall from people who owned them.

That said I spent a \*very\* long day many years ago dealing with the aftermath of sailing a 43 XRC over an uncharted reef at a decent clip and blowing out one of those daggerboard trunks...it was a friend's cruising boat so of course the amas were loaded up with gear that all had to come out first..lightweight stuff that they could handle, but not so much when that case of toilet paper is wet. It was fortunately in protected waters and nobody was in any real danger and the hull held up remarkably well and

of course they just beached it to do the repairs, but that pretty much did it for me and traditional daggerboards/ trunks on anything bigger than dinghys...just too much potential for disaster when there's other options available.

**Fred Goldfarb**

December 2, 2012

I've always found multihulls, trimarans especially, to be much harder to make really beautiful, unlike say traditional boats like my favorite, a schooner, usually gaff. Not as efficient as a modern rig on a modern mono or multihull, it's nonetheless one I find especially lovely in general. I think catamarans can be made nicer looking easier than a tri. That being said, I've noticed that Horstman TriStar tris can look very nice, though as Ian says the builder must be careful of the proportion, doing the reverse sheer (or "whaleback") deck without too much drop in the bow at the deck. Years back I did a comparison of the TriStar 27-9 against a Searunner 31, and the 27-9 came out ahead on most things, though the Searunner had somewhat better long term storage capability. Having owned several Searunners I'm intimately familiar with their strengths and weaknesses.

I've also been on a few TriStars. One owner built 27-9 on Staten Island sailed under main alone while we waited for the owners son to arrive, and came about under main alone at low speed in knee deep water (knee height for the son, who was not a 6'er but a young teen maybe 5'6" tall). Daggerboards were up too. With 6 people aboard we went out towards the Verrazano Narrows Bridge, close hauled, barely heeling. A 34' monohull chased us astern but couldn't catch us, though using a larger genny (150%) while we had a 135% jib up. Off the wind it was no contest. It was a very impressive sail considering everything.

People have had a lot of negatives on the TriStars, seemingly without a lot of evidence to back them up. Both TriStars and Searunners have enviable safety records. both have plenty of room for cruising couples or families, depending on the boat size of course. Windage appears larger on the TriStars, but again, the wind sees things differently than we do, and a good breeze can make either design more of a handle to dock, shoot a mooring, etc. My wife and I sailed our Searunner 31 without a working motor for a few years, including sailing off and on our mooring all the time, and up the narrow channel by Hempstead Harbor (LI Sound, on Long Island) on a beam reach, falling off to a run to the gas dock we were leaving the boat for haul out for the winter. We were supposed to get a tow but it didn't happen. The wind was lots stronger than we felt comfortable for such a reach/downwind approach to the dock. Luckily the land blocked some wind and we managed to stop the boat a few inches before hitting a boat docked ahead. I've no doubt we could have done it on a TriStar just as well.

I think that XRC, designed as more of a racer/cruiser than a "pure" cruiser, probably had too much stowed in the amas from what Ian says. I'm not a huge fan of daggerboards, mainly for the reason Ian noted. But there are designs (including Horstman as I recall), that has the daggerboards (or non-kick up rudders) built so that a hit on the lower part will break off. On a similar note, I used to race on a MacGregor 36 cat from City Island, one that had a single daggerboard in the port hull. One day the skipper (not the best by the way) forgot about some rocks near the start of the weekly racing and hit it at speed (at least 10kts or more). The port hull first flew, then came down, then WHAM!, the daggerboard hit the submerged rock and sheared off just under the hull. The daggerboard case and hull area around the daggerboard trunk were luckily unharmed, but could have easily sustained serious damage as the boat Ian was on did. Also, a friend owns a foam core 'glass Newick wing Val 31' ex-racing tri, originally named "Peggy" and sailed in an Ostar (transAtlantic singlehanded race). Now named "Raptor" (and up for sail if anyone's interested), we've done well over 16 kts over the ground upwind in it (GPS verified) with three aboard. The boat as a large single daggerboard just ahead of the mast. So far there's been no damage to the board or trunk. It's not a cruiser, obviously designed for specialized long distance racing (and successful at that), but for a singlehander or a couple it could be a really fast, fun trimaran. I prefer centerboards like my Searunners had, which could pop up without damage if it hit something, but it's not as efficient as daggerboards. I'm not so worried about daggerboards and their trunks as others might be, as a centerboard can get stuck, hit something, and also result in considerable damage, though probably less likely than a dagger board.

Getting back to the aesthetics of a design, I've seen smaller and larger TriStars (up to 48', whose owner had spent 15 years building his boat and was living aboard), along with up to 40' Searunners, and while the Searunners are to me a slight bit better aesthetically than the TriStars, a good and well thought out paint job makes any TriStar as good looking as any other multihull I've ever seen.

One more point: I've never seen a Cross tri with a fin keel actually outsail a Searunner or a TriStar, let alone a Crowther Buccaneer, so I'm not sure the Cross keel is truly better than a good centerboard or a daggerboard.

# Jim Brown Article on Sam Bradfield's Hydrofoil Trimaran

November 17, 2012

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: hydrofoil trimaran, Jim Brown, Sam Bradfield

## Comments

**Stefano**

November 17, 2012

This article is very interesting but reminds me of my 1200 pages chemistry exam in University: tons of words and formulas could not replace a little practical experience in the lab, which unfortunately was not scheduled.

In other words, a few photos here would have truly spoken more than a 1000 words, as in an old advert slogan, but thanks for the imaginific ride :-)

It brought me at least back to my University years and with incredible speed!

**ian**

November 17, 2012

About this-

"The early sections were like airplane wings, cambered on top and relatively flat on the bottom (plano/convex). When running at speed, this section generates lift upwards to hold the craft aloft. For very high speed aircraft, and now for hydrofoils, "symmetrical" sections - cambered both top and bottom - (convex/convex) are used by Bradfield and others."

- I've tried to study up on it and sadly I hit a wall pretty quick when trying to truly understand fluid dynamics...the math just makes my eyes glaze over...but it's always been my understanding that the physics involved in generating lift in a traditional airfoil depend in large part on the compressibility of the gases flowing past it as air, and that water more or less doesn't compress...it's hard to grasp as a layperson because the theoretical stuff tends to consider theoretical "fluids" that may be gaseous or liquid and often have little relationship to anything tangible.

There's other factors at play with both air- and hydro- foils like angle of attack and what is sometimes referred to as a "barn door" effect, meaning that with enough air moving over it, even a barn door can get airborne and the airfoil shape isn't all that matters, or even important at all in some cases.

My admittedly poor understanding is that it is those latter effects that allow hydrofoils and high speed aircraft wings to operate sans a traditional asymmetrical airfoil, and that it's the specialized demands of the operating environment of both types of craft actually make the traditional shape a poor, or in the case of aircraft, possibly a dangerous choice.

I've also wondered for years how this all plays into what I and many others consider the less than successful application of airfoil shapes to cat and tri amas in an attempt to create "lift" that would counteract leeway when going to weather, ala the original Hobie cats...I can see where a well designed asymmetrical ama might be beneficial or at least better than a symmetrical one if you have no keel or boards, but isn't the whole idea of a traditional airfoil shape creating a pressure differential between its two sides kind of doomed to failure underwater, whether it is a horizontally oriented plane, or vertically oriented like the airfoil shaped waterlines of a beach cat, that might be oriented either way?

**ian**

November 18, 2012

In doing further research, I just happened to run into an interesting page that touches on something Stefano was talking about the other day: stepped hulls and how air injected into the water stream of a hull can improve performance...

it seems that "air lubrication" of large hulls is an emerging technology that attacks the problem from the other direction- rather than lifting the entire boat out of the water into the air to reduce wetted surface, just inject air under the hull so that those portions of the hull aren't wetted any more-

<http://www.mme.wsu.edu/~matveev/concept1.htm>

towards the end of the article they discuss using a foil to improve and adjust the pocket of entrapped air-

"We have recently discovered that a small hydrofoil under the cavity can significantly increase the cavity length at given speed. This leads to significant reduction of wetted hull surface, and therefore, to further reduction of hydrodynamic drag. Also, this opens a way to effective control of air cavities, including operations in adverse conditions (unfavorable loading, low speed, waves, etc.). Additionally, a hydrofoil produces lift, which may support a significant fraction of hull weight on fast ships."

It's another interesting possibility for tri applications whether power or sail driven, as the stable nature of the platform would help to maintain the entrapped air...

I also found this regarding some early designs by none other than AG Bell, which dovetails nicely with Jim Brown's ideas for large motorsailer foilers-

"Meanwhile, in September 1912, Bell had an alluring vision of hydrofoil sailboats. Baldwin, the experienced sailor, pointed out that the swiftest sailing craft fell far short of the speed required to lift its hull above water by hydrofoils. Bell merely suggested that aerodynamic lift be added through horizontal sails, and he went on to dream of large passenger vessels skating smokeless across the Atlantic on the wings of the wind. So in the summer Of 1913, Casey dutifully worked with Bell on test models."

[http://www.lesliefield.com/other\\_history/alexander\\_graham\\_bell\\_and\\_the\\_hydrofoils.htm](http://www.lesliefield.com/other_history/alexander_graham_bell_and_the_hydrofoils.htm)

Great minds think alike...also it seems to me that Bell was onto something with the "horizontal sail" concept that has proven to be very capable of high speed in the form of windsurfer rigs that naturally cant to weather, that also make enough lift to hold riders airborne for short bursts if they trim/time things right. I'm convinced that wing sails (solid or soft) that can tilt from near vertical to horizontal could be integrated with motor assistance and foils or some other planing surface to create vessels that if they went fast enough could have some of the same characteristics as wing in ground effect vehicles.

#### **Dave Carlson**

November 21, 2012

For Ian: I personally struggled with plano-convex foils together with David Keiper (of Williwaw fame), as he insisted that a Clark-Y foil was essential on his Surface-Piercing foil sets attached to our Hobie 18 catamaran in 1999. However this shape cavitated every 7 seconds at speed in my sailing trials, and results continued to be just awful, thus the lifting foils were ground into a more symmetrical shape. Bradfield later utilized symmetrical NACA0012 T-foils, and most other builders have also. It seems obvious to me that such a design allows downforce to be applied via the weather foil at speed rather than depowering the sailrig if the system is overpowered, as in "Osprey". How one may build this into dramatically better performance upwind is critical, as sailing fast to weather is of course of prime interest to many racing sailors. Note that the A-class cats are presently utilizing curved foils together with bendy masts for superior performance downwind- but speed to weather is, as yet, a wash.

#### **ian**

November 21, 2012

Dave- Thanks for the comments...after further research I think I'm slightly more informed and as I understand it now the plano convex shape \*will\* create a pressure differential underwater, it's just that as you point out the lower pressure component is manifested as cavitation which is not at all desirable and can be quite destructive-

Catastrophic Cracking Courtesy of Quiescent Cavitation

[http://www.youtube.com/watch?v=KzMWndzG\\_Yc](http://www.youtube.com/watch?v=KzMWndzG_Yc)

Another interesting point I hadn't realized but makes sense is the effect that the ambient fluid pressure has on the entire process, and that the lower the overall pressure is, the more cavitation you will experience...I had always assumed that a foil closer to or on top of the water's surface would be "better" based on the notion that you'd have more drag in something that goes deep, but evidently even a small change in ambient pressure due to more depth can significantly help to prevent cavitation and that's a major benefit of a T- foil over older designs...

at least that's what I get from this-

<http://www.youtube.com/watch?v=DijdU0rmDdc>

-sadly that solution of putting the foils deeper only compounds the very real and probably most negative drawback of lifting foils in general, which is hitting something at speed...proving to me that who/whatever created and/or designed our natural world and the physics that control it had a wicked sense of humor indeed.

#### **Stefano**

November 22, 2012

Just my little five cents on foils, which I understand very little about, and investigated upon even less... An acquaintance of mine, a naval architect, once in the army, was using for monohull foils projects in the early 2000nds the once secret studies outputs of the sixties on submarine foils ( rudder, stabilizers etc). While until very recently it has been ( and still is) common thought in sailboat design that the NACA sections used in low speed air craft as wind gliders could be easily adapted to water foils. He showed me the now public results of those studies and I could see the curves based on experimental evidence showed that the same foils in the denser fluid ( i.e. water) were generating very different curves in lift, turbulence, resistance etc. In other words, the math models to define behaviour of foils worked fairly well and were reliable in air, but in water, the experimental results provided very different and very unpredictable curves, and suggested very different shapes adoption. This architect also suggested that the famous T shaped bulb keel of the Australian america cup winner, had been profoundly inspired by research on submarines.

The cavitation of plano convex foils described by Dave Carlson might well fall in the upon described category of an aircraft wing section meant to produce lift and actually generating different problems in water.

That's my five cents :-). S.



# An 8-Foot Mystery Trimaran (Now Revealed)

November 27, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: 8 foot trimaran, dinghy trimaran, small trimaran, Snark Triumph trimaran

## Comments

**Mike Barnett**

November 27, 2012

Your mystery trimaran is a Snark Triumph. I don't know when manufacture began, but I know they were available from 1968 (\$395.00) thru 1973, when they were discontinued.

Here's a snippet from <http://tomlohre.com/sailing.htm> :

"Once back on dry land in Cincinnati Tom became hell bent on getting a sailboat. FreeCycle, an Internet group, offers things for free. He joined and posted a message wanting a sailboat. Low and behold, a post came back about a neighbor who had a trimaran he wanted to get rid of. Now he has a 9' long, 5' beam, 1971, plastic Triumph trimaran with a lateen sail rig. Once he gets the splits in the plastic hull fiberglassed, the interior Styrofoam dried out, replace the interior wood cross braces, re-screw the top and bottom plastic together, mount a rudder and oar locks he will be sailing/rowing in Cincinnati Harbor on the Ohio River.

I am an old river rat whose first job was on a converted Ohio River towboat into a restaurant with a boss whose parents were slaves. I went on to become a rigger on a river salvage operation. My father introduced the family to houseboats and we navigated up and down the Ohio at least three times. I later helped him sail his Morgan 36' from Miami to Lake Erie. Years later while living for twenty years in NYC I sailed out of East Hampton culminating with helping the captain I sailed with sail his refurbished 1980 Pearson 36' to Baltimore Ireland. Now I must always have a boat but being a portrait painter find monies slim. I was able to get a free 1968 Triumph trimaran by Snark and am now getting it ready to sail on the Ohio River in Cincinnati Harbor. I think I will be able to turn it into a rowboat/sailboat and put a long tail prop on it powered by a 3hp B&S.

I'm watching Jaws 2 looking to see if there is a Snark in it."

And a poor quality pic: <http://tomlohre.com/images/trimaran.jpg>

Interestingly, the boat looks familiar, and I'm wondering if, indeed, I also saw one in Jaws 2!

**Small Tri Guy**

November 27, 2012

Hey, very cool Mike! Many thanks for your input here. I know Fred is gonna appreciate it.

**Mike Barnett**

November 27, 2012

Oddly enough, I want one... it's be a perfect 1st boat for my stepson!!!

**ian**

November 27, 2012

Oh dear...I had not thought about the Snark boats for years. I never knew they made a tri but as kid in the 70's it wasn't uncommon to see the little 11' scow shaped monohulls, or parts of them, laying around...or have someone give you one.

They were sold by catalogs like Sears, and KOOL cigarettes did a big promotion where you got one done up in their corporate colors/logo for turning in X number of proof of purchase coupons.

The monohulls were made from an expanded styrofoam that was identical in structure to the white stuff in packing crates that breaks up into little puffy beads, and the spars and other parts were lawn chair size/quality aluminum tube/plate. They were definitely built as entry level boats and just weren't up to the task of serious use or heavy conditions, but due to their ultra light weight they could actually move out OK until they broke...evidently they got smart and added ABS hull and deck cladding and they are still being made-

<http://www.youtube.com/watch?v=VYtkbwvoG0k>

<http://www.meyersboat.com/#/snark/history>

Sounds like the tri suffers from the same lack of engineering attention and use of oddball materials that plagued them in the early days...the newer boats may be fine but the early ones were kind of analogous to the cheap the Japanese electric guitars sold in the same types of catalogs in the 60's and 70's- mass produced and sometimes barely serviceable copies made by people who were often not really qualified to be making the design decisions they did.

That said they must be doing something right if they are still in production...the "Snark" brand was at one point like "Yugo" is to cars and you have to hand it to anyone who could turn that kind of negative image around.

**Fred F**

November 28, 2012

Yes !!!! I know that I could count on the collective knowledge of the small tri guy minions. Special thanks to Joe and Mike. Surprised to see it designed with a lateen rig, but coming from Snark, it makes perfect sense. The kicker is that my wife and I first sailed together on a borrowed Super Snark many years ago. Some coincidences just seem like fate. Thanks to all for your combined knowledge and input.

I shall update and post when she is done. The mystery is no longer, but the knowledge is sweeter.

Thanks all,  
Fred F

**David Austin**

January 2, 2013

I too would love to buy a Snark Triumph trimaran. If anyone knows of one for sale within 300 miles of Dallas, Texas, please let me know. Thanks

**Cathleen Bruce**

July 5, 2013

We had a Snark Triumph trimaran when I was a kid — my dad bought it in 1973 and for a couple of summers we would go sailing every weekend at Squantz pond in Connecticut. It wasn't as fast as the Sunfish boat that my friend had, but it was a lot of fun — wish we still had it!

**Kevin Lilly**

September 11, 2013

I just bought one for \$600 with a trailer. A little rough but fixable.

**chuck**

May 22, 2014

Hello. We are looking for some help with a Triumph Trimaran that we were given by some friends who no longer sail it.

The transom is rotted away and there is a crack near the RH pontoon and the center by the transom and a hole in the front of the main hull.

We want to take it apart and fix it because a mouse got in through the hole and chewed up a lot of the water logged styrofoam.

We drilled out all the pop rivets but still cannot get it apart. Is there a screw or other fastener in the main sail pocket? we see the metal brace around the hole and we removed the four screws in the bottom. Still will not come apart.

Does anyone know what else we need to do?

Thanks, Chuck & Daniel (age 12)

**Small Tri Guy**

May 22, 2014

Hi Chuck (and Daniel),

Hopefully someone will be able to offer you a solution to your dilemma. I hope you are able to restore the Triumph and sail it again.

**Mike Barnett**

May 22, 2014

Chuck,

If there is any foam remaining inside, it might have been glued to both halves. The mast step area might be glued together as well. If you can provide pictures, maybe we can help a little more!

**chuck**

June 1, 2014

Mike:

Thank you. It is too late for pictures tonight, but maybe tomorrow.

We were able to remove the styrofoam from the pontoons and the rear near where we will need to rebuild the transom, but we still can't seem to separate the top and bottom.

With the foam out, it is able to dry and become un-waterlogged and maybe we can continue working on fixing the hole in the hull and the crack between the hull and RH pontoon.

Thanks for your help and I will try to post a picture tomorrow.

Chuck & Daniel

**Big Kahuna**

July 16, 2014

[http://www.sailboatstogo.com/content/Snark\\_History](http://www.sailboatstogo.com/content/Snark_History) See saga by Jim McMULLEN

Snark Triumph Trimaran:

Bought mine a 9 ft x 5 ft for \$ 400 at a boat show in City Island, NY., in the Spring 1971. Have sailed it on Barnegat Bay and Wreck Pond, NJ., Long Island Sound and Long Lake, NY.

Will send a photo. The deck is glued and pop riveted at 3-4 in c-c's. Cant imagine the fun of taking it apart. It is good shape except for sail and sand(rock sized) gouges on the main float.

Need a short grab rope on the cleat for righting after a roll over.

**Small Tri Guy**

July 16, 2014

Big Kahuna, great web link about the Snark! Would love to see your boat. Glad you've had so much fun with it.

**Ero**

July 28, 2014

I taught myself to sail on a used, an all-white Triumph on Long Island Sound in my teens, circa 1976. I built a mast extension to raise the lateen rig up for more sail and better visibility. In a stiff wind you could get up on one side hull and about half of the center hull, worked pretty well. Truly more of a dinghy than a trimaran but lots of fun for a first boat. It was torn off its chain by a flood tide during a hurricane and never found. A small, rare, and curious boat that I wish I still had!

**mike duggan**

October 10, 2014

I just got a triumph hull for cheap. Big crack in the bottom through both hulls. Did anyone manage to get the deck off the hull?? Also, does anything boatstogo sell fit the tri? I need the sail rig and rudder. They have a 66 square ft. sail but i thought i read it was 85. Can't find that info now. Figures. Thanks for any replies. Mike

**Chuck**

October 14, 2014

Mike and all, no I was never able to get top and bottom apart. We got the Styrofoam out and drilled out all the pop rivets, but there is something near where the mast attaches that kept it from coming apart. I ended up giving it away. The gal that took it said her dad could repair the hull.

The took the sail and the tiller also.

**mike duggan**

October 15, 2014

Hi Chuck, Thanks for the info. I'll try to get my foam out the same way.

**mike duggan**

October 15, 2014

Hi guys, could anyone tell me the length of the mast and square footage of the sail on a triumph. I e-mailed boatstogo but they don't have any info. Thanks for any help u can offer.

**Chris**

July 7, 2015

I have this Triumph. The cockpit has a rather large hole in it. I thought the 2 halves were fibreglass. It was by the side of the road with all the rigging. The sail has seen better days. It's been stated in this forum, that the upper 1/2 is made of plastic...ugh. I've never dealt with plastic before. I've repaired my Sunfish in a few spots, but as you know, that's glass. So, any info. would be emmencly appreciated.

**Mike Barnett**

July 8, 2015

Chris, check into West Systems G/Flex epoxy products. They are formulated for use on ABS, PVC, PE, and polycarbonate plastics as well as fiberglass.

**Paul Schlenz**

September 24, 2015

I had one of these Snark Triumph Trimarans back in the seventies. Great first sailboat. Wish someone still made them. I would love to have one again if anyone knows of one available.

**tony murtha**

August 3, 2016

Big Kahuna

@Mike Duggan; still need mast and sail??

**rose**

September 20, 2016

I have a snark trimaran that my diseased brother left in my barn about 30 years ago. I got a mast made for it and made a holder for the rudder out of a door hinge. Luckily the sail was still serviceable. My biggest problem, as a new sailor ( starting at 70 ) is figuring out the rigging. It leaks and fills with rain water, but it's fine if I get someone to help me dump it.

**Andrew Hemingway**

January 20, 2019

Oh my Lord! It's a Snark!!! This was my first sailboat that I ever owned as a little boy. The adventures I would take on the thing, I must have been out of my mind. My mast step leaked and she was quite flinsky. I remember making a bet with my buddy who owned a single fish that I was faster. Not even close. He ran circles around me. Great times!!!

**Bill Ambrose**

July 6, 2019

I have a tri still being used, a little "wet" but still water worthy, can hold me an my son combined weight of 415lbs original sail and hardware if any interest its in the Binghamton area of Ny still love it but at 55 getting harder to get in an out , Lol currently being used for 4 of July week

**Small Tri Guy**

July 6, 2019

Hi Bill,

Is your tri a Snark?

**Bill Ambrose**

July 6, 2019

Yes a triumph. I have photos of it on the lake, but our cabin has very limited signal. My son and girlfriend were out in it today, got caught in a storm, had to cut it short.

**George Brown**

June 21, 2021

Have one it excellent condition. Been stored inside when not in the water. Used it only a couple years.

**Paul Schlenz**

June 21, 2021

George Brown, are you interested in getting rid of a Snark Triumph Trimaran? Where are you located?

**Bill**

June 22, 2021

Paul I have one in northeast Pa (all original)was planning on refurbishing it but willing to let go at the right price

**Paul Schlenz**

June 22, 2021

Probably not feasible as I'm in Southern California.

**Neale**

July 16, 2021

After 30 years, my dad has brought his Trimaran out of his basement in Ohio and brought it to my house in Michigan to teach my kids to sail in about three hours! The hull is a little dull looking from age, but it's been in a climate controlled environment with no cracks or anything. Hopefully all goes well!

**BA**

July 15, 2022

Had one at age 9-10 yo. Took it out in the Chesapeake Bay by myself!! My parents would be arrested for child neglect now. LOL. I have a photo of me. Wish I still had the boat. I am the baby of 4. They lessened the rules a tad for me. Can't seem to post the pic.

# A Bazooka Trimaran Still Sailing in New Zealand

November 27, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Bazooka Trimaran

## Comments

### Robert

November 27, 2012

This sort of boat – light-weight, beachable (and can be moved from high tide line to the water at low tide), can be paddled, can carry 2 with camping gear, is exactly what I have been looking for. If only it were still in production, and inexpensive. Robert

### Small Tri Guy

November 27, 2012

I hear you Robert! I know a lot of guys (and gals) are going to echo your sentiment.

### James

February 22, 2014

My old man bought one of these new, I think it was built in Queensland. I inherited it a few years ago. It can be tricky to sail upwind, and could really use a jib to help it tack in light winds, paddles well though.

### Brooke Johnston

July 30, 2015

Hi again

We have today just finalized what has been a very long negotiation period regarding the Bazooka Trimaran. The conclusion is we now own the Bazooka brand moulds and everything else regarding the original Bazooka designed and built by the very talented Paul Muller.

The Bazooka is being completely redesigned engineered and built by Ezifold Yachts LTD in New Zealand and will be released as the Bazooka MKII by Ezifold Yachts. All available details are available on our Face Book page. <https://www.facebook.com/pages/Ezifold-Yachts-LTD/212821925457790>

Kind regards

Brooke Johnston

Admin manager

Ezifold Yachts LTD

Christchurch

New Zealand

### Tony

January 29, 2016

Just bought one of these 2nd hand.

First sail yesterday and have to say what a brilliant little boat.

It's not a weta as it does not have anywhere near the same sail area but it moves along very nicely in the light winds we went out in.

This little boat would best suit a family with a couple of children. The platform is well laid out and exceptionally functional.

We will be setting ours up as a swiss army knife sail boat for sailing, snorkling, fishing and generally having a lot of fun over summer. The platform is that versatile it can also take a 2hp motor which we will eventually do as well.

Having no dagger board and with the kick up rudder option beach launching is excellent. Also ours had the boomless sail which for small kids would be the best option for safety (no sore heads).

In winter we will use it to fish and sail. I will add a couple of slight mods such as a small jib sail to help it through tacking a bit and give it some more performance in light winds, in heavier wind I think the main will be sufficient given how well it performed in light air.

Marketing hype aside it does set up and pack up very quickly, logically and easily and we put it on our ute racks for transport. I found it easier to load the empty boat on to the racks and then pack everything into it and roll it over for strapping down. I'm not a very big guy but I can lift the hull easily onto the racks by myself, fully packed we needed some help from others.

As a side note I do not work for the current manufacturer, I am only a 2nd year sailor and have only sailed cats in the past. The Bazooka has blown me away as it fits 95% of the wish list I had for a small boat to suit a multitude of needs and wants as well as our budget.

So before you buy a "H" cat with bench seats and rotomoulded hulls have a good hard look at the Bazooka. Unless you are planning on taking on weta's then the base model will be more than enough fun and has a good range of performance across a range of winds.

Hope this helps and perspective buyers make an informed decision.

### Tony

February 8, 2016

So just a quick update to any interested in this boat.

Last weekend I picked up a small 2.5hp near new mercury 2 stroke ss motor for a song. Simply mounted it on the beam and away we went.

Decided not hoist the sail until clear of the marina as I am not that experienced at tacking yet.

The small motor drove us along at a nice speed against an incoming tide of the estuary and headwind. Would guess around 4 knots but no way to measure, also it was fairly loaded up with around 210kg of people on board and extra for gear.

As an experiment I wanted to hoist and drop the main out at sea, being an unstayed rig with a zipper fit sail it worked a treat. We will be raising and lowering the sail to allow drift fishing with a sea anchor so the experiment proved a success, have to say more so due to having the motor and being able to keep her pointing to wind made things easier. I guess with a sea anchor deployed we would achieve a similar outcome.

Later we tried to sail back into the estuary but ended up locked a few times (mainly due to inexperience and the wind shifting around in all direction at the mouth) and drifting far too close to the breakwater for my liking, again the motor saved the day. Next time I think when approaching the same situation I'll have the motor on idle and ready to push us through the tack quicker until I get used to doing it properly.

Once again this little boat proved it's versatility, seems strange that a lot of small tri enthusiasts seem totally focused on speed alone and not on the enjoyment of a multi use day sailing boat (that also travels along very quickly and nicely under sail). I'm sure that to a lot of people considering taking up sailing (especially mum and dad with kids) that the highly modernised and space aged high speed designs do not fit the bill.

Ropes everywhere for people to get tangled in, sails and beams to deal with, rudders and dagger boards to contend with as well as kids and the wife, gee lets go out for a fun day on the water.

I think that this little boat with it's uncomplicated and simple design, ease of transport, ease of setup, ease of storage and versatility of use, as well as excellent price point, high degree of comfort and good performance could reach a previously missed market segment that would introduce many shore watchers to the fun of sailing whilst including the whole family.

I know from having sailed cats in the past that they are no where near as forgiving or well mannered as this little tri, it gives all on board a sense of security and comfort in such a small package. I would rate it on the comfort scale as highly as the Hobie Getaway with it's twin tramps and outrigger seats. However I would also rate it above the Hobie for all of this in a much smaller and less complicated design package.

I guess in summary we are still in a discovery phase with this little boat, but every outing so far even with breakwater dangers has proven the capability and versatility of this little craft to do everything we have envisioned for it.

Sailing – Simple, easy sail plan with excellent performance.

Motoring – Stable and nimble.

Comfort – 4 on board such a small boat and everyone had enough space.

Handling – Extremely well mannered, predictable performance, can heel a bit on a tac but keeps the ama above water even in heavier wind.

Transporting – Simple. Has been a bit harder for us shorter people to get it onto the Landcruiser roof racks, have fitted a rear roller to the rack and use the downhaul pulley block as a block and tackle to pull the boat up. Works and absolute treat.

Next project for this boat will be fishing shade, may make a shade triangle out of an old jib from a cat, secured to the ama and hoisted up the mast.

Will update as new experiences come to hand.

Hope the above helps anyone looking at getting into sailing with a family.

# Another Look at the Tricote Trimaran

November 30, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Tricote Trimaran

## Comments

**ian**

November 30, 2012

Another example of a very beam-y main hull performing well...I contend that this boat and the J-24 conversion manage this because (besides being very light to start with) they have very shallow draft, where most traditional long/skinny hulls used on tris use a relatively deeper draft/length to get the buoyancy they need to work.

When you look at the underwater cross section and wetted surface of both types, wide/shallow and narrow/deep can be identical. As you get smaller, long/skinny eventually requires so much draft to develop volume that wetted surface skyrockets and you end up with a giant keel. Go the other direction and you get a surfboard.

Tris get away with long/skinny hulls because the traditional stability rules that make them unsuitable for many uses as monohulls simply don't apply...and for boats that are paddled or use small rigs or live in perpetual light air conditions they offer great performance with little power input...but there's other ways to skin a cat and the flatter wide hulls can work just fine too.

What I really like about this one is how well it all works together lines-wise...it doesn't look home made at all and is as traditionally pretty as any other little pocket cruiser of that type, and the extra hulls only complement the graceful sweeping look of it all.

**ian**

November 30, 2012

In case anyone is interested in the stats on the donor boat-

[http://sailboatdata.com/viewrecord.asp?class\\_id=5714](http://sailboatdata.com/viewrecord.asp?class_id=5714)

right at 900 lbs with the ballast removed, and with the keel section gone (and 25% lighter) maybe 1' draft at the deepest point, tapering to nearly nothing at the ends.

Beam/length ratios are important, but so is beam to \*draft\*...and the sectional shapes the ratio creates

if you look at something like a canoe or kayak it might be 18" wide at the WL and draw 6" loaded for a 3:1 ratio, which is great with the right length and if you don't need lots of initial stability.

But a 3:1 ratio based on the main hull beam here would be over two feet deep; instead it's half that. Yes, you are pushing that wide beam dimension through the water, but only a very shallow slice compared to the 3:1 section.

**Small Tri Guy**

November 30, 2012

Hi Ian,

You've probably already seen the "Soling trimaran" here at <http://smalltrimarans.com/blog/?p=2144>

It too is a mono to tri conversion. I link to the website for this boat which still features old video clips of this one sailing. You can check a few out at

<http://members.aon.at/trimaran/engl/eVideosite.htm>

**ian**

November 30, 2012

Hi Joe,

I have seen that boat and it's another good example...they look very long and skinny compared to something like a modern racing skiff/dinghy and have a very narrow transom by comparison to newer concepts, but still the Soling is pretty wide for its type at 6'3" on a 20' waterline and very shallow hull draft...and it is also pretty light with 1/3 of the overall weight being ballast.

Here's another one, this time a Venture 21-

<http://www.boatdesign.net/forums/attachments/multihulls/58648d1310170498-hobie-j24-trimaran-conversion-wisper1.jpg>

<http://www.boatdesign.net/forums/attachments/multihulls/58652d1310170556-hobie-j24-trimaran-conversion-whisper5.jpg>

-those boats did alright in lighter airs but were very tender and\*very\* lightly built and were nothing to write home about as well founded yachts, but I could see one doing well as a trimaran if you did the engineering and fabrication right.

**Small Tri Guy**

November 30, 2012

Great images. I am guessing the sailors who've done these types of conversions have a whole bunch of "on the water" time under their belt. I can't imagine doing such a thing ... at least not without many years of experience, with a proper understanding how sailing hulls interact with the water.

**ian**

November 30, 2012

For a potentially fast open day boat, the Tempest class is a 20'-ish Olympic keelboat that would be ideal as well-

[http://sailboatdata.com/viewrecord.asp?class\\_id=3043](http://sailboatdata.com/viewrecord.asp?class_id=3043)

"Due to the planing hull shape and large sailplan, the Tempest is remarkably fast when sailing on a reach, and speeds in excess of 15 kts are not uncommon in moderate winds"

[http://en.wikipedia.org/wiki/Tempest\\_%28keelboat%29](http://en.wikipedia.org/wiki/Tempest_%28keelboat%29)

-and that's before swapping out the 43% of its total displacement that is dead ballast weight and all the trapeze gear for a couple of amas and connections that won't come close to weighing the 440 lbs. the ballast did.

Combine one of those and something like a NACRA cat and you'd have a very fast and relatively seakindly and predictable boat.

The Flying Fifteen is another similar design, and there's tons of non ballasted dinghys that could be used as well for smaller boats.

One real classic that couldn't help but have been an influence on Norm Cross and his contemporaries doing early ply tri's is the Lightning, which is about as perfect as this type of boat gets-

<http://www.lightningclass.org/marketplace/classifieds/2012/14844.asp>

-that would be a great hull to make into a tri that was a bit more sensible and comfortable than a low freeboard dinghy, but could still be made to perform incredibly well using amas instead of hiking and extra crew to keep it upright.

It's already designed with no keel to remove, and also keep in mind that you might be able to get rid of the CB trunk and its weight as well by using an externally mounted trunk or leeboards...

which might help tune the lateral resistance as a tri too- one thing to keep in mind with any conversion is that the keel and rudder placement relative to the rig and amas is critical to keep things moving straight and safely, so don't count on the dagger/centerboard being perfect as is.

Anyway, lots of boats are out there and plans as well...

**ian**

November 30, 2012

OK, here's a 20' main hull and two 18' amas in fiberglass, with two complete rigs, four sets of sails and three rudders and boards to work with (maybe sacrifice a mast extrusion for wider crossarms?), all for under \$2K-

<http://for-sale.yakaz.com/lightning-sailboat-for-sale#lo=4&docid=0003mcgn0rm02bou>

<http://www.sailingtexas.com/ssolcat18a.html>

- sell off a couple of the sails and other extras and you could probably fund the whole project for the cost of the donor boats. Not bad for an all glass 20' trimaran with a modern rig.

**Small Tri Guy**

November 30, 2012

Hey, these are some great thoughts Ian. Some minds are really going to be rolling with this stuff now.

**ian**

November 30, 2012

Thanks Joe...of course it's easy to just say "put this with this" and the real world is a harsh mistress so my "design" is worth what you paid for it...but in the case of the Sol Cat I have sailed them and know their idiosyncracies and have some place to begin with as far as placing them...the bows are very fine and that would need to be taken into account, and the standard crossarm connections that are very far aft compared to other beach cats might need to have another one up front to keep everything flat/square.

You definitely need to know at least a little bit what to expect and why and most importantly be patient and expect unforeseen issues, but it really doesn't need to be any more technically demanding than building a decent garden shed or customizing a car.

BTW, another piece of the puzzle with the original "Tricote" donor boat that I just learned is that Lanaverre (a builder I'm not familiar with but evidently big in France) manufactured a number of high performance dinghys like 505s, Flying Dutchman and the Tempest keelboat as well, and so was familiar with doing light/strong boats that would be suited to trimaran use...

Lots of older FG boats that look like that one from that era were incredibly overbuilt since they really had no idea what they could get away with and generally built things to last...so lots of them are very heavy for their size and comparable to traditional plank on frame in that sense, but I'm guessing that a pioneering FG racing dinghy builder would have been a bit ahead of the curve as far as building light but strong and probably wouldn't pick a dog of a hull even for their more conservative boats-

[http://sailboatdata.com/view\\_builder.asp?builder\\_id=304](http://sailboatdata.com/view_builder.asp?builder_id=304)

**ian**

November 30, 2012

Upon further sleuthing, I discover that the designer of the Lanaverre 590 - Christian Maury- is the same guy who designed the 470, which is yet another great Olympic planing dinghy shape that would make a crazy fast trimaran-

<http://www.youtube.com/watch?v=Amy7h9JjfpC>



he also designed the 420, the 470's baby brother that also planes-

<http://www.youtube.com/watch?v=BqxxxUnpL34>

I should also give credit where it's due and mention that the Lightning was designed by the great Olin Stephens of Sparkman and Stephens fame, who had his hand in some of the most gorgeous sailboat designs ever conceived-

[http://en.wikipedia.org/wiki/Olin\\_Stephens](http://en.wikipedia.org/wiki/Olin_Stephens)

<http://www.thegledaproject.com/wp-content/uploads/5-Ranger.jpg>

...this one like the Lightning is pretty much perfection, and the standard by which all other boats of its type are judged-

<http://dorade.org/DoradeClassicBoatArticle.pdf>

**Frank**

November 30, 2012

As Ian knows from our frequent emails, I'm on a fundamentally different page than him re the width of the center hull in a tri. I have heard too many bad stories about what happens when you try to "convert" a monohull onto a tri. Bottom line: It never seems to go very well. There's a very solid reason why purpose built tris all have skinny vakas as well as skinny amas. It works better! Check out the current sailboat speed records - virtually all held by trimarans or by some other craft with a long skinny hull - and the conclusion is inevitable. Long and skinny works best! Not that there aren't some very fast monohulls (Cheubs, Moths, Finns), but if it's three hulls you want, why ignore the abundant evidence from every trimaran designer on the planet? Long, skinny hulls simply work best!

- Frank

**Small Tri Guy**

December 1, 2012

This talk about center hull form for a smaller trimaran reminds me of what Phil Bolger supposedly drew up ... a couple renderings attributed to him can be seen at

<http://smalltrimarans.com/blog/?p=3428>

**ian**

December 1, 2012

Hi Frank-

The converted boats featured here seem to move along quite nicely and aren't being manhandled due to improper design geometry and appear well founded...some are better matches of hulls and slicker in execution than others but one thing that I think isn't being considered is that as far as western sail boat design goes, the abundant evidence from every monohull designer was that long and skinny was always "best" too, for a long, long time.

In some cases it still works best but there are all kinds of reasons for doing it, and reasons not to...there's also the fact that in the big scheme of things, the long skinny ratio of polynesian hulls is as extreme as it gets...using that as an ideal really short changes a lot of monohulls that were really not much different dimensionally than many purpose built trimaran main hulls and may be far better suited to cruising demands than the long skinny tallish hulls with narrow ends that are the current state of the art for big racing tris, or the deeper polynesian inspired hulls.

If you want long and skinny, monohulls are probably the best place to look for adaptable shapes, because the traditional long skinny low volume polynesian style hull doesn't give much room to modify it to some purpose...they are already at their low end limit for volume and so all you can do is make them longer and longer or do chines or not. Anything else and it isn't a long skinny hull anymore.

But I think you've mentioned something about a b/l ratio of 6:1 being as low as you'd want to go, and if so i think you are being pretty conservative in what you consider too wide to work as a tri...this boat is about 5.6:1 and very narrow-

<http://www.asqma.com/yacht%20profiles/Scarlett%20%27hara.html>

The Hereschoff "Rozinante" canoe yawl is very fast and nimble to sail and is also very tender due to being a giant shallow canoe shape...it's b/l ratio is 4.6:1 and it is not at all a fat boat-

<http://www.sailboatlistings.com/sailing/m/18702/main.jpg>

The scow shape in the link Joe posted is another hull form that doesn't look fast but can be...people see the bluff bow from above and the lack of a sharply vee'd entry and assume that it can't go fast- but for many years it was scows that held all of the sailing speed records and the Fireball is a very fast small planing scow-

[http://www.youtube.com/watch?v=XlImIHwO\\_7s](http://www.youtube.com/watch?v=XlImIHwO_7s)

Of course that boat is a pig by comparison at 3.7:1 b/l ratio but manages to plane to weather at trimaran like speeds already...I still haven't seen anything that would cause that boat or something similar to not still do so using a properly designed ama to stabilize it instead of trapezes...all the claims that it won't work seem to center on notions that such a boat could not plane, but I have yet to see one built let alone any documentation of its failure so as far as I am concerned it isn't settled by a long shot even if "every trimaran designer on the planet" agrees, which on a commercial level is about three dozen people doing the same basic designs over and over because that's what people want.

I'm not ignoring the evidence that long skinny tris can and do work and can do it well, I'm just not buying the idea that there's a ton of evidence that wider flatter hulls can't work or are fundamentally flawed on a tri, when they work just fine all over the place under both sail and power and actually perform best when kept flat in a manner that trimarans do naturally and better than almost anything else.

**ian**

December 1, 2012

Here's a great example of a very fast planing tri that uses a fairly wide main hull-

<http://www.youtube.com/watch?v=77rZsB4nvso>

Note that a lot of the time it is just sailing like a planing dinghy and the amas only skip across the surface occasionally...they aren't holding the thing upright at all times in anything like displacement mode and drag is minimal

Here's another of the smaller version, going through a boat wake with ease and I guarantee, with a lot less hobby-horsing and water shipping aboard than a typical needle hulled high performance tri of similar dimensions - <http://www.youtube.com/watch?v=-y24uoE7Yjl>

### Small Tri Guy

December 1, 2012

The Magnum trimaran is unique (as far as commercially-built small tris go) in that the designers seem to have in mind what you're talking about Ian. The bottom on the main hull is relatively wide and flat. The boats are fast. The only thing that I remember reading a comment about (from online videos featuring Magnums) was that the shape lent itself to a bit more "rocker" at times. You can see the bottom of a Magnum on a trailer here...

<http://smalltrimarans.com/blog/wp-content/uploads/2012/12/magnum-tri-flat-bottom.jpg>

### ian

December 1, 2012

Rocker certainly factors into how a long flat hull will perform both in a straight line and turning, and more rockered shapes tend to turn better at the expense of longitudinal stability and quickness to plane.

It's one of the basic design factors involved in shaping surfboards and can be by far the most important element in how well they work, and oddly enough it is *more* tail rocker aft of the beam that makes them less likely to stuff the nose in, as that rocker induces a nose high trim as the board planes and squats on its tail. Intuition might tell you that a very high nose would be better, but that simply doesn't work as that part of the board rarely gets in the water and once your trim is so nose down that it might matter, it's too late.

Longboards with very long straight runs will begin planing on waves that are barely waves, long before anything else will...but once they are on plane the balance shifts radically and to keep one trimmed at speed you have to move very far forward to keep it going, which is the whole point of "hanging ten" and noseriding...

The drawback is that turning input from this position does little and the fin can pop out completely if you try to hard, so to turn you have to move aft and change the angle of attack, and to do tight turns you can stall the planing surface completely at a high angle of attack and let momentum carry you through as you pivot around.

I wish people who haven't could experience the feeling of balancing a longboard at speed like this could do so...it's really very enlightening as far as understanding how vastly different the forces at work are- as you move forward you can feel the power of your weight being turned into thrust by the leverage, as well as an increase in the forces that are holding the tail *down* to a degree that allows you to stand at the extreme nose end and still be moving straight and relatively level.

Those kinds of trim considerations need to be factored in if you want to have a successful planing boat of any kind and certainly present challenges to anyone trying to design a tri that would exploit those principles, but the fact is that traditional sailors are almost congenitally fearful of boats that require those kinds of active trim considerations to work.

They have a point when it comes to boats that are unsafe without constant attention and are unseaworthy, but then again it can be like the three wheeled ATVs that were deemed unsafe as "inherently unstable" while motorcycles that have no inherent stability whatsoever are perfectly OK...trikes are not forgiving as far as bad design geometry and loading and panic steering inputs and require special knowledge to operate safely, but they are far more stable than the bikes that kids ride.

Boats are the same way, and tris have some unique characteristics that allow for some extreme design options when it comes to hull selection and placement and weight distribution, but you have to be cognizant of the trade offs and the critical aspects of how it will all interact with the operator and environment, and even extreme designs need to err to the side of safety and predictability if you are going to call yourself a real designer.

But the long skinny thing has to be viewed within the spectrum of *all* available forms and beam/length/draft ratios that exist and have their merits and elements that can be incorporated elsewhere...and on that scale, the extremely narrow displacement hulls preferred by many are *extreme* hull shapes that can have extreme reactions at speed just like the surfboard shape that you have to stand on the tip of to keep level as you apply more and more power.

Long skinny hulls driven fast get hinky in a seaway and so as the hulls got longer and bigger and faster they had to be made to operate submerged as they punch into any waves like an awl, which is one way of doing it...but the thing is that putting three of these hulls together does nothing to change their propensity to sail under when driven....broaching is another story and a tri will handle that better than the single skinny hull and mitigates many of the stability issues with long skinny hulls, *but* the deeper those skinny hulls are the worse the recovery and the more likely it is to trip.

In a situation like this a wide shallow hull will simply skid and the "best" hull shape for riding out huge seas would be something like a Frisbee or shallow saucer with no edges or depth to catch or turn it uncontrollably as it surfed and stalled. And of course the more saucer-like shapes of things like planing racing skiffs and powerboats offer high performance too, so it seems that there is a whole world of possibilities to design very capable fast trimarans that are seakindly and sporty...

The only thing really extreme about the Magnum is that they dared to not follow the "long and skinny is best" rule...the amas don't even appear to be optimized to plane and yet there it goes on it's fat wide hull planing along in a fresh breeze under a reefed main, and handling chop predictably like a plain vanilla monohull because that's pretty much what the main hull is.

### Small Tri Guy

December 1, 2012

When I interviewed Magnum's UK distributor he made it a point to explain that the designers chose to go the other way from what most designers were doing. (Instead of a long and skinny vaka hull bottom they wanted the relatively wider, flatter one). Their success shows that the concept can work well on a small tri ... other factors being taken into account for, of course.

### Fred Goldfarb

December 2, 2012

I'm surprised no one mentioned the old British "plank on edge" designs that ultimately proved to be rather poor monohull sea boats. With sea states being what they are, so variable, unless you design a tri for a particular set of sea states, probably fairly narrow set of conditions (like the cats currently used in the America's Cup Races (watched a while ago), a cruising tri will need to be used in all kinds of conditions, and designed to get the most out of the desired characteristics. Roomyness (as the old Horstmans were "accused" of having at the expense of something else), or higher speed like the Newick cruisers were, though at the expense of roomier interiors for their size and length. Flatter water usually lets flatter hulls move nicely, bumpier water usually needs a less flat, more "veed" or narrower truncated vee or rounded bottom to move well without wave interference slowing the boat too much. The bow for any design has a large part in how the water separates and starts flowing around and under the hull(s) too, so there's so much to consider for each type: Racing; Racer/cruiser; Cruiser. Any can be a daysailer pretty much as well, though the crew compliment will matter depending on the hull and other design considerations of course. Ultimately, proven designs like Cross, Horstman, Brown, Crowther, etc. and that have excellent safety records show what can be done with the various parameters used in a design.

### ian

December 2, 2012

One thing that plays a huge role in how well a long skinny hull will work is the overall length of the boat, and the fact that there is a minimum amount of volume necessary to float an occupant and have enough freeboard to provide a level of safety underway and in waves...after a certain point you simply cannot build a long skinny hull with enough volume to not just sink when you get aboard, and for a 10:1 ratio hull with fine entry and exit it gets really critical around 10'...any smaller and you'll have a very wet and unstable boat with little reserve freeboard no matter how wide you space the hulls.

That's the extreme end of "small" for any boat, but even a 20' boat with long skinny hulls will have a restricted ability to handle large payloads, and the placement of any loads including people will be far more critical to safe operation than something with wider hulls, or even just hulls that flare out at strategic points above the design waterline to provide flotation/lift and stability in extreme out of trim or big wave conditions.

At the types of speeds such a boat is capable of in the kinds of winds that make those issues a real problem, there's all kinds of ways to deal with them short of shoving the boat halfway underwater every time you encounter a wave, like riding over them...and the fact is that even if you want to go that route, wave piercing hull forms don't have to be tall and narrow at all- surfers use the wave piercing abilities of flat hull shapes to great advantage almost every time they go out-

<http://www.youtube.com/watch?v=X3tMc1FTtM>

-that's an extreme example using high angles of attack, but it's still a low volume wave piercing shape efficient enough to get itself and a very high drag human through very large waves relative to its size in a manner that actually creates forward thrust, all for the cost of weighting/orienting it properly at the right time.

Applied to a trimaran, very flat surfboard-like amas with springy rear crossarms could actually take the energy developed by heeling/submerging and being pressed upward by waves and the like (including the main hull's bow wave), store it in those springs, and then release it a way that would vector that energy into forward thrust, much the same way that a surfer pumps a short board-

<http://www.youtube.com/watch?v=ZVB2VhcSdpl>

-interesting to note that the shortboard "hop" is very similar to the bouncing motion of extreme planing skiffs and that the tradeoff for the easy speed of the longboard is the ability to turn quickly, while the short board can turn on a dime but has little inertia to keep it gliding and needs help in smaller surf.

### ian

December 3, 2012

Great comment on the "plank on edge" boats, which were rules-based aberrations like the IMOCA swing keelers, bulbous reared IOR boats with massive tumblehome, and all manner of oddities that could do good things but often developed fatal flaws as everyone followed each other down the next rabbit hole...there's a really good article about the type and its failings here-

<http://intheboatshed.net/2012/02/18/jeff-stobbes-striking-and-beautiful-victorian-style-plank-on-edge-yacht/>

-and more here, that goes into related rule based designs and progressions in the "common knowledge" about what makes a fast sail boat, and how many "fast" boats aren't-

<http://www.storerboatplans.com/wp/design/2469/>

BTW, don't miss the comments sections, there's other posts that go into a lot of good detail on the subject of both truly fast designs and reactions to them...

One boat mentioned in that article should be of particular interest: the original maxi sled Infidel/Ragtime...as radical as could be when launched, dismissed as dangerous, silly and eventually ruled out of competition for being too successful...but still afloat and competitive nearly half a century later after countless offshore passages where she was driven hard and dominated over larger boats...modified and upgraded to be sure, but still riding the same dirt simple hard chine hull that blends from a narrow deep vee'd forward section to a nearly flat surfboard shape astern, and looking for all the world like a maxi tri looking to trade in that lead bulb for a pair of amas-

<http://www.sail-world.com/USA/index.cfm?SEID=2&Nid=28564&SRCID=0&ntid=10&tickeruid=0&tickerCID=0>

<http://www.boatdesign.net/forums/attachments/sailboats/30205d1237850991-ragtime-lines-maybe-ragtime.jpg>

Not so coincidentally, Ragtime's designer John Spencer was also the designer of the Cherub dinghy Frank mentioned as well as other fast planing monohulls, and Ragtime is obviously highly influenced by fast planing dinghy and surfboard principles. At launch it was heavy compared to the same type of boat today and so didn't plane so much as surf for **very** extended periods, and could do it pretty consistently in the low-mid 20 kt. range with recorded bursts up to 30, all back in the mid 1960's long before tris were doing that, or even being built at that size...it still does-

<http://www.youtube.com/watch?v=hoYLOWEKs1A>

Point being that there doesn't have to be a solid dividing line between long/skinny and flat/planing hulls, except that for the purpose of a **small** trimaran, to have the ability to plane or surf consistently you need the beam to develop any planing surface because you'll never get enough in a long/skinny hull unless it is something like a surfboard, which as has been pointed out has very definite drawbacks in a seaway.

Ragtime gets around it by being a narrow vee up front, and a surfboard/powerboat in back...she's a bit slappy at times like any simple hard chined boat and can get wet when driven to weather, but a lot of that has to do with heeling and the big rig needed to get all that lead moving and could no doubt be evened out in a trimaran version that had a significant percentage of the overall weight removed- close to half the displacement, if I remember correctly.

65' LOA and 11' beam for a b/l ratio of 5.9...not a fat boat at all, but also not shaped like a Polynesian ocean catamaran hull... it is shaped more like a Polynesian planing hull- the surfboard- just modified for oceangoing to let the bow cut through the water rather than slap down on it, and given some freeboard.

It's a well proven design concept - the Cherub is from the early 50's- that can be shortened considerably and will still work, but really needs to be sailed as flat as possible which is the biggest drawback using this type of hull as a mono- you either need ballast in larger boats or trapezes/wing seats/hiking straps in smaller ones- racing scow sailors sometimes stand on the windward bilge boards for leverage...but heeling flat hulled monos **really** slows them down and causes them to ship water instead of riding over it, and the shorter/beamier they are the weirder they get when heeled...but even the short beamy ones can develop gobs of power when kept level.

now if only there was some type of sailboat platform that had high initial stability and operated normally without much heeling...then a wide planing hull used as part of it would be able to sail flat where it performs best most all of the time...and with the high initial stability it could even do it without any ballast.... if only...

Seriously though- long skinny hulls like kayaks in the 8:1 range and more extreme hulls seen on tris and cats can **only** be sailed safely with powerful sails if they have some kind of stabilization, and the low volume restricts the ability to do it with ballast. Multihull platforms allow extremely narrow for their length hulls that would be mostly useless otherwise to be useful, and what advantages may lie in those hulls can then be exploited...which is a great thing and you can certainly choose to never venture away from those hulls and do just fine.

All I'm saying is that the same thing can be done with other hull forms using the trimaran's unique geometry and other qualities to exploit good things and mitigate bad ones, and it is a never ending source of puzzlement to me that people would not only say this can't be, but would make that claim over the suggestion of using hull types that **can** function as boats in their own right and were proven decades ago, that would only be improved by losing ballast weight and being kept level by a tri platform.

I totally get that there might be some qualities to the ride or seahandling of such a boat that might make it unsuitable for some people's style of sailing or location or other factors, and I respect their concerns and ultimate choices and would very likely make the same ones were I in their shoes...but the biggest advantage of multihulls is their adaptability and if the "you can't do that" and "monohulls are best" reactions to the early days of modern multihull development had been left unchallenged, we wouldn't even be having this discussion.

#### **Small Tri Guy**

December 3, 2012

Amazing discussion guys! And amazing references for additional info. I once had an email exchange with Michael Storer about what would make for an ideal rig for a certain small trimaran design. He is a very, very smart guy. He blew me away with his knowledge.

#### **Fabien FOUCAUD**

December 20, 2012

Hello,

Sorry for my poor english.

I'm the builder of Tricote and i'm proud to see an other article about my boat.

And discussions about this article are very interesting. It's a little difficult for me to read and understand all technicals words, but with Google translate, it's long but very interesting.

If i can answer to any question you have about Tricote, don't hesitate.

Thank you.

#### **Mark stevens**

September 30, 2014

Hello All.

I am seriously considering converting my 'Pandora international' into a tri using hobie 18 ama's. I intend adopting the same beam configuration as the 'Tricote' boat. Do you think the Pandora would make a good main hull?

All the best!

#### **Small Tri Guy**

September 30, 2014

Hi Mark,

It might work. If I were you, I'd simply invest a few bucks and speak to a naval architect like John Marples (marplesmarine AT gmail DOT com) and get his take on things. It would be worth it to pay him for an hour of his time to do some consulting with you. Send him the Tricote links from this website with pics of the Pandora before your scheduled phone appointment in order to give him time to access things. That will give him the info he needs so you can receive a top notch consultation. In my opinion,

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

doing that would be well worth it in order to either move forward successfully ... OR ... stay away from making a bad investment of time and money to create a conversion that won't perform well.

**Mark stevens**

September 30, 2014

Hello,

Thanks for your input, I will drop him a line to see what he thinks.

All the best.

**Small Tri Guy**

September 30, 2014

UR more than welcome Mark :-)

John's hourly rate is so reasonable that I wouldn't hesitate to get his input on your idea before pouring lots of time/money into it. He is among the most knowledgeable out there when it comes to multihulls too.

# Small Trimarans at 2012 Annapolis Boat Show

December 5, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Motive 25R trimaran, Motive trimaran, Searail trimaran, UL 20 trimaran, Ultra Light 20 trimaran, Warren Light Craft

## Comments

**ian**

December 6, 2012

There's a very short, very edited video on Youtube of the motive 25R doing sea trials in San Diego Harbor-

<http://www.youtube.com/watch?v=ngV3iM8TvyQ>

- even if you cut it some slack for being a test sail, the ride attitude seems more than just a couple of tweaks away from being fixed. I get that wave piercing amas can look odd and be very low slung at the stem to get more volume, but even if that were the case here, it doesn't seem to be working.

I can't imagine sailing that boat riding like that into anything resembling a wave or even the typical wakes that you get in that stretch of the harbor, and it's worth noting that the only real sailing shots are on a course that is a beam reach about 90% of the time and for what it's worth mostly in line with tidal currents.

That point of sail is also where in a flat sea state any long skinny tri will be least likely to show any bad tendencies of that boat type and it might be the only point of sail to not show it if a boat were prone to issues from a subpar design - to weather this type of tri can hobby horse a lot, especially with tall rigs and any seas, and on a broad reach with lots of power up high they can pitchpole readily if the possibility wasn't balanced against other less critical factors and taken into account.

Either there's just not enough buoyancy forward to keep the rig from pressing the boat into a nose down stance or the crew weight and live ballast/trim needs were misjudged to some degree. Judging by the video, it's probably both- the boat \*is\* hobby horsing a lot for the conditions and that masthead is whipping about to a degree that is also pretty extreme- that is something that might be just a matter of ironing out little rig tuning glitches here and there, but maybe not...but there's a couple of points in the video where the bows take a very short but very sharp dive that is not a good omen when they are in what are pretty calm conditions on the bay.

In the one shot from astern at speed you can see the windward amas stern begin to rise pretty quickly...then the shot cuts away.

It also appears to yaw to an alarming degree for a boat that should have directional stability to spare according to the theory that long/skinny gives you that...it does in monohulls and can in tris \*but\* the boat as a whole needs to be considered and at some point a tri made wide enough will not function like a single long skinny hull will in that regard no matter how narrow the individual hulls are. Combined with extreme low volume bows it can make for crazy handling that can be tricky even for experienced operators.

Looking at the plan views they have an extremely square footprint with the transoms all even, and only slightly more volume in the needle shaped main hull than the needle shaped amas, which with all due respect to those involved always looked to me like an artists conception of something that looks slick but would never really work that well if you actually built it- and the 15 footer looks like the same thing just shrunken down, which with the same crew weight aboard seems destined for a similar ride, just lower to the water or possibly in it.

I dunno...maybe they can do something to make it sit right and maybe it will scream right through waves after they shake the bugs out, but there's just so many things about those boats that seem fundamentally off to me and that video isn't doing anything to change that. FWIW, here's a video of the boat at rest-

<http://www.youtube.com/watch?v=u-X408Y6-EQ>

- certainly adding crew will change things but without much static buoyancy to work with and no gradual increase from hulls that get wider above the WL, even with everyone sitting as far aft as they can the result may very well be that it will just have the same stance, only with less freeboard....maybe not so noticeable sitting on a mooring, but get underway and in a swell and things could go south pretty quickly.

**Wade Tarzia**

December 6, 2012

A trimaran show must take up a lot of space :-)

**ian**

December 6, 2012

Seems like I'm not the only person with the same reaction to the first video, and just to be fair here's what the people behind it have to say-

"The only real problem during the first sea trials, was a slipping mainsail halyard, due to a mismatch of cam size. Our rigger calculated that smaller diameter line was sufficient, but the appropriately smaller size cam had not yet been installed. No big deal and easily resolved, but it caused naval architect, Carl Persak, to sit too far forward while babysitting the halyard. Likewise, naval architect, Jeremy Wurmfeld, was also forward in order to communicate with Carl. Ideally the crew weight would have been shifted aft for this first video, but we felt it was more important to get some video up immediately, to show that the boat is real.

This forward, heavy crew trim in the video caused a few people to ask if the outer hulls were twisting. I can assure everyone, there is no twist. In fact, the platform is so stiff, we've been able to downsize the Dyneema water stays from 12mm to 6mm, and our M.I.T. composite specialists feel that with a slight increase to the crossbeam laminate schedule, we may consider eliminating the water stays altogether!"

[http://motivetrimarans.blogspot.com/2012\\_10\\_01\\_archive.html](http://motivetrimarans.blogspot.com/2012_10_01_archive.html)

There's also a video there of further sea trials where the boat's fore/aft trim does appear vastly better...I'm still skeptical of how it would do at speed in any kind of real chop or serious swells, but hope that for all their efforts that I'm proven dead wrong and they do well.

I also wonder about the overall concept of a square-ish low volume 25' tri designed to fly the main hull being presented as "a stable, easy to sail package"...not trying to pick on these guys, but the short history of modern trimaran design has been plagued by all kinds of marketing claims that range from overly optimistic to disingenuous to outright negligent, like saying that a trimaran "cannot capsize".

I desperately want to see the commercially built small tri market flourish for all kinds of designs and applications-that alone would make average prices go down on both new and used markets- but sadly my experience tells me that rather than home builders and experimenters being responsible for a majority of the boats- and not just tris- that should never have gotten off the drawing boards, it's often commercial interests with lots of financial resources that get caught up in their singular vision and ignore reality and press on regardless, because they can afford to.

That vision might be a particular look or performance envelope that ignores safety, or a low price point that can only be achieved through dangerous underbuilding, or one so high that the market is a gamble- even if the cost is justified by state of the art tech, what happens when the next big breakthrough comes along, whether it's a better understanding of hydrodynamics or a material/manufacturing breakthrough?

Stuff's coming so fast that you can't hardly keep up, and instead of taking 30-40 years today's state of the art CF hulls will become like the old Hobie's and Prindles and Sols that are now too primitive to consider as donor ama boats in maybe 5-10 years...maybe 15 years, maybe 18 months...you don't want to be a buyer \*or\* a builder when you've just invested a big chunk of change into high dollar tech only to find it obsolete before you got any real use out of it.

I don't have any answers except be careful and do your homework whether you are considering building boats as a business, or are a consumer looking at what commercial builders have to offer.

These things are machines just like a dishwasher or a car or anything else and consumers should never feel apologetic about voicing their concerns, especially when considering things that purport to be the state of the art and are priced accordingly- and people who build them should welcome the opportunity to defend their ideas and craftsmanship and set the record straight and gain a convert.

**ian**

December 7, 2012

Just to be clear since it might be construed otherwise- the "cannot capsize" comment was NOT in reference to the Motive marketing materials or any of the other boats/builders featured at this show....I just remembered it as a particularly egregious example of dubious marketing hype in an older post here about a small beach tri specifically aimed at resorts, that would be renting the boats out to complete novices to boats and sailing in general.

**Small Tri Guy**

December 7, 2012

The small, genuinely cartopable tris built by Warren Light Craft are a bonafide commercial success. Both Ted and Zac Warren are amazing. They never cease to amaze me! Whether the Motive and SeaRail tris enjoy commercial success or not is another question. I hope they find their market ... and I wish them every success in this regard! There are guys out there with both the means and desire to have these boats. The continued economic slowdown worldwide is still keeping many wallets closed to higher price points.

**Small Tri Guy**

December 7, 2012

The comments about hull shape and trimaran conversions from the previous "Tricote" post (<http://smalltrimarans.com/blog/?p=8989>) really got my wheels turning. Some great insights! I can't help but think more than a few guys are going to have some interesting discussions, in coming months, as a result.

**ian**

December 7, 2012

One thing that seems to separate the WLC boat from the others is that they are treating every boat as a semi-custom order...not sure how easy or cheap it might be to get customization on the others, but it's a very wise move not just as a way to expand your potential customer base, but to create a fleet of boats that are better suited to the many uses and locations where they'll be used than something attempting to be a one size fits all approach.

Which brings up the fact that trailerable and cartopable boats are by default going to be used in many different locations that can have very extreme differences, so designers need to compromise to some degree by erring to the side of anticipating worst case scenarios when designing/building them.

Problem is that high performance boats in general tend to do the opposite and are often the first ones to get into trouble when conditions test their limits, so a safe and capable trailerable high performance tri is going to be a serious design challenge for anyone.

There are some very stark differences between what might be important to the design of a boat intended for sailing the gulf coast or the extensive tidal estuaries of the eastern seaboard, and one designed to sail on the pacific coast of the US- the former tends to prioritize things like shallow draft and beachability and may never see a big ocean ground swell or large tidal shifts, while the latter may be operating where the only "beach" is a rocky, desolate bluff with huge waves pounding the rocky reef in front of it daily...and where there might be a beach suitable for landings, if you don't time it right you may find yourself with a long portage back to the water's edge if you hit at high tide, or maybe under military escort by a SEAL team if you hit the wrong beach.

West coast conditions favor things like the ability to claw off of lee shores (because it's all one big lee shore) and to handle large ground swells and wave action, and beaching outside of harbors can be dicey to suicidal if there's a swell. Low freeboard, low volume hulls with little flare topside can certainly work here but they can be very wet offshore and need to be seriously engineered and built to withstand the strain that they will encounter if they are to be sailed in places like SoCal/ West Coast of Baja, or the notoriously treacherous waters of Northern CA and Oregon and WA...San Francisco bay is just crazy with currents that can create standing waves and huge winds that shift in both direction and intensity \*at the same time\* so that a gentle spinnaker run in light airs might become beating to weather under a reefed main literally

within seconds...I am not exaggerating and it's like that pretty much every day at some point. Even big boats get into big trouble there on a regular basis, and it can just eat weak boats up...this is a very typical afternoon well inside the harbor-

<http://www.youtube.com/watch?v=DG3jA6Fswak>

So – a successful small trailerable tri is also going to be an ethical challenge in the sense that there will probably be some people for whom \*any\* boat is just not a good choice for a bunch of reasons, and sellers need to be realistic about that and serious when considering people's safety...\*that\* kind of customer service is often the only difference between getting a "good" boat vs. a "bad" one.

ian

December 8, 2012

Here's what I wish could be directly tested, and would be if I won the lottery- I'd love to see a perfectly sensible and proven design like the Cross 18-

<http://smalltrimarans.com/blog/?p=2703>

-built using all of the materials and high tech methods that have become available since its introduction, that these new boats are all using to get their incredibly low weights and big rigs.

It wouldn't be cheap but it might match or even outperform the newer boats in many significant ways. In epoxy/glass/ply the Cross weighs in at 400 lbs, so half that is probably not an outrageous goal...there's more boat there so it will likely need to weigh a bit more. Apply WLC's engineering smarts to adapting the materials schedules and build techniques and I've no doubt they could get very close. Put an F-18 rig on it, find one of these new boats to match race and watch them go.

My guess is that at those weights with that much SA, at these sizes the boat that will still be sailing when the other boat has to back off will be the old school design with freeboard. I'd also reckon that when you are in 1:1 weight/SA territory, when the Cross is still capable of being pressed further, you'd be very close to the 20 kt speed figures that these modern boats shoot for, could fly the main hull, etc...it can already do 12-14 and the small Crosses are very lively boats that surf easily at twice the weight.

For perspective, the tea clipper Cutty Sark could do 17.5 kts in the right conditions and carried 32,000 sq ft at 2,100 tons displacement which by my calculations is about a 13:1 ratio. A comparatively modern fast mono like a MacGregor 65 can do 20 kts and has an almost identical ratio. The ultra radical high tech IMOCA canting keeler Hugo Boss is penciling out at roughly 3:1 with downwind SA.

A couple of hundred square feet of sail would probably let you do 20+ kts with a 200 lb refrigerator for a hull if you could keep it all together and upright. These types of beach cat tris have their place and are no doubt fun to sail and can be well worth the price, but with the materials being used all being equal there's other designs that would go as fast and probably longer...not to mention being far better platforms to sit on while you wait for a tow after you blew your rig out.

I hope that we will see more nice boats from the past getting revisited as materials and fabrication technology advances...with a good chined design a manufacturer could use composite sheet materials and fairly traditional s&g construction and create ultra light hulls quickly with minimal tooling – just a strongback/jig as opposed to very costly molds- that also allow for easy modification and size variations.



# Weta Trimaran Rally in New Zealand

December 13, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Weta trimaran, wetamarine

No Comments

## A New Trimaran by Ronaldo Fazanelli (in Brazil)

December 15, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Fazanelli trimaran

No Comments

# New Seaclipper 24 Trimaran Launches

December 18, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: John Marples trimaran, Seaclipper 24 trimaran

## Comments

**Larry S**

December 19, 2012

Fabulous job Lenny! Can't wait to hear how she handles and performs when wind picks up!

**Fred Goldfarb**

December 20, 2012

Lovely boat! 6.5 kts in light air with 4 good sized guys aboard? Very, very nice. Love to see her completely finished (ports and all) and how she does after a season of sailing/cruising. Good luck, safe sailing!

**TomH**

March 26, 2014

The Youtube vid on page <http://smalltrimarans.com/blog/?p=9108#more-9108> is blocked

Do you have a link to an UN-blocked version?

Thanks

**Small Tri Guy**

March 26, 2014

Hi Tom,

Apparently, that video has to be re-done by Lenny for copyright reasons. I am waiting on him to re-post it with a new YouTube link. I'll then be able to post the new video.

# Flash Harry's Big Bro – the Unique Sid Trimaran

December 21, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Flash Harry trimaran, Sid trimaran

No Comments

# Best Guess Trimaran Sailing in Puget Sound

December 21, 2012

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Best Guess Trimaran

## Comments

**Frank**

December 25, 2012

Love it, Jim. A great job by a man after my own heart. Build as much as you possibly can, only buy what you absolutely have to. What do you end up with? A boat that gives you 90% of the performance of a pricey tri – at 10% of the cost!

Thanks for the great photos, too. I'm sure I can "borrow" several of your ideas.

– Frank

<http://www.DIT-Tris.com>

**Frank**

December 25, 2012

Oops...my correct web site address is <http://www.DIY-Tris.com>

– Frank

**Robert**

December 28, 2012

It looks like a great boat. I live in Seattle and can relate to comments about how the boat should match its environment. Many small sailing tris built off kayaks or canoes are just too wet for our waters, heck even sailing a Hobie cat on L. Washington in August can be a wet and cold experience. I'm thinking about building a boat next winter and would love to see Jim's boat in person. Robert at rkdjones AT gmail.com

**ian**

December 30, 2012

I've never sailed in the NW, but I've stood on the bridge at Deception Pass watching this from above...

<http://www.youtube.com/watch?v=4B3sd0XRFBE>

just to be clear- that is not a river, but a narrow straight between two islands that sees double digit current speeds and class 2/3 rapids...it would be potentially deadly even if the water were 80° F.

What's the best hull form for sailing through a 15' diameter whirlpool? :)

**Small Tri Guy**

December 31, 2012

Great video link Ian! It really shows what a sailboat (or any boat for that matter) is up against in a waterway like that.

# Small Trimaran Sailing in the Outback

December 23, 2012

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: windrider tango trimaran

No Comments

# Challenger Trimarans – Freedom of Wind on Water

January 3, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Challenger Class Association, Challenger trimaran

## Comments

**Jeff Pugliano**

July 15, 2017

Do you have a dealer in the US? Are they expensive to ship if purchased in the UK and shipped to the US? I am very interested in the boat. Thank you very much. jeff

**Small Tri Guy**

July 15, 2017

Hi Jeff,

I don't think there is a US dealer for the Challenger. If you want to build a boat that would be along the lines of a Challenger then the Seaclipper 10 or Seaclipper 16 models (designed by John Marples) would fit the bill.

**Willem VaarzonMorel**

February 28, 2021

Do you have an agent in Australia? Do you have any links to Aussie sailing clubs?

# This 18' Custom Built Aluminum Trimaran Wants to Sail Again

January 17, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: aluminum trimaran

## Comments

**Fred Goldfarb**

January 18, 2013

Nice old boat. Lateen or lug rig like sail/mast set up, should be easy to work. Not sure if aluminum was best but it could be done in another material today, 'glass maybe, rotomolded hulls maybe, etc. Should make a wonderful daysailor.



# Seaclipper 20 Trimaran Charter in Florida

January 21, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Seaclipper 20 trimaran

## Comments

**ian**

January 21, 2013

I love the fact that the author has managed to parlay the unique qualities of the tri into a superior ability to get to the uncrowded fishing grounds...no doubt others will follow suit and it might get to be like the old days of eastern seaboard fishing schooners racing each other to get to and from the best fishing. Gotta love it.

Also reading about the etiquette thing reminded me of the time that I watched a very famous local racing sailor (whose name rhymes with "Tennis Honor") sail his big America's Cup catamaran at full speed directly through a densely packed fleet of sport fishing boats that were all working a huge school of albacore off the Coronado islands, his giant cat flocked by about a half dozen Zodiac chase and photo boats as was always the case in those days.

He just waved and smiled as he did it, oblivious to the fact that the wild double arm waving directed towards him by dozens of people was an attempt to get him to turn away and keep him out of their lines...evidently he thought the other gestures were more fans making note of his #1 AC skipper ranking, until one skipper finally got on the PA and explained it to him.

**Larry**

January 22, 2013

Great to see another SeaClipper 20 in action and in rather a unique environment/application that really exploits its capabilities. Best of luck to you Capt. Channell!

**David**

January 27, 2013

I like this boat. What a versatile design.

I'd like to know how long it takes to set up the Seaclipper 20 at the launch and how long to break it down again.

**Dan Letton**

May 29, 2016

Dear Michael,

I read your story with great interest as I too am a "fan" of the Seaclipper boats. We built two Seaclipper 16's for a sailing school I started when we were working as Christian missionaries in China. I grew up in central Florida and have been a sailing "addict" ever since.

My wife and I are now living in Bluefields, located on the east coast of Nicaragua! I am in the process of building a 38' catamaran (Richard Woods design) to carry medical and pastoral teams up the rivers and along the coast. (Please visit our blog: <http://www.tropicpegs.blogspot.com>).

I also have a 20' dory that I plan to "convert" to a trimaran, using some of the design ideas developed for the Seaclipper 20. I plan to use it in a similar way to yours here in the protected bays, rivers and inlets along this interesting coast.

It would be great to hear from you (between fishing trips!) sometime.

Blessings to you and your family,

Dan Letton

dan.donna.letton [AT] gmail.com

**Small Tri Guy**

May 30, 2016

Hi Dan,

Great to "meet" you. So great to hear about how you've used multihulls in your missions work! That's really neat. Great blog you've got too.

Is this a photo of the Woods catamaran you spoke about? - <http://4.bp.blogspot.com/-MA8dou64ZL4/VVakThq2LJI/AAAAAAAAAeQ/lbeOPFRILVc/s1600/P5030165.JPG>

It appears to be a very "boaty" community where you live. Looks great. Let us know if you convert that dory to a trimaran ... we'd love to see it :-)

**Dan Letton**

October 8, 2016

Hello, Mile,

Please forgive me for not answering MUCH sooner, but I haven't looked at this site in awhile.

We launched "Caribbean Grace", the 38' "floating clinic" on August 24th here in Bluefields.

Still some interior work to do, but we are hoping to make our first trip up-river in November.

How has the fishing been? Hope you survived Hurricane Matthew OK.

2/15/23, 7:38 PM

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I also have plans to use my dory converted to a tri in the crabbing industry here on Bluefields Bay.

Let's stay in touch

**Dan Letton**

October 8, 2016

Hello again,

Yes, this is the boat as it looked several months ago. We have recently up-dated our blog with new photos and info. at <http://www.tropicpegs.blogspot.com>

Thanks,

# New 24-Foot DIY Trimaran – “LocoMotion”

January 29, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 24-foot trimaran, diy trimaran, locomotion trimaran

## Comments

### Wade Tarzia

January 29, 2013

Nice boat! The foam bottom makes a very seaworthy option — I am considering it for my next boat but worried about the foam hitting the beach, so I am wondering if a wooden keel going down the center of the bottom, cut to the planned rocker curve with the foam faired flush with it, will provide some protection with only a moderate addition of weight?

Does it have good leeway with that tiny leeboard? I had a 4 foot leeboard on my 16 foot outrigger with only 90 square feet of sail on it and needed to move to a 5 foot board (3 feet of board clear under the bottom of the center hull) to get to windward (footing vs. just pointing) decently. Carry on!

### Stefano

January 30, 2013

Again, thumbs up for Frankie !! Great job. I'm going to steal some hints from this one, in particular adding some floatation BELOW the waterline thus raising the whole hull which in return raises also the amas and reduces drag ( while raising the amas in the attempt of getting them out of the water may just sink deeper the main hull, as it happened to me )

As for Wade's question which I also asked myself, of supporting the lay up and foam with a wooden profile, I'd perhaps go for one more layer of 6 oz fibre set in epoxy. This will add up to more most boats would have anyway, and without an inner core to support the external skin.

Another option is to choose a more costly outer layer. Live with blue foam inside, but then add a 1/4 or 1/2 inch termanto on the outer side. This is structural foam and bonds very well with epoxy but density is almost triple than styrofoam (it's the red stuff that fishing corks are made of basically: expanded PVC). Not to mention the cost... Let us know what you did :-)

### ian

January 30, 2013

I like Wade's idea, which isn't much different from how surfboard stringers are set up- you could even draw out the rocker on the ply and then glue it up with the foam in a big block, and then use a power planer to take it all back to the rocker line.

Another way to do it would be to cut the final curve on the ply stringer, laminate it all together, and then use the stringer as a guide for a hot wire. Also you don't have to limit it to one stringer and can use multiples both for strength and as guides for further machining/shaping.

Once the hull is shaped and covered, for something subjected to serious repeated beachings I would probably go one step further by adding some type of sacrificial strip of plastic or metal that would act as the direct point of contact.

I really like the boat and the new amas really make it all come together....one question I have is what was the issue with the seating? I'm still not clear why they didn't work as planned or what the fix was...

### Frank

January 31, 2013

Hi Guys – I never put keels on my boats because the water here is so shallow, and it also makes coming about much slower on tris. The foam bottom has two layers of glass, so I think it will be sturdy enough – especially since I only beach it on sandy places. Sorry if I didn't explain in the article just how sturdy I have tried to make the hull bottom. And yes, the foam provides so much flotation that the flat floor is about 2" above the waterline!

As for the lateral resistance, there are two very big leeboards on the hull as well as two fins on the amas. It points higher and goes faster doing it than any of my other boats, or for that matter, and of the boats I've sailed with – keeled monohulls included.

The original seats were beach chairs. I was looking for a quick and cheap solution – but that wasn't it. Not only were they uncomfortable, but they also moved around too much. Now I have some cheapo moulded plastic seats mounted on pedestals I made. They work great – stable, comfortable, and totally weatherproof. In fact, I'm using the same seat on my new 19' tri.

Cheers – Frank

### Wade Tarzia

January 31, 2013

What is the area of the leeboards that extend under the hull? You have about 160 square feet of sail, so going by the rule of thumb of “leeboard area should be 4% of sail area” (daggerboards with the hull bottom serving as an end-plate can have less area) that suggests a need for 6.5 square of leeboard (not counting topsides bearing surface) — I am a rank amateur, so I'm just repeating what other pros have told me, and I'm very interested in others' experience since for the foreseeable future, all of my outrigger craft will use leeboards. I suppose the faster the boat sails, the more the dynamic pressures on the board will replace board area? And the situation changes if you use asymmetric boards. No critique of your design, just curious.

### Frank

January 31, 2013

I read all the same stuff you read, Wade. How much of it is true, I can't say. But I have sailed one or another of my boats for several hours at a time, about three times a week for the past 3 years, so I can at least tell you what my personal experience has shown.

The twin synchronized leeboards on the 24 footer (AKA “LocoMotion”) extend about 32” below the waterline, and are 14” wide at the bottom. So conservatively, they give

me about 5 square feet together. And the ama fins are 8" x 30", so whichever one is in the water is giving me another 1.6 sq ft or so. What I can tell you for sure is that this boat goes upwind like gangbusters. We can make a steady 9 mph at 45 degrees off the wind if the wind speed exceeds 10 mph.

This blows the doors off of any other boats we've sailed against. At a recent meetup (West Coast Trailer Sailors) the group had about a 2.5 minle run dead upwind to get from where we were gathered on the beach to our launch point. We were about the last to leave, but by a wide margin the first to arrive. We not only outpointed all the other 11 or so boats, but went a lot faster doing it.

To quote the group leader, "Fastest damn thing I've ever seen." I'm not 100% sure why this boat is such a screamer upwind (and on all other points of sail) but that was definitely my goal when I built it. Waterline length is almost 24' and the waterline beam is about 23". Coupled with the 187 sq ft of sail we were carrying that day, you're gonna have a pretty quick boat. Plus, it weighs only about 350 lbs fully rigged. So I have to say, although there was a definite learning curve to sail it well, it has exceeded my best expectations.

- Frank

### **Ron Falkey**

February 1, 2013

Frank,

Great job! The photos and your write up here do a very nice job of showing off your design and the detail that went into this truly successful project. You have reason to be proud. And at nearly twice the weight, similar sail area and a shorter (17.5') waterline, it's clear Dalliance will be easily out paced by LocoMotion, come Cedar Key this May. I look forward to meeting you and swapping stories and design ideas. My boat has been a progression with parts being repurposed from one incarnation to the next. I still have parts on Dalliance left-over from the 16' CLC Millcreek Kayak that grew into my first small trimaran, Oceanid. The first set of akas I designed for my boat were also blue builders' foam. The foam was built up to an 8" BOA with a plywood keel/stem/profile (ala Gary Dierking) and short fins like your's for lateral resistance and protection from oyster bars.

There appear to be some significant similarities between LocoMotion and Tribal Menace designed by Chris Ostlind. But I don't think he has had the pleasure you have here, in that I am not aware of completed build of his 22.5' Everglades Challenge intended trimaran just yet. Have you had the chance to share any thought with Chris? He is pretty prolific with his designs, and seems to favor fast day sailors too.

Joe, I am a first time poster here, but a frequent visitor. Thank you for the fabulous work you do in bringing us interesting stories and news, and in promoting small trimarans.

I am sure I do not comprehend the magnitude of maintaining a continually interesting quality blog like this, but please do keep up the great work!

### **Frank**

February 1, 2013

Hi Ron, and welcome to Joe's first-rate blog! Great to see you here. I'm sure that Joe would love to have you write an article or two about Dalliance. I have always admired her from afar - mostly because my small tris couldn't catch her :) She's a work of art, and I definitely look forward to swapping stories at Cedar Key. I talked Laura into coming with me this year, so I'll be able to bring LocoMotion. (Unless / until I turn it into a folder, it requires two to launch.)

I haven't communicated with Chris Ostlind, but I have seen many of his great designs. He does seem to share an interest in quick day sailers, so one of these days I hope to meet him as well.

I also want to build a camp-cruiser. One of the reasons I don't spend more than Saturday at Cedar Key is because I can't sleep on any of my boats. Perhaps when I see Dalliance up close, I'll be inspired to remedy that.

Looking forward to meeting you at Cedar Key, and possibly at the EC "fleet assembly" on March 1 as well.

Cheers - Frank

### **Wade Tarzia**

February 1, 2013

Thanks for previous answers. I want to ask one more before I start on my own foam-bottomed outrigger. I have assumed that the foam need merely be scored with a 50 grit sandpaper before epoxying the blocks together. Did you use any other trick to ensure the foam lamination stays together, aside from glassing over it all onto the topsides?

### **Frank**

February 1, 2013

Hi Wade - I didn't score or rough up the foam sheets at all before gluing them together. I don't think it's necessary. I uses PL Premium, which sticks fine regardless. But next time I think I'd look for a contact cement of some kind, because anyplace you cut into the PL Premium it tends to tear out chunks of the foam. Any contact cement should be plenty strong for the job, and would also eliminate the tearout problem.

The strength of the overall structure comes partially from the two layers of glass over the foam, and partially from the 6 mm ply flat floor that the foam is glued to. (I would uest the PL Premium here again, but not between the foam layers).

Hope this helps - Frank

### **Small Tri Guy**

February 1, 2013

Hi Ron,

Thanks for your kind words (I changed the wording in your post to reflect the reply you sent a little while ago). It's guys like you that make smalltrimarans.com a fun, informative and inspiring resource for lots of us "little tri folks" all over the world.

And YES ... I'd love for you to share some info and pics about "Dalliance" (assuming she is in trimaran configuration). Great stuff!

Joe

### **ian**

February 1, 2013

In regard to Wade's question, one trick that can help when assembling and shaping a laminated foam block like this is to use strategically placed wooden dowels and epoxy as tie rods to "pin" the sheets together before shaping...kind of like a long wooden rivet running at right angles to the plane of the stacked sheets.

If you run them long you can use the extra bits sticking out like cleats to lash it all together with twine and hold the sheets tight. When the laminating glue cures the block will stay together rigidly while it is in the un-glassed state with almost no chance of it coming apart even under very aggressive machining.

One safety warning: If you use epoxy or anything that cures hard as your laminating adhesive, be *\*extremely\** careful when shaping laminated foam sheets, as the exposed edges of the cured adhesive can cut you like raw sheet metal if you slip while shaping, or more likely when you unwittingly rub your hand across the surface to feel your work or get the dust off.

**Frank**

February 1, 2013

Wade, if you use contact cement (as I definitely will next time), there's no need to pin the sheets together at all. They will stick on their own – with so much adhesion you won't be able to separate them. Ergo, you'll need to make sure the alignment is spot on before you allow them to touch.

PL Premium, on the other hand, gives you the option of moving things around after they touch. But you'll have to use weights of some kind to hold the sheets together until the PL Premium sets — and hope you don't encounter any of that very sturdy glue during the sanding process!

Cheers – Frank

**Stefano**

February 4, 2013

To Frank: for tue glueing process i would use rope and spanish windlasd . Please tell us more of how ti SHAPE the foam

**Wade Tarzia**

February 4, 2013

Thanks for ideas.

**ian**

February 4, 2013

Frank is right that you don't need the extra mechanical strength of the glued in wooden pin idea, but one other advantage to using that type of thing is that allows you to register the sheets for perfect alignment when gluing- just get the block of sheets where you want it, ram a couple of un-glued dowels through and then you can dis- and re-assemble it as much as you need to with everything matching back up perfectly.

another thing that comes to mind is that while large foam shapes like this are very feasible structurally, building a big block of foam that will have much of its volume removed in shaping can add a lot of expense for little real benefit to the final product. Even "cheap" foam is incredibly expensive these days, and sure, it's easy to cut and shape but the resulting dust and scrap is a huge mess of previously valuable material.

For that reason if I were doing a shape of this size I'd do the rough shaping of the lines by cutting the various curves and profiles on the individual sheets prior to gluing them, using the pin registration thing to keep all the puzzle pieces oriented as they go together...then once it's all glued up all that is left is to take the ridges off.

It might seem overkill for a one off experimental deal but especially if you are using expensive marine grade materials it could be a substantial savings both in materials and labor...and if you wanted to do the work, you could also selectively remove interior material for even greater weight savings over a monolithic block of foam.

I'd suggest that anyone interested in this type of construction look to surfboard shaping and manufacture, not just foam/wooden stringer type modern boards but also earlier balsa and redwood boards that were not just planks but very sophisticated assemblies of separate elements that use integral voids that help with overall weight, weight distribution, tuning of rigidity, etc.

This is an extreme example, but illustrates what I'm talking about-

[http://www.tpsurf.com/tp230/large/L-113\\_1310.jpg](http://www.tpsurf.com/tp230/large/L-113_1310.jpg)

note that you can orient the plane of the sheets vertically or horizontally...and you can mix the two as well. You can also bury all manner of reinforcement inside the foam plug- even a single layer of FG cloth/resin between two sheets will stiffen the entire structure a lot, and by cutting in channels that allow the glass to deform when it is being wetted out, a lamination like that can form internal stringers and ribs that are much like the stamped shapes in car floors and pickup truck beds that add rigidity.

**Frank**

February 4, 2013

Hi Stefano – It's not nearly as much of a "fight" to get the foam stuck to the flat wood bottom or to itself. The bottom of my boat had only about 1.5" of rocker over the 24', so the foam in 8' long piece took the curves very easily. I'd use PL Premium to glue the first layer of foam to the ply "false" bottom of the boat. Then I'd put weight on it until it was set (6-8 hours), and then the contact cement will hold the subsequent layers together simply by contact, with no weight needed.

Shaping the foam is much trickier than installing it. Did you look at the pages on my web site? They give a pretty good overall explanation of the process and sequence. I would not be in a hurry to do it again, as it is VERY exacting and I'm a bit too lazy to do much more of that. It's more art than science, but keeping it both fair and symmetrical is a bit of a challenge.

Details at <http://www.diy-tris.com/2012/10-24-footer.htm>

Cheers – Frank

**Frank**

February 4, 2013

The foam really isn't all that expensive, and yes, the pieces were cut roughly to size before installation. Positioning dowells are simply not necessary, would constantly be in the way, and would have to have the holes filled later on.

Have you been to the site to see how I actually did it? I can't imagine a simpler or less wasteful approach. The whole idea of pins and registration is not only unnecessary, but would add time and labor that need not be spent with the much simpler method I used.

- Frank

**ian**

February 6, 2013

Didn't mean to step on anyone's toes- and I certainly didn't at all mean to imply that there was anything wrong with doing it simply...just saying that there are a number of ways to build a foam cored structure, that can address things like structural rigidity and the need for extra framing, or can save shaping time, weight, money if you are using very expensive materials, add some desired functionality or extra safety margins, etc.

There are a lot of overlapping industrial applications with well developed technologies for doing this type of structure that as I said may or may not be overkill for any particular project or budget...but even something like a hot wire used to cut high tech composite aircraft wing cores is dirt simple to DIY as technology goes, so taking advantage of the technology \*if you need/want to\* is not as involved as it might seem and there are all manner of very simple foam shaping and covering tricks and tools used by surfboard shapers and aircraft builders and sculptors and sign makers and auto body people that are out there, should anyone care to look them up...and my saying so is only intended to add to the reference base here, not take anything away from anyone's personal experience or cast aspersions on their creations.

My main point was that with sheet foam you can do the shaping work on a big block after assembly \*or\* sheet by sheet, and I never intended to give the impression that one was better or worse, and of course there are pros and cons to both. Same goes with refining the plug assembly process to add layers of reinforcement fabric or a stringer or backing plate in a glue up \*\*that you are doing anyway\*\*- that kind of addition can do amazing things for the strength and stability of the structure both during machining and in use, with hardly any addition in time or complexity or cost considering the final benefits- remember, the assembly labor happens whether or not you insert the extra goodies or not.

Simply stacking some sheets at right angles and laying some glass cloth or plywood in the glue up can create longitudinally oriented internal box and I-beams in a foam plug, out of nothing but a few extra cuts through some foam and a few bucks in reinforcement materials, were someone to be concerned about overall rigidity or wanted to fine tune it. If someone wants to do selective removal of internal areas of the plug sheet-by-sheet or add stringers or cockpit drain plumbing or something where they needed to disassemble and re-stack and finally glue things with great accuracy, the time and labor to set up the pin registration is that needed to get a dowel, and ram it through a stack of foam sheets where it won't get in your way, or take it out when it does...this is garage tech, not NASA.

Whether or not it is worth the effort or "needed" is totally a matter of subjective assessment by the builder and I'm not questioning anyone's particular choices, just pointing out that the real beauty of working with sheet foam is that there are so many options on putting it together and covering it that have so many benefits to exploit should one decide he needs or simply wants to do so.

Not that anyone \*has\* to use them or \*should\*, but they are out there and while I'm all for simplicity, sometimes other factors take precedence and the simplest or quickest method isn't necessarily the best for everyone or every application.

**Small Tri Guy**

February 6, 2013

It's all good Ian :-)

**Stefano**

February 9, 2013

to Ian... I am curious about hot wire links for shaping without too much dust...any hints for the database records ? Thanks in advance, Stefano

**ian**

February 10, 2013

Hi Stefano-

There's a number of sites that go into the technical aspects of setting up a cutter, which is essentially a high resistance wire that heats up without burning up when a current is applied...it's an easy DIY but it is \*extremely\* important to understand that done improperly such a rig can kill you by electrocution, so be careful and only try it if you know what you are doing with electricity.

Anyway, here's a basic "bandsaw" style setup -

[http://www.spacemodeling.org/new/how\\_to/foam\\_cutter.htm](http://www.spacemodeling.org/new/how_to/foam_cutter.htm)

and one with a hand held frame that would be better suited to free form cutting of large shapes-

<http://www.public.iastate.edu/~orman/air/cutter/hotwire.html>

here's some commercially available tools-

<http://hotwirefoamfactory.com/home.php>

I can't attest to the suitability or ultimate safety of the electrical portions of those DIY designs or to the quality of the commercial stuff, but I can say that even with a commercially built unit it will take some practice and fine adjustments to get everything running really smoothly at any particular feed rate...when everything runs right you can get incredibly accurate cuts even over long spans, but too little heat or too fast a feed can cause the wire to distort or even break due to drag and/or getting glued in place by melted material cooling in the kerf before the (too slow) wire gets past it.

The opposite situation of too much heat or too slow a feed rate can cause more ragged cuts and re-adhesion of the cut parts due to globbing/pooling of extra melted material, and larger kerfs that decrease accuracy.

The trick is to keep the kerf thin enough for smoothness and accuracy, but not let any of the waste material get re-bonded to the shape you are cutting either because the kerf is too narrow (wire too small or cold) or because you melted out too much material and it bridges the gap (wire too hot or slow).

Also, keep in mind that the longer the span you are cutting, the more you will have issues with keeping uniform heat across the cut using smaller wires, as well as issues with tension and keeping the wire from bowing and running off track...at some point you need to almost build or modify the system for the particular cuts you need to make, rather than developing a one size fits all carving tool.

The cut and operation is probably most like a band saw, if the blade were to be a laser beam instead of metal- you can move it in any direction perpendicular to the wire and cut things like letters and 90 ° angles without having to reorient the workpiece as you cut, the way to have to with toothed saws.

One neat trick is to use heat resistant templates that define the edges/ends of the profile you are cutting, that are lightly attached to the plug and act as guides for the hot wire-this is how multiples of things like lettering and tapered airfoil cores are cut, and strategically placed hard layers in a sheet foam plug lamination could be pre-shaped in a similar manner, so that they acted as templates to guide a cutting wire. It would be a lot of setup work up front in exchange for minimal carving at the end, but could give you far greater accuracy than less technical machining, plus surfaces that require little or no extra sanding or fairing.

This is more or a strip planked on frame core, but shows the kind of technical detail and integrated sub-structure that can be shaped in a sheet foam core with very simple hand tools-

[http://hotwirefoamfactory.com/customer/gallery/industrial\\_davel\\_b.htm](http://hotwirefoamfactory.com/customer/gallery/industrial_davel_b.htm)

even though that shape is formed by bending strips over a frame, you can see that it could also be built up in flat layers oriented horizontally, vertically or in combination and the curves could be pre-cut rather than bent...the sections can even run athwartships-

[http://hotwirefoamfactory.com/customer/gallery/industrial\\_karap.htm](http://hotwirefoamfactory.com/customer/gallery/industrial_karap.htm)

Doing an entire hull that way would be a lot of work if you don't have a CNC wire cutter, but one place where the technique might be very useful is in creating concave hull sections that might be difficult or impossible to cut in an accurate single pass with a wire...think something like a very flared powerboat bow shape or bilge turn.

To do something like that wouldn't even require orienting the cuts for the entire plug that way, and various tricky curves or areas that need great accuracy can be shaped as sub assemblies and combined with less technical shaping methods where those make more sense or where there would be little benefit to using the wire. Very detailed molds and plugs for lost foam and concrete casting are often made this way.

Speaking of lost foam, while it is traditionally used with hot metal casting, you can also use a foam plug as a basis for a laminated shape and then use solvent to eat away the foam leaving a shell...not an everyday need and exceedingly toxic, but it just goes to show you how many ways you can manipulate this stuff with simple tools and tricks-

<http://www.rcgroups.com/forums/showthread.php?t=188980>

#### **Small Tri Guy**

February 11, 2013

Amazing info with links Ian!

**ian**

February 11, 2013

One other benefit of the wire technique is that it allows very precise shaping of a variety of foams that can be very difficult to machine accurately, like expanded polystyrene bead based foams that are super cheap but make a mess and don't hold much detail when cut and sanded. A hot wire makes EPS a very attractive material when it is probably the worst foam to work with using traditional tools and methods, except for the price.

Wire cutting can also create very detailed profiles the slick, soft/flexible polyethylene and polypropylene foams used in packaging, pool noodles and flotation devices, which in turn can be used in molding operations where you need a curved line or a press fit... they're stiff enough to take the pressures of molding without ever snapping, and even intricate undercuts can still be easily removed due to the material's bend-y, compressible and if you need it, easily tear out-able nature.

For something like damming off a hull and creating bulkheads, the compression allows for very tight seals with minimally accurate cut shapes...you can just put the slightly oversized sheet foam backer station form in with maybe some hot glue to keep it in place, lay up against it with no mold release needed, and then pull the foam out after it cures...and because the foam bends easily, that bulkhead form could be curved as well to add foot room or form an integrated back rest or tank wall.

Using that kind of foam and a hot wire after you are done molding hulls you could also do things like make custom fitted flotation elements or chafe guards, or integrated bumpers or seat padding out of the softer foams, all with high accuracy and little to no extra work needed to finish the parts.

#### **Frank**

February 11, 2013

I briefly considered hot wire forming for this foam hull, but very quickly realized that it was impractical for a such complex / compound shape and would ultimately have required much more effort than the approach I used, which was quick, simple, and accurate.

- Frank

**ian**

February 12, 2013

Hi Frank,

I totally get where you are coming from and agree that the wire cutting wouldn't have been much of a benefit in creating a single unit, unless you already had the tool at

your disposal and were going to use it to rough in the shape.

And even then, one other potential issue is that the cut from the wire forms a skin of sorts of melted material, that is harder and denser than the surrounding foam and can make integrating the wire cut portions of the shape with the virgin parts more difficult to do.

The end effect is like dealing with wood that has very hard and soft grain combined, where the pressure and time needed to sand through and shape the hard stuff can easily take away too much of the softer parts.

So you are absolutely right to be concerned about potential pitfalls and added effort that won't improve the boat; it's very possible to go there. The method you used is tried and true and the results speak for themselves.

One thing that I didn't see in your article was any description of the foam that you used as far as the actual material type and structure- compatibility with glues and resins is another piece of the puzzle when doing this kind of build, and some things work together well and some foams will self destruct the moment they come in contact with things like polyester resin...that's one advantage to the pricier marine/aircraft grade foams that are engineered for this kind of procedure, over things like insulation foam that isn't designed to do anything but sit there.

There's nearly always a work around (epoxy is pretty benign in this regard), but anyone considering this type of build needs to be aware that just slapping any old resin over any old foam can cause all of your hard shaping work to literally melt before your eyes.

Same goes for solvent based adhesives that can cause the mating surfaces to melt and actually draw away from each other...in your pics it appears that the foam you used is clad with a thin layer of plastic film and I'm wondering how that might have affected things like the adhesive selection/glue up and subsequent shaping- PL premium will definitely melt a lot of foams but something like the plastic or foil found on typical foam insulation panels might allow for more adhesive options by keeping the glue isolated from the foam itself.

#### **Frank**

February 13, 2013

PL Premium was created to be a construction adhesive. As such, it is quite compatible with all common foam types used in home construction – the blue stuff and the white stuff and the pink stuff. I have never seen it "melt" any kind of foam. Any plastic sheeting on the outside of the foam needs to be removed before using it in a sculpted hull, as it will interfere with both sanding and epoxy adhesion.

The downside of PL Premium is that it sets up harder than the foam, which leads to tearouts when shaping. If I had it all to do over again, I'd opt for some kind of contact cement.

#### **ian**

February 13, 2013

Hi Frank,

There are different formulations of PL and similar construction adhesives that are designed specifically for foam, that are water rather than solvent based or eliminate most of the solvents so as to not cause the foam to melt.

But the term "construction adhesive" on the tube does not in any way mean that one can safely assume that a product is compatible with foam, or any plastic for that matter. Trust me on this one.

<http://www.halloweenforum.com/halloween-props/78945-liquid-nails-ate-my-homework.html>

PL has a product specifically designed for foam insulation board with one of the listed features being "Foamboard compatible -Will not attack or burn through foamboard (if used as directed)."

[http://www.loctiteproducts.com/p/pl\\_ca\\_300\\_voc/features/Loctite-PL-300-VOC-Foamboard-Adhesive.htm](http://www.loctiteproducts.com/p/pl_ca_300_voc/features/Loctite-PL-300-VOC-Foamboard-Adhesive.htm)

The regular PL premium may work fine for certain applications, but they specifically don't recommend it for use on certain plastic-

Not Recommended For

Water submersion applications

Polystyrene, polyethylene or polypropylene

Plastic Tub Surrounds

Certain materials such as rubbers and plastics may have bonding difficulties; test before use

[http://www.loctiteproducts.com/p/pl\\_ca\\_prem/overview/Loctite-PL-Premium-Polyurethane-Construction-Adhesive.htm](http://www.loctiteproducts.com/p/pl_ca_prem/overview/Loctite-PL-Premium-Polyurethane-Construction-Adhesive.htm)

again, not knocking any particular product or method and I'm all about using the wrong tool for the right job...I'm just pointing out that there are a few pitfalls to be aware of when working with foam and covering it...as more and more products go low VOC it will become less of an issue, but the fact that PL and others still make foam specific adhesives tells me that non-compatibility is still something to consider when choosing materials...

one other thing to consider is that an adhesive may have very different results with foam depending on how easily any trapped solvents can escape- if the joint is relatively small and open you are less likely to have issues, but in something like a sheet lamination where those solvents can get trapped, the added exposure time can present issues.

Even some low VOC glues still have enough solvents in them to do this, so testing is the key, as is ventilation when using the stuff not just for health and fire safety but to keep the VOC concentrations low.



So- just be careful...or don't :)

<http://www.youtube.com/watch?v=aqomKnvF2Uk>

**ian**

February 13, 2013

For what it's worth-

Most open cell foams and some closed cell varieties can be glued with water based wood glues like Elmer's, Titebond, etc. and the bond will be *\*very\** aggressive.

You can also get a contact cement like bonding action with these glues by applying them in a similar manner; coat both surfaces, allow to dry slightly (not as long as contact cement though) and then press them together.

It might need extra clamping until cured if you are bending the sheets to pre-shape your plug, but the final bond is super strong due to the fact that these glues excel on porous surfaces.

The other big benefit is that you don't have to worry about your covering resin getting into the seams and loosening the exposed glue joints in the lamination before the covering hardens. You may never have had this type of plug begin to come apart when the resin is applied and softens up the glue joints, but it *\*can\** happen...again, trust me on this one.

**robert long island**

April 1, 2013

hi Frank, sorry to bother you here, when I clicked on your email at your website it wouldn't go thru (my end, not computer effective)...anyway would like to try and build one of these, do you really think a novice can build one? seems like many tools needed (although basic)...probably take me ten years! Robert - pestpro77 AT yahoo DOT com

# Sailing the Everglades Challenge for a Good Cause

February 7, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Everglades Challenge, sailbird trimaran

No Comments

# Dalliance – A Self-Designed Micro-Cruising Trimaran

February 7, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: camp cruiser boat, camp cruiser sailboat, Dalliance trimaran, micro cruiser

## Comments

**Dan**

February 7, 2013

Great job and story! I've loved your boat since day 1 when photos sneaked on the web. Do you have any detail shots of the seating, the hatch, and interior?

Dan

**Ron Falkey**

February 7, 2013

Dan, thanks! I have tried to take interior photos, but have not had any success just yet. Without a wide angle camera, and a small cabin, I am simple not able to get a photo that shows the layout. I am heading out on another WCTSS Cruise next weekend and if possible, I will see if I can talk someone into taking some GoPro/Fish-eye lens photos. But the interior is nothing lavish, the sauna and walk-in fridge had to be cut from the final plans ;)

Would you be the same Dan as dstgean as I've seen posting on Proafiles and who created the trimaran version of Gary Dierking's Ulua?

**ian**

February 8, 2013

I too would like to see any cockpit details and/or hear how the centralized layout works in real life use...I assume that the narrow stern area is kept mostly empty?

I know from having attempted it that drawing up a design like this with enough room to lay down inside is tough enough with a traditional rear cockpit, let alone a center cockpit...so that alone is a pretty neat trick.

But to do it and still keep the entire cockpit area within the confines of a canoe type hull's beam would seem impossible without it being a strictly one person affair...I totally get why cruising boats have small tucked in cockpits and there's nothing wrong with a singlehanded cruiser- I'd just be interested to know if the designer thinks that some deck overhang that would allow more cockpit room would seriously detract from the boat's comfort/safety margins, or if he's had any experiences where he felt that a larger or more open cockpit or that type of overhang or counter stern might have been an immediate problem.

Anyway, it's a very nice looking package that appears capable of far more extreme sea handling than one would expect in typical weekend/coastal conditions...but then again, the reality is that coastal cruising often presents far more immediate dangers than being offshore does.

**Dan**

February 9, 2013

I'll be down in Sanibel over Spring break at my father and mother in laws. It would be fun to see your boat and talek microcruising multihulls. We are member of a small fraternity here!

Dan

**Ron**

February 9, 2013

Ian (et. al),

Thanks for your interest and kind eords.

About the stern section, you are nearly correct; the stern section does remain mostly empty while sailing. That is where I keep my "pool float" foam matertress, sleeping bag and such stached out of the way during the day. After it is time to turn in for the night, that is where I lay down - feet aft whith my head under the open (or closed plexiglass hatch) with a great view of the mast, stars and whatever else is in the night sky.

Of course the helmsman seat, comprised of a folding bench topped with a West Marine folding go-anywhere seat, collapse and get stowed out of the way.

Dalliance is set up sysmetrically fore and aft, as well as port and starboard. There are five bulkheads, but for terms of cabin layout, there are only three, since the fore and aft most bulkheads corrden off two 24" long floatation voids at either extreme. The central bulkhead is not a full frame, with a max web depth of 6" and a 24" passage width where it rises from the cabin sole/lower panel bottom chime. The forward and aft cabin bulkheads are about 35" in front and behind the center bulkhead, but there are cut outs at the cabin sole to allow me crawl forward and aft — and stretch out both forward and aft (if I can resist toting along to much "just-in-case" stuff).

Theoretically, I can sleep two below decks, but it would be very tight; and because my wife is not a sailor, and has already had surgery associated with too much sun exposure, she is pleased to let me have my own time on the boat while she minds the home front.

Inside the cabin there are two drop-down table tops. One is located on the aft side of the forward bulkhead, and typically get used in cold and inclement weather. I use the folding helmsman seat to set on the cabin sole to sit at the table, or simply lounge and read out of the weather or mosquito infested nights. The other table drops down at the helmsman's seat. It is used both while moored and underway, when it becomes my snack holder and Nav station.

I had thought about a flared or overhanging cabin or cockpit, but not for this boat. I was trying to keep the BOA for the 1st iteration of Dallance to 6 foot or less to slip between two trees as rolling it up the side yard to it back yard morning. Ray Kendrick's Scarab 16 is an interesting design you might be interested in if you (like me) are content with a tight fitting smaller boat (<http://www.teamscarab.com.au/scarab16/design.html> and all his plans are currently on sale for \$150 each). Being the kind of guy I

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

am, I have been noodling around with sketches that stretch the 16 out to 17 or 18 feet, and add an aft cabin with a conservative two to three person center cockpit. Our you can just jump up in size (as well as cost and complexity) to the Scrab 18 that is a very sweet and seemingly refined design. You might want to visit Ray's website.

Regards,  
Ron

**Ron**

February 9, 2013

Dan, it is good to connect with you. You and your boats have been one of many points of light the lite the way to small boating for me. I first encountered your name in Gary's book, "Building Outrigger Sailing Canoes" and your stretched Ulua on page 14. I see that you put it up for sale – that doesn't mean you're without a boat does it?

I would love to meet you for real; and perhaps this spring that might work out. Besides Cedar Key in May, I am also trying to get away from work for the WCTSS spring get-away March 15, 16, 17 to Cayo Costa State Park in the vicinity of Sanibel.

Maybe we can get together around that.

**ian**

February 9, 2013

Hi Ron,

Thanks for the detailed response...am I correct in assuming that first partial frame forward of the the aft watertight bulkhead aligns with the back end of the cockpit area proper, and that the center bulkhead forms the front and is located somewhere just behind the main cabin windows where it would be on similar center cockpit layouts? making the opening roughly 35" long x the beam at that point?

That would make sense but what is hard to see is how the area below the cabin line is treated and how the various sections of the boat seal off when you say-

"The central bulkhead is not a full frame, with a max web depth of 6? and a 24? passage width where it rises from the cabin sole/lower panel bottom chime"

-I am not sure if this means that the open vertical passage area runs all the way to a cabin sole/cockpit floor that runs full length between the two outermost bulkheads- a very well protected but essentially open design, or if there is some raised section of that bulkhead above the cabin sole at that point (or a traditional deck/foot well) that creates a dam to compartmentalize any shipped water and forms a separate cockpit and allows the cabin area to be sealed off?

I'm just having a hard time visualizing it, as it sounds as if you are laying down in back on or near the cabin sole but are inside a sealable envelope and not just sleeping in the open cockpit- but the available pics don't give a lot of clues and there's obviously not a lot of room to put a deck or foot well \*and\* be able to squeeze underneath.

I like the Scarab designs and the overhanging deck/cabin treatments are pretty straightforward and seem sensible...interior volume that adds reserve buoyancy is hard to not like, but besides your specific space needs your boat seems more oriented towards an elevated degree of endurance in less than perfect offshore conditions, and very flat areas like overhanging cockpit seats or cabins can not just slap hard in a seaway and help jar things apart, any sudden shift in the boats buoyancy centers as they engage with rising and falling waves can introduce some pretty significant forces when the waves are big enough to do that, forces that might move in ways that no one could really anticipate.

The Scarab seems like they had that in mind and even with the open transom it would likely do fairly well if things got snotty on a short passage, but I'd pick your layout if I was going to be exposed to real open ocean stuff or was making coastal passages where the weather regularly got ugly.

Or put another way- the Scarab would be perfect for sailing down the west coast of Baja, but I'd want your boat for clawing back up it.

**Dan**

February 10, 2013

Ron,

yeah, I'm dstgean as in Dan St. Gean-work email psuedonym. I did in fact sell my Ulua to Pete from Philly. I'm not boatless though. Messing about with Gary dierking's Tamanu presently. Not sure if I'm going to stick with my present push to go double Tamanu cat-I'm set up to do that right now, or go trimaran & build a purpose built overgrown beachcat. With 3 kids now, I've been out fo the cruising game for 2+ years, but would like to get out soon. As far as the Wcetts event, I'll be down in Sanibel over Spring Break the last week in March. I'll just miss you. However, I will be driving, so I might just be able so swing over to your direction if it is at all convenient. I had a chance to do the same with Frank Smoot last year in June.

Dan

**Mark Gumprecht**

February 15, 2013

Hi Ron,

The new amas look great! She must be a different boat now. I wish I could get down there for the small boat get togethers, but it's too long a drive.

Mark

Gypsy Wind

**Ron Falkey**

February 17, 2013

Ian,

Sorry for the slow response. Thank you for the very nice thoughts and words about my boat. From your participation on Small Trimarans its obviously you know a lot about various

You said "I'm just having a hard time visualizing it"; I guess that is because Dalliance does not have a traditional cockpit. It is more like the arrangement on Matt Layden's Paradox where the cabin also doubles as the cockpit, or like the cabin/cockpit of the Evergreen 6 catamaran, a design I admire despite the fact that for this site, it has one too few hulls ([http://www.proafile.com/archive/article/evergreen\\_a\\_fast\\_expedition\\_sailboat](http://www.proafile.com/archive/article/evergreen_a_fast_expedition_sailboat)). With Dri-Deck panels lining the cabinsole I can take a reasonable (but not bountiful) amount of rain/splash without putting a damper on on life below deck.

I'll try to get a photo or drawing or two posted to DropBox to help with the visualization. When I do I'll post a link here.

**Ron Falkey**

February 17, 2013

Mark,

Thanks! The new amas, and now the improved akas, really do make her a different boat. I am pleased with the way she now assembles for launch, handles, and with their 150% displacement I no longer have to scamper from one wing net to the other to keep those old undersized amas from pretending to be torpedoes. When they would start to zip along below the surface it certainly retched up the pucker factor.

I followed your build of Gypsy Wind and think you did a fantastic job both in the design and the execution! I have been looking around some more information on how well she performs at the usual boating sites. Is there somewhere we might go to find any post launch data, or maybe you can be talked into providing Joe with some photos and data. I do not know where you live, but it would be most welcome to meet you and get to see Gypsy Wind. Too bad Cedar Key or the Florida 120 are out of range.

**Ron Falkey**

February 17, 2013

Dan,

If you can get over to the Tallahassee area after your Spring break trip to Sanibel a visit would be most welcome!

**ian**

February 17, 2013

Hi Ron,

Thanks for the response; I'd love to see any interior or cockpit detail pics you might post, but I think I've got the basic idea now and it's a sort of partially decked/partially open cockpit affair...

it's an interesting solution for a cruising setup and very practical- having the reserve safety of a more or less watertight capsule to get inside in bad weather is good for morale but in real life cruising, having a way to secure your stuff when you are nowhere near the boat is a more common reality and that kind of big barn door-like hatch that closes everything off is a nice way to do it.

I've played around with similar sized design ideas and another option is a two piece hatch where one portion slides aft...it's one way to get a longer opening on a tiny boat with minimal space, where a large one piece hatch would hit the mast.

Especially with a very narrow canoe sterned main hull, that aft of the cockpit deck area will be mostly unused as working space so it's a good place to slide a hatch section, and that section could even become a deck area in its own right when the cockpit "doors" are fully open if you extended the rails straight back in some sort of rigid framework (like a boomkin)...you could have a sort of a sliding deck overhang without the extra weight of a deck \*and\* a hatch.

A hinged forward section is another "convertible" idea I've seen, where the forward hatch section forms an angled coaming or windscreen shape as it tilts forward, or stows in an accordion fashion for a bigger open area.

The ability to batten things down completely underway is certainly a great benefit and the peace of mind thing is nothing to sneeze at, but in tiny cruisers like this I think the greater benefit is saving the weight of all that cockpit framing and decking and hatches, etc. so you can more quickly get out of conditions that might swamp you or would otherwise drive you down below to await your fate.

The big problem of course is that hatches and seating just don't scale down with the rest of the boat, so it really takes some doing to fit things in on something in this size range, and even when you \*do\* use the overhanging decks and hull bump outs a lot of the extra interior volume isn't very useable as living space.

**Dan**

February 18, 2013

Ron, I might just be able to do that. Tallahassee is out of the way, but it would be fun. Drop me a note at dstgean at yahoo dot com

**Stefano**

June 16, 2013

Hello. Great job and thanks for sharing all the details and insight. Would you share with other perspective self builders the design of alas and retractable akas ? Thank you in advance Stefano

**Ron Falkey**

June 20, 2013

Stefano,

Thanks for your interest and nice words. i am glad to shar (some might say over-share) information on the technical aspect of the design. I have posted some photos and design drawing from my project to convert to telescoping aka at the following URL:

<https://www.dropbox.com/sh/srdjar9zcs1gcak/xUzcTE6lt>

I am not sure how to post a non-photo file, so I will email the Carlson Hulls file, and the take-off tables I used to loft the bulkhead for the amas, to Joe to see if he might forward them on to you directly.

Even though I built a trimaran instead of the proa, I followed the original design specs from John Harris for the akas for Mbuli. That way, as long as kept the sail plan a bit more conservative than the Mbuli's 192 sq ft. I knew there would be no worry about structural issues. In the Mbuli the 12' of beam is cantilevered out one span from the main hull/vaka to the one ama, and in my tri each ama is 6' from the centerline to the outboard gunwale. The stresses are significantly reduced, and I confidently avoided the need for waterstays. In fact, it is quite likely the original demountable akas were well over engineered.

The plans called for 12' long 4" O.D aluminum tubes with 1/8" walls, and that is just what I started with — even for the minimal sized 198 pound displacement amas repurposed from my kayak trimaran, Oceanid. Then the akas continued to prove their capability with the new much larger and improved amas.

Then, for the telescoping akas I consulted my metal fabricator about the available sizes and material strengths. I ended up using one of the original 4" O.D. aka tubes as the central member for both the forward and rear aka assemblies. The outer portions were made from 3.5" aluminum pipe with 1/8" walls. Tubes are measured/sold by their Outside Diameters, whereas Pipes are measured/sold by their Inside Diameters. After having the tubes cut to length and the mounting brackets cut from 1/4" aluminum plate by a CNC waterjet,

I had the parts powder coated with a black industrial grade enameled finish. This left me with outer aka sections that slide into the central sections with just under a 1/4" clearance. I would have liked to have gotten down to an 1/8" or less clearance, but I just could not come up with standard sized, commercially available tubes or pipes to make that happen. To keep the outer sections from working/slapping inside the central sections, I created four series of thin wedges that are each strung together and tied around the outer section. They are made from black "Star Board" plastic, and span about 33% of the circumference of the outer sections. After the amas are pulled out to the full width sail positions, I drop in four large (1/2") stainless steel bolts into aligned holes in the port and starboard sides of the forward and rear aka assemblies; then I use a rubber mallet to drive the circularly strung wedges into the approx. 7/32" gaps. Then these are held solidly by four 4" SS worm drive hose clamps — which all is concealed under the tramps. Each tramps is a simple one piece trampoline fabric (purchased from Sail Rite) that is looped over around the forward and aft aka like a tank/bull dozer track, and laced together in the middle on the bottom side of the port and starboard tramps.

I hope these descriptions along with the photos make sense. But I know it is not easy to follow unless you are looking at it too. I won't take it personally if you don't get what I am trying to say.

Regards,

Ron

**Ron Falkey**

June 20, 2013

Stefano,

A couple of other things I meant to include in my previous post:

The new telescoping akas added 22 pounds total (11 pounds each) over the prior demountable aka configuration. That includes adding the eight new mounting brackets.

When fully extended, the outer sections still have just over 8" overlap inside the central sections.

Here is a link to some images of the ama construction, and some comparative photos between the old and the new amas.

[https://www.dropbox.com/gallery/34739351/1/Dalliance\\_Amas\\_II?h=86f1e5](https://www.dropbox.com/gallery/34739351/1/Dalliance_Amas_II?h=86f1e5)

**Ron F**

July 2, 2013

Stefano — I should add that the 8" overlap was supposed to be 10", but there was a mistake in making them. The metal fabricator ensured me that at 8" the joints have more than sufficient strength; and I have yet to disprove his informal professional assessment, hope I never do.

**Stefano**

July 3, 2013

Ron hello,

Thanks so much for "over sharing" :-)) that is what I needed. IT makes me willing to build again. I particularly appreciated the info on pipes and tubes... I miss the "OD aluminum" definition, which I might guess is "outside dimension" ??

We seem here to be better off with outer-inner tubes for better compatibility ( less gap). I would definitely appreciate if you could share the files of the amas. My mail is [stmoretto@alice.it](mailto:stmoretto@alice.it).

As for my five cents, I think that I will try to keep the rig rigid by anchoring the shrouds to the non extensible part of the akas and having waterstays at the same point. At 220 cm it would be the same span from which my catamaran mast was rescued from. Extra side strength would be added by diamond spreaders.

I would have gone at solving the gap between the sliding and fixed part of the akas with a simple series of 2 inch e glass tape set in epoxy. Sounds simpler to me.

In the magnum 21, the kas aare connected with the non extendible part for less than 8", and while the rig is substantially larger than yours, the akas are 70 or 80 mm if I recall correctly, so yours should be more than safe.

I would at last provide my shared part of experience pointing out that in some pics while at anchor your mast shows a tad of forward bending, probably due to excessive tension of the forward stay. If you tension more the staysail and get a standard backward curve, you may be able to correct the sail "fat" distribution (pulls it towards the mast where it belongs) and get as a bonus those few degrees of better windward pointing ability you were actually indicating as part of the wishlist for corrections.

Yours friendly, Stefano

**Stefano**

July 3, 2013

in previous comment please read "simple series of e glass rings"

**Ron F**

July 4, 2013

Stefano,

I will move further discussion, as well as copies of the Hulls file and take-offs, to email. But I do want to share with others (if anyone else is following this exchange) that I too was going to use the "simple series of e glass rings". However, because Dalliance was a progression, and not a fully thought out design concept from the start, there were issues in retro-fitting telescoping akas. Although I tried to execute a precise build, it turned out that the built in channels for the demountable akas were about a quarter inch out from being parallel (which equated to almost 1.5" difference in spacing between the two akas at their mounting points on the port & starboard amas. With the drop in, single piece cross beam akas that was not a problem. the akas were lashed in place and then the amas mounted and lashed to them. I simply had some minor asymmetry in the horizontal alignment, but the vertical alignment was good (or at least compensated for again when placing the individual mounting brackets on the outboard gunwales on the amas).

When I went to convert the demountable drop-in akas with telescoping ones, that slight offset in alignment caught up with me. I decided to not deconstruct and rebuild the aka channels in the main hull, and The extra slack/clearance between the inner and outer sections actually facilitates being able to telescope the akas. If the fit was snug, I would have had a significant rebuild project to get them to work.

I guess, to paraphrase the late Steven Covey, it is best to begin with the end in mind (if you can). Good luck on you project!

This is being sent from my iPad; I send an email after I get back to my computer.

**Steve**

March 29, 2014

Please send dropbox link for interior of this awesome micro cruising trimaran Dalliance. How much does she weigh?

Steve

# The Benefits of Trailing & Sailing Trimarans

February 17, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Ahoy Boats, Astus trimarans, Magnum trimarans, Stephen Walker

## Comments

### Wade Tarzia

February 19, 2013

Another example in the tradition of fat trimarans. Their "Virus Proas" were more interesting.

### ian

February 19, 2013

"wide" seems a better term than "fat" when describing this type of main hull...when viewed in section, the total frontal area and girth of this type of flat but shallow hull can be identical to that of a longer/skinnier/deeper one, possibly even less depending on overall dimensions.

As you scale sizes down, the long skinny displacement hull thing requires more draft to meet minimum static displacement requirements, as well as more freeboard to deal with wave action underway...compared to a wide flat hull a long/skinny vee'd or rounded one is slower to develop maximum flotation and resistance to further sinking both due to volume and the greater ability of a flat hull to generate dynamic lift, and in smaller boats that will encounter any kind of sea conditions this might actually require a shape that is "fatter" in the sense of having more girth, wetted surface, etc. to get some margin of safety and stay within the long/skinny format.

The main trade off is pounding, but there are ways to minimize that both in the design and operation of the boat...speed alone can do a lot to even it out, and I think in many cases when people are looking at flatter bottom hull and ama designs they are envisioning the kind of pounding that happens to heavier monohulls going into head-on seas, much of which is caused by the \*weight\* of the boat and inertia as it falls off the tops of waves/swells and that wave action is met and collides or combines with the pivoting forces of the rig and ballast keel when the boat reconnects with the water.

Combined with flat bottomed forward hull sections that kind of energy can literally tear boats and even ships apart, but when weight is minimal and the design/engineering is right you can drive a wide hull very quickly and even out the ride considerably in surprisingly large seas, with any truly dangerous situations being almost entirely attributable to operator error from just driving things too hard.

### Wayne

June 2, 2014

mmm ....

If wide, fat, is so great, then why does this wide and fat trimaran have the chine? Why not just enjoy the benefits of a wide body in the water?

All of that pounding must be great for the rig, the gear, the boat, and the captain and crew ....

;)

Wayne



# Still Using Wood to Achieve Dynamic Trimaran Hulls Shapes

February 24, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: trimaran servicing, trimaran supports, Wavelength 780 trimaran

## Comments

**Luca Z**

February 26, 2013

I Love this boat. Excellent wood work. One of the best looking cabin trimarans ever made.

# Summer Sailing in a Trimaran called Gypsy Wind

February 28, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: drifter 17 trimaran, Gypsy Wind trimaran, Mark Gumprecht

## Comments

**Dan**

February 28, 2013

Looks Great!

Dan

**ian**

February 28, 2013

Nice to see all that hard work paying off, and to see the concept get tested in real world conditions...even within the ranks of very dedicated cruising boats purchased or built for that purpose, it's astonishing how many of them never quite get past the "getting ready" stage, so just going anywhere is a big deal.

Speaking of real world conditions, this caught my attention-

"Having the deck overhang in the bow makes these small tris so much drier, and gives you more space on the bow when anchoring..."

This points out one big issue I have with many of the small tri designs I see, both DIY and commercial- namely that they pay little to no attention to crew movement or deck work.

I get the reasons behind certain design decisions like centralized seating, open wing areas with no deck overhangs, etc. but my gut tells me that a lot of the designers coming up with these boats are simply not considering the realities of operating in less than perfect conditions or are hamstrung by choosing design elements that may have no bearing on the actual conditions the boat will see (like kayak cockpits designed for hunting/fishing in arctic waters with no beaches or need to go on deck).

Anchoring is a great example- some may see it as something irrelevant to a non-cruiser, and they would be very, very wrong...regardless of any other uses, an anchor is safety gear and the ability to store and quickly and safely deploy one should be pretty high up the list of design priorities for any boat.

When you are standing in a tub that you can move around inside putting out an anchor is a no-brainer, but how do you do this when you are seated in a form fitting cockpit and the outside edge of your boat is 8-10 feet away in nearly all directions?

Even if you opt for a more traditional cockpit, how do you get to the bow of the main hull to drop anchor if it is so narrow and lacking in buoyancy that there's no space for a person to stand? Sure, you can set up remotely operated tackle, but what happens when it jams up?

What do you do when your chute or roller furling jib wraps up on the fore stay, which coincidentally never happens when there's light winds?

What do you do when some oblivious drunk in a Chris Craft is bearing down on you and your only options left are to fend off from the bow of one ama or bail out before you are ground into hamburger?

Even the best designed tris face the unique issue of the edges/corners of the boat being very far away from the cockpit and this makes getting to those edges and corners when you need to more difficult even in the best conditions...making it even more difficult by not providing any means of accessing those edges/corners seems short sighted at best and potentially catastrophic.

Same goes for simply assuming that "it will never happen".

That isn't to say that all small tris need solid decks or cabins or anything like that...but I have to laugh when I see small tris being offered up as very high tech, well thought out designs that are worth every penny of the tens of thousands being asked for them, but no provision \*whatsoever\* is made for being able to fend off when coming alongside a dock or for taking on passengers, and you can't quickly move outside of a tiny central area where you are a sitting duck while underway.

If the boat is intended as a pure racing or sport sailing vehicle then that trade off may be worth whatever gain there may be, but even when racing you have to have some safety margin and that basic margin should always be priority #1 on the list and having the ability to move around like on a normal boat doesn't necessarily mean lower overall performance.

As Mark points out, just the deck overhang itself makes the boat drier and quite often it's the crew that reaches its limits first when really driving a sailboat hard...in other words, something like a spray reducing deck overhang or just a solid section of trampoline that can act as a spray deflector might actually allow the crew to keep going when an allegedly slicker and sportier boat's crew is packing it in.

**josh**

March 1, 2013

I love this tri! I've been oogling this build since it was first posted on this site. I'm a teacher/timber-framer and have been entertaining a build notion for some time now. I get a bit tired of my wet H16 (I have camped with it before but it's a fiasco). This boat really exudes the cruising capacity I'm after. Great craftsman build! I'm awestruck! beautiful, beautiful boat.

**Mark Gumprecht**

March 2, 2013

Josh- Thanks so much for your kind comments! It's a lot of work designing and building boats like this, definitely a labor of love you might say. It much easier to cruise around when you can anchor out instead of camping on the beach, and it's hard to find places to camp that are not private property. Once I throw the anchor out, I can go down below and relax. Most places I've sailed, you usually get heavy dew at night, which can be a problem when camping in a tent. The inside of the boat is really cozy, with the varnished wood and big windows. Most of the modern foam and glass boats look like refrigerators inside. Wood is still the easiest material for the home builder.

**ian**

March 3, 2013

I'm curious if Mark can comment more on the mast and standing rigging, or point us to any information already online about the general layout and such.

It's hard to tell between the quality of the compressed video and lens distortion and all, but in the sailing video the rig seems to have a noticeable degree of movement independent from the hull structure in gusts...is this actually happening or is it just an optical illusion?

And if it is the former, is this an intentional choice intended to mitigate overloading the hull and beam structure, or just a minor shroud tension/tuning mis-adjustment or other bug that day?

I'm just curious about any details of the rig and especially the tang and chainplate locations and shroud/spreader geometry, since we don't see too many more or less traditional cabin tris of this size...similar but larger designs have in the past had issues with mast pumping and other unpleasantness, and a lot of it had to do with the loads involved in trying to keep things absolutely rigid, and the more rigid wing decks transferring loads to the rig rather than just bending slightly like tubes and laminated beams can.

The mast rake suggests some desire for bendability but like I say it's hard to tell just what's going on in the video...and in one pic at anchor I see diamond stays and upper shrouds but no lowers...is that the case?

**Small Tri Guy**

March 3, 2013

Here is a post about the mast Mark built for Gypsy Wind — <http://smalltrimarans.com/blog/?p=6282>

**Mark Gumprecht**

March 3, 2013

Hi Ian,

I do think the apparent movement of the rig in the video is some kind of camera distortion, as I have never observed it while sailing. It was an old camera, and edited from a bunch of short clips. The mast is a wooden wing mast of my own design, built out of 1/8" luan plywood and spruce, with fiberglass on the outside. It just has the main shrouds holding it up, with a wire luff in the jib, and with spreaders and diamond wires on the mast. The main shroud are 3/16" Vectran which attach to heavy duty eyestraps which are epoxy bonded to blocking in the deck with 1/4" ss bolts. I never can bring myself to bolt chainplates to the side of the hull, very functional, but ugly. The attachment point is about 3' aft of the the mast step. The Vectran probably has a little more give than ss wire, but I have never noticed the leeward shrouds having an unusual amount of slack. The winds that day weren't all that gusty. The diamond wires are 1/8" 1x19 ss wire, and the spreaders are raked back to load the mast forward, and counteract the pull aft of the mainsail. This is the typical setup used with rotating masts. No lower shrouds are used as they would restrict the rotation of the mast. The main shrouds only have to be tight enough to give reasonable forestay tension, and the diamond wires keep the mast straight. The structure of the boat and beams is very strong and rigid, and there is no movement there. I have been very pleased with the rig under all conditions. I really love having the two roller furling jibs. The forward sail is really a genoa, not a reacher, and can be used for going to weather in light winds. It's great to be able to select the sail size from the cockpit, and so much safer on these small boats.

**ian**

March 3, 2013

Thanks Joe and Mark for the extra details...one thing that is atypical or at least fairly uncommon in my experience on this type of rotating mast in smaller boats is that the forestay placement makes it more of a rigid masthead rig as opposed to a bendy fractional one, and requires the supporting shrouds to attach near the masthead as a result.

Besides any rule beating benefits that may have made it a good choice on any particular boat, the bendable raked fractional rig geometry allows higher main sheet tension to provide better forestay tension when you need it going to weather, while allowing that level of tension to be relaxed a bit off the wind when you don't which can make sail handling easier and helps prevent gear failure. The aft raked diamond stays then act like upper shrouds to support the upper mast section- they just don't attach to the boat proper, but back to the mast so that everything can rotate.

Many of these designs combine the forestay tang and the lower shroud tangs into one unit attached at the front of the mast that allows for rotating action without radical changes in shroud tension at the extremes. The forestay being attached below masthead height allows the upper mast section to bend fore/aft via sheet or running backstay tension without having to adjust shroud or forestay tension every time. Seen from the side, the bending action is like bending a spline against a nail, with the forestay/lower shroud tang being the unmoving nail everything bends around, and the mainsheet and boom being the force multiplying lever-

<http://www.wayfarer-international.org/WIT/race.related/SailShape.Trim.Care.Tuning/Als.Upwind.Tuning.Basics/mast.bend01.jpg>

Some larger rigs of this type use a "baby" stay to bend against (and to simply beef things up), and do have masthead height forestays but then the forestay tension needs to be adjusted when you bend it back and forth...the fractional rig can be made pretty passive.

It's an interesting approach that makes good use of a stayed mast's natural tendency to want to deform into a curve when you tension its standing rigging up and then start whipping it back and forth, by suggesting a beneficial path for the curve to take and then adjusting the engineering to deal with the deflection. The back to the mast diamond stay setup helps keep the side loads more in line with the mast itself and the strut placement similarly introduces a point around which a gentle curve to leeward can develop.

Another reason a bendy mast (rotating or not) with diamond stays and jumpers and such taking the place of more traditional spreaders is favored by a lot of racing boats is that it keeps the shrouds pretty well inboard and allows for really sheeting in jibs...this is an advantage on tris because it can help them point better, as can be the ability to really crank the mainsail flat without overloading things. It can also help off the wind by tucking the shrouds further out of the way of the boom.

If I'm getting what you and Joe's link tell me, it seems that you have also dealt with the bend tendency by essentially pre-loading the mast in a forward curve not unlike a strung bow, with the tips of the aft oriented struts being the finger tensioning the bow string, as it were. Then the only actual shroud connections to the boat itself run direct from masthead or thereabouts to their chainplates.

That's certainly a valid way of doing and I totally take you at your word that it's working fine, but I wonder what keeps the mast from deflecting when the rig is rotated to an off the wind position and it's sideways edge is now more of a leading edge and the diamond stays aren't oriented to prevent a different curve from forming as the unstayed center section of mast bends toward the bow?

Perhaps it's simply the overall strength of the spar/wing and maybe even the diamond stays could fail and it would stay rock solid...it obviously works and like anything else there is simply no one rig that is "best" for any particular boat or condition, they are all compromises. One way of dealing with the shifting loads on rotating spars that I've seen is allowing the spreader/strut to pivot to a more traditional 90° orientation to the mast as the mainsheet tension eases and the load vector shifts, and many non-rotating masts allow this action for maintaining even tension at different bend angles.

On very small boats like these the loads involved are usually not so immense that they present any grave danger that can't be anticipated, but one thing to consider for anyone wanting to experiment is that while pre-loaded spars allow for extreme light weight with minimal rigging, being pre-loaded they tend to fail spectacularly when things go south after too much extra load is applied, and they do it with far less warning since you are already closer to the failure inducing load point to begin with.

Bendy fractional rig masts are easy to blow out too and are not common at all on cruising boats, but at least you have something to let go of to let it get back to a minimal degree of tension, where a bow-like pre-tension is always there. The other consideration is that in the event that any mast pumping does occur- which is more likely with no direct to deck intermediate shroud connections between the mast step and mast head regardless of any pre-loading- that pumping action will be compounded when the force of the pumping aligns with the force of a pre-loaded spar trying to unload. Not impossible to deal with, but a consideration for anyone intending to really push things or be truly dependent on the rig staying up in a big blow. I've experienced severe mast pumping on both monohulls and multi's with standing rigging geometry issues and it can be truly frightening since it doesn't necessarily only happen in a major blow but still threatens to take the rig down or maybe even hole the boat with its own mast.

I guess the main point is that not all rig motion or deflection is bad, but some varieties are very, very bad and it is important to understand why when choosing or designing rigs...

Anyway, it's a gorgeous boat and a gorgeous stick and you clearly got the job done and it's very much a favorite of mine...thanks for taking the time to answer my questions.

**ian**

March 4, 2013

A couple of other quick questions if Mark happens to read this- is the gooseneck fitting and boom attachment scheme more or less traditional with a U-joint type action, or is it more rigid to help with the mast rotation the way some rotating mast dinghys like the Finn do it?

Also wondering how the rotation works in various conditions i.e. does it ever hang up or need help to re-orient in light airs, or does the rig need any kind of help to prevent it over rotating the wing mast to a less than ideal angle of attack when the wind picks up?

**Mark Gumprecht**

March 4, 2013

Hi Ian,

The gooseneck is ss u-joint I made attached to a short car that slides in u shaped ss track at the bottom of the mast. There is a 4 to 1 downhaul to tension the luff as I don't have a halyard winch. There is a rotator arm attached to the mast with a short line to an eye in the bottom of the boom to a cleat, which allows you to adjust the mast angle. Less angle going to weather, more off the wind. The mast just follows whatever the boom and sail are doing, no need to manually tack it. The mast rotates very freely on the delrin socket, and will rotate almost 90 degrees when off the wind.

If I had your e-mail address, I would be happy to send you some pictures.

**Small Tri Guy**

March 4, 2013

Mark, I will privately send you Ian's address.

**ian**

March 5, 2013

Thanks Joe and Mark for getting me the details...just in case others are interested, the classic Finn dinghy gooseneck setup I mentioned is illustrated here-

<http://classicfinn.org.uk/wp-content/uploads/2011/02/rigpage11.gif>

Note that the boom can be set to swing freely upwards for deeper mainsail draft in light airs and off the wind, but binds up in the up/down direction at 90° when sheet tension pulls it down, at which point the boom becomes a lever you can honk everything down flat with...something that becomes more and more necessary as speeds and apparent winds increase.

That force multiplying "kicker" lever system in the drawing allows that trim to be held independently of the main sheet-

"Initially Finns had no kicker, then it was found that a wedge in the boom slot held the boom down better and shortly after an adjustable wedge was devised, followed by a drum kicker winch which was common until the 70s. Nowadays custom levers are used but a drum or kicker lever (pointing upwards not down) are equally effective if

rigged well. Elvstrom realised the importance in the 40s of sheeting the boom outboard so almost all Finns have adjustable travellers. These requirements do not change between rigs so setting a newer rig on an older boat is not a real problem."

[http://classicfinn.org.uk/?page\\_id=27](http://classicfinn.org.uk/?page_id=27)

Otherwise the Finn gooseneck has no side to side rotational axis and the entire mast and boom rotate as one unit in response to wind and control forces...combined with the rig's bending/flattening ability, maintaining a boom down, flat leech trim is possible even when running and reaching-

<http://www.yachtsandyachting.com/photos/finn/yandy80937.jpg>

[http://farm3.static.flickr.com/2456/3605212548\\_333f213f17.jpg](http://farm3.static.flickr.com/2456/3605212548_333f213f17.jpg)

It's an interesting method of making the mast rotation and positioning as hands off as possible, and could still be used even with non-bending rotating rigs where the boom can swing freely up and down.

Also, here's a bit on the issue of handling the changing load vectors on the Finn's unstayed rotating mast as it reorients in off the wind conditions-

"In order to provide sufficient strength for running, the sideways stiffness must be approximately double the fore and aft stiffness. All Needlespar masts have this characteristic although some models achieve the relationship by shape (i.e. oval) and others by increase of wall thickness. The maximum wind force that can be captured by helmsman is clearly controlled by his weight and the stability of the boat, but when going to windward most helmsmen have to let the sail out or pinch a little higher into the wind when overpowered. Downwind with the helmsman sitting well aft to prevent the bow submerging there is roughly double the stability and control can be maintained again until overpowered by lack of weight.

The mast must be strong enough at deck level to resist a bending moment fore and aft when beating to windward and a larger bending moment downwind which is taken by the sideways shape of the spar as the rig is turned through 90 degrees for the running conditions. At deck level the shape needs to be twice as strong sideways as fore and aft, whilst at mid height the stiffness is equal and the mast can be circular. Towards the top the masts needs to be stiffer fore and aft than sideways.

If the engineering is correct a non technical sailor (and they are generally the fastest ones!) will look at the mast whilst racing and say it bends in a nice curve, This 'nice curve' has a constant radius - it is part of a circle and it means that the sailmaker can plan for a regular luff curve. It is a happy coincidence that the ideal engineering mast happens to bend with constant radius of curvature which is also ideal for sail control. It must be remembered that the chord of the sail varies from zero at the top to a maximum at the boom and this means that as the mast bends the sail fullness is progressively flattened from the top down towards the boom. It is therefore possible for a mast that bends in a constant radius of curvature to have one sail that works well in a wide range of wind speeds.

The Finn rig looks simple and elegant but is in fact a much more sophisticated aerodynamic arrangement than the conventional classes that have a mass of wires holding and controlling the mast."

[http://classicfinn.org.uk/?page\\_id=116](http://classicfinn.org.uk/?page_id=116)

Even though it's a smaller unstayed rig, there's a lot to be learned from the Finn and I think much of it could be particularly suitable for trimarans, where sail performance is a major limiting factor in overall speed potential.

**Mark Gumprecht**

March 5, 2013

Hi Ian,

I'm not sure why you go off on all these tangents that have nothing to do with the original post or information I sent you? One of the things I love about tris is with all that beam, you can have a real preventer and downhaul led out to the ama that allows you to do anything you want with sail shape and make it impossible to gybe the main.

**Small Tri Guy**

March 5, 2013

Hi Mark,

I've corresponded with Ian many times over the past couple of years and I believe his intention is to simply share helpful, and sometimes even "out-of-the-box" information with other readers. There are guys who may get some ideas from what you've accomplished and then take that knowledge in a bit of a "different direction." On a blog site, such as this one, it commonly happens. Social media developers refer to this as "adding to the conversation." I always enjoy seeing what guys like Ian come up with (in the way of other thoughts) or share with others (in the way of reference links from elsewhere on the web) that may or may not relate directly to the original concepts presented in the small trimaran post.

**ian**

March 5, 2013

Joe is 100% correct that my intention is to simply add to the information available which in the case of small trimarans is pretty slim in the context of sailboats in general.

I'm not here to make a name for myself or establish myself as any kind authority who isn't to be questioned; people are free to research anything I might say and correct me if I'm factually wrong...I have many decades of experience sailing/cruising and rigging/building boats of all kinds including square riggers but I'm also not here to get ranked on some scale of whose experience makes their commentary more worthy of attention and if people want to dismiss what I say out of hand because they don't like the way I say it, that's their prerogative.

This site has established itself as being one of the best repositories for this kind of information available, and almost any search for information about small tris will eventually lead here. That makes it a natural choice for anyone who might want to add to the general conversation and have it be worth the effort, so that (for example) someone who is interested in rotating masts who ends up on this thread gets more to chew on than just a single example.

The other thing I like about Joe's site is that he seems genuinely interested in the entirety of what is out there whether it be something directly related to small tris or is just something that might find some application in that realm or be worth knowing for a small tri enthusiast...he doesn't discriminate between power or sail, or racers or cruisers, or DIY vs. commercially built boats, or even small vs. large or even monohull vs. tri if it's potentially useful to small tri enthusiasts.

In that same sense he clearly understands that what might seem tangential or off topic at first glance could be very enlightening to those who can approach it with an open mind and are willing to look outside the box, who might have very different design or operational considerations than those that led to the final form or rigging of any particular boat being discussed.

In other words, no design is perfect as is for every person who might be a potential user, and every choice that a designer, builder and/or rigger makes has pros and cons that come with it that are worth knowing about if you want to make the best choice.

Frankly, I'm not sure why someone would get the least bit bent out of shape over someone simply acknowledging this (unless their contention is that their boat is in fact perfect as is and there is no room for improvement or alteration that might make it more appealing to another owner or for differing applications), and to be fair I \*did\* qualify the post about the Finn's rotating mast arrangement as being posted "just in case others are interested" in something that seems perfectly germane to a discussion about operating boats with rotating masts. Clearly you weren't.

I'm actually a potential builder/customer for exactly this kind of boat, and so it's doubly puzzling to get this kind of push back from someone ostensibly interested in having his designs embraced by potential builders/customers, for just asking questions and simply wondering aloud about alternatives to a single aspect of the overall design- a design that I've said more than once I really like.

# About Hull Shapes in Multihull Design

March 5, 2013

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: hull shapes, multihull design

## Comments

**ian**

March 5, 2013

Here's another nice example of the wealth of real world information about design considerations and how things interact that can be found on Shuttleworth's site-

"The rig is as large as we felt could possibly be carried without causing too much pitching and is compensated by the 29ft beam (making the boat almost square). Diagonal capsize over the leeward bow is a danger if the boat is driven close to the limit, and in fact, we did bury the bows in a race in Plymouth Sound while I was on the helm (we were trying to catch a Formula 40 in 35 knots of wind). We lifted the stern completely clear of the water, but the vital fact was that the boat rose straight up and because the buoyancy in all three hulls is very similar, there was no tendency for the boat to drop diagonally onto the downwind bow of the outrigger or to slew off course. This meant that bows did not bury very deep and the braking action of the rounded decks was relatively low, allowing the boat to recover very quickly. there is no doubt in my mind that three bows in line of similar volume is a good safety feature in a very wide trimaran design ."

<http://www.john-shuttleworth.com/Articles/shockwave.html>

# Very Unique Small Trimaran Approach

March 7, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: unique small trimaran hull

## Comments

**ian**

March 7, 2013

This is very exciting as far as being a logical extension of the general windsurfer concept, that really approaches the fixed rig with an eye towards optimizing the lift qualities that might significantly increase overall performance just by getting the sail oriented right-

"It always makes me chuckle to see a boat, usually a monohull, heeled way over trying to go fast with the drive vector pulling it mostly down into the water. "

agreed except that it's more than just one vector, and in many multihulls with traditional fore/aft rigs they just get translated into an endless cycle of the bows being weighted and unweighted as what is essentially one blade of a windmill tries to spin the boat in forwards somersaults.

This obviously spends energy to little gain and induces cyclical stress load spikes on the rig and requires larger rigs to compensate for the loss of efficiency, that in turn compound the problem in another endless loop.

I think many people forget that a ballasted keel in a monohull isn't just something that keeps you from being blown over sideways, it is a big factor in how those kinds of boats rotate on their transverse axis which translates to how they deal with swells and being overpowered in gusts, especially off the wind.

With all of it's good points- and there's lots of them- one glaring issue with the common marconi rig on a multihull is that that propeller-like forward motion is precisely what you don't need in a boat that has little static inertia due to light weight, is nearly as wide as it is long and has no fore/aft damping action from a ballast keel. Big headsails and high aspect mains definitely help balance this out and raking the forestay out in the manner of the fast planing skiffs can add a ton of lift. But the price is a taller rig and more weight aloft reinforcing the constant cartwheel action.

Even when it's engineered to work it still is applying one force against another and generating a lot of dynamic loads, where this type of sail rig applies the principles of balanced control surfaces and uses more of that available energy to not just go forward but to effectively unweight the bow and rotate the boat the opposite way from the marconi rig.

In a sense it's less of a sail and more of a kite, just a very shallow draft one on a very short and very rigid three point tether. Regardless of what you call it it makes tons of sense for multihulls and I'm looking forward to seeing the second part of the article and hopefully hearing more from the designer...

**ian**

March 7, 2013

this ties in to the whole long/skinny/deep vs shorter/fatter/flatter argument as well...one reason that long skinny hulls are suited to tris \*with fore/aft rigs\* is that they tend to resist the transverse "hobby horse" rotation described above without having to have wide sections in the ends for the needed volume.

That's one way to do it, but eliminating the fore/aft rig's forward pitching moment and moving the weight of the crew and the CoB aft can do it too using a shorter, flatter and lighter hull that can glide over waves while being tugged along like a child's pull toy, rather than being repeatedly swung into them like a hatchet.

**Steve Curtiss**

March 9, 2013

Hi Ian,

Thanks for your interest in the M3 article. You're right that the rig makes use of some fundamental windsurfer attributes to keep the boat from having the forward cartwheel effect. Windsurfers, when they get planing, move back on the board, tip the sail back, and keep the board a little lower in the stern, all of which help take the weight off the bow. When I was working on the design, I bought windsurfer magazines and measured a lot of photographs to see how the weight/position thing worked. In an earlier prototype I did get the weight a little too far aft and had to correct some for that. But given that I usually sailed in relatively low wave height conditions, the boat never had trouble with digging the bow in or pitchpoling. In heavier waves, I think maybe the needle bow might need more volume. I understand that some wave ski folks are moving to more bow flotation for those times when you don't make the right move surfing the wave face to the bottom.

Anyway, thanks for your comments.

**Wolfgang**

April 4, 2013

Hi Steve,

Congrats for your ingenious designs. Looking at the M3 gives me itchy fingers to produce something similar. Could you please publish some basic measures or sketches to help me and others on the way.

Thanks, Wolfgang

**Igor Feldblyum**

April 6, 2014

Hi Steve!

I am very much impressed with your trimarans. For a while already I was planning to make one using my old Mistral board as an "engine" (I think, I have same bord as you do). I am mostly done now, still working on rigging.



2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

I used to windsurf, but I cannot do it anymore, had an accident – an 90 foot free fall. But trimaran I should be able to handle.

I would appreciate very much if you could answer a few questions:

1. Your sail was fastened with a pivot at the top to the rear mast. How? What is the extension on the top of the rear mast is made of, and how is it connected to the rear mast?
2. Foldout rods on each side of the boom that pivot out to control the sail – how? Do they return to the boom as the sail swings, and than you catch one on the other side? how exactly are they constructed and how do they work?

Thank you in advance for your response.

Igor

**John**

August 22, 2014

How did the boat sail compared to a sailboard? How did it sail compared to a Laser?

I built 22ft, and a 20ft (Tornado center hull) trimarans with tiny planing amas and they are very quick in flat water. I also put 8ft amas on a Laser and in a blow could smoke regular Lasers upwind (even when the Lasers could sail flat). So I am thinking about something like the M3 with a canting rig for the next project.

Thanks for any thoughts.

**Steve Bird**

July 14, 2015

Hi Steve,

In the process of gathering info to build a 14 tri. I liked the planning idea of your tri M#. Started investigating and found some of the older plans, (Splinter, Manu, Zephyr, Victor Tchetchet tri design), and their claims of some pretty impressive speeds via planning.

Also liked your aft mounted mast. I had contacted Brian Eiland and looked into the references he provided on aft masts.

Would you please email me back.

Thanks in advance

Steve

# Circumnavigating Lake Michigan in a Dugout Trimaran Canoe

March 14, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: dugout canoe, dugout trimaran, trimaran canoe

## Comments

### Stefano

March 15, 2013

Hi guys... Guido Morandini, an Italian freelance documentarist working for Italian TV RAI, just completed a project called "spartiacque (shearwater)" in which he demonstrated how the marble for the Duomo in Milan was carried with small barges along the Po river down from the western Alps...fascinating. His next adventure will be documenting the trade of obsidian from small volcanic islands in the Tyrrhenian Sea to the coast to build tools in Paleolithic ages. He will be using a dugout canoe just completed that will probably be configured as a trimaran along the shapes of a present Kenyan dugout. I should be part of the test crew on Lake Bracciano near Rome and will report in early May.

For those interested in seeing sketches and pics of the dugout see "guido morandini" on Facebook.

PS I dig the dugout crew :-). Say hello to the gals!

### Small Tri Guy

March 16, 2013

Hi Stefano,

That is really neat. You better send me some photos man!!! No fooling. We want to see that thing :-)

### Wade Tarzia

March 18, 2013

I just read an ethnographic study of dugout canoes (called "longboats" by the Viking Ship Museum researchers) used in the rivers of Borneo. These are monohulls but are sometimes rafted up with crossbeams for certain load-carrying tasks, sometimes into "trimarans" to carry the dead to distant ritual locations. Here we see one model for the evolution of the dugout into the multihull.

### ian

March 18, 2013

I wonder sometimes if ancient builders/designers would have seen multihulls as a further advancement over the single dugout, or merely an imperfect adaptation used to deal with their shortcomings in the area of stability and load capacity, akin to putting a sidecar on a motorcycle.

Putting two hulls together with crossbeams is one of those things that a reasonably quick-witted person presented with a few logs and a design challenge would very likely consider even thousands of years ago...but considering the extra labor and materials involved in building multihulls it seems that being able to do a job with fewer hulls might have been considered an improvement to people with limited resources.

Obviously a single dugout had to come first and so multihulls evolved from there, but it's worth noting that despite the expanded stability and symmetry of the trimaran platform over other multihull types, it is probably the least represented multihull form as far as traditional ethnic boats go, while single outrigger canoes with extremely low volume amas are everywhere.

This suggests that perhaps once ancient designers had working craft that overcame the inherent stability problems of a log hull, they began to work on minimizing the additional structure and hulls rather than expanding them, and they weren't moving towards more and higher volume outriggers and wider footprints to generate more righting moment to counteract ever-increasing loads from bigger and bigger fore/aft rigs, which is now treated by many as a logical "evolution" in modern multihull design.

Not that there's anything wrong with going that route if you like, but things like J class sloops and plank-on-edge racers illustrate that that kind of evolution isn't necessarily an open-ended affair - extinction \*is\* possible.

So again, one is left to wonder - once someone saw how well a single outrigger worked, the next thing someone had to think was "more would be better" and so at least the idea for trimarans had to have come along pretty quickly, but it seems to have been mostly abandoned until recently.

### Wade Tarzia

March 19, 2013

Your hypothesis seems strong enough. Speculation about multihull evolution is, in general, an excellent scientific demonstration of the need for testing multiple alternative hypotheses. Perhaps the multihull had multi-lineal evolutionary tracks, but as cultures encountered each other and ideas were exchanged, the types of the multihull converged into a few 'natural selection' tested forms. Or perhaps the diffusion hypothesis is enough, because language data and genetics does support clearly the flow of culture and genes from west to east, and so the multihull could have had a unilineal evolution, though the physical data on boats is so concentrated in the historic period, we have no archaeological data to help us out about the boats.

I favor a synthesis of the two categories — some diffusion and unilineal inheritance and change of the multihull, and here and there, independent inventions and isolation for some period of time, until cultural convergence. Taking as a case the Borneo long-boats — clearly in the historic period, they used monohull dugout canoes for river navigation under both paddle and (lately) outboard (there are some coastal versions too for some ethnic groups). They sometimes raft them up for ritual transportation. They have also been known to make hasty rafts to get downstream after jungle resource collection expeditions. And finally, when the jungle floods in the wet season, they build bark-boats from a huge piece stripped from a tree and joined in the ends, to get out of the flooded, tree-planted areas.

This is an incredible diversity of watercraft, when you think about it. As a jungle-inland ethnic group (some of them) they could have been insulated from major ideas circulating out among the Pacific and Indian Ocean groups, and thus an example of independent invention. But that is not the strongest hypothesis, maybe, because boat people do get around, ideas do circulate, and the isolation of the jungle may be an illusion.

Yet sometimes you come across some example of a proto multihull far away from the Pacific — I think I saw a photo somewhere of a catamaran-dugout-canoe from Central Europe. Independent invention? Quite possibly. Or could have some European sailor who traveled the world, somehow gotten to this inland Central European place and told the natives about what he had seen? Maybe less likely, but the square-riggers certainly did represent also the invention of global communication.

Maybe that great site, "Ethnic Boats," has a photo of that European catamaran-dugout?

**Wade Tarzia**

March 19, 2013

PS: I am reminded of an idea that Jim Brown was chatting about, wherein one source of the evolution of multihulls was river-monohulls, of Asia, on which were attached bamboo spinnakers — shades of Joshua Slocum's dory-sampan-prototrimaran with which he and his family escaped shipwreck in South America? — but here the spinnakers were platforms to enable convenient paddling by the crew. I think you see something like this on traditional Japanese boats crewed with yuloh-power, but I may be wrong). These could then evolve into amas and akas. I thought this was a unique idea, since the evolution from dugouts lashed together or from logs substructured from simple rafts has been well discussed I would guess.

Of course, note an interesting unique evolution from a "multihull" (well, not quite) to a monohull — the Brazilian coastal fishing sailing-rafts, jangada, made from balsa logs, and adapted for efficient sailing. As the balsa forest becomes depleted, some builders have converted this design to plywood — the raft has become a raft-scow, sort of, with the same rig. Wooden Boat had an article about them a few years ago.

**ian**

March 20, 2013

Hi Wade,

Thanks for all of the great info and perspectives...I agree that there's probably a number of factors that have contributed to the development and spread of these designs, including many that we may not even consider very often like cultural and possibly even religious beliefs that might have made certain forms or elements favorable or forbidden.

It's just interesting to me from a tri standpoint because for all of their amazing early voyages to all corners of the world, I don't recall ever seeing a trimaran type vessel created by ancient Pacific islanders for serious offshore voyages, just a scattering of very small tris with logs or planks for amas, that don't appear to have had a ton of thought put into their ongoing development and are pretty tricky to handle by all accounts.

It's not hard to imagine polynesian contact accounting for the vinta in the Philippines or even the ngalawa in Tanzania, but the boats they were voyaging around on weren't very much like the vinta or ngalawa, or even outrigger canoes.

So yeah, plenty of room for speculation...maybe these non-Polynesian tris began as crude and ill informed attempts at replicating the big oceangoing catamarans that these visitors came in, or maybe in the manner of movie aliens capable of visiting Earth the Polynesians realized that the people they visited would only get themselves killed if handed the keys to such amazing technology, so they sold them on the much less demanding tri adaptation for canoes instead.

I still tend to think that the nature of boats (and aircraft) is such that they really don't tolerate or reward crazy design choices made on a whim...but they do tolerate and reward simplicity over complexity. That kind of design problem often results in completely unrelated people very far apart coming up with the same idea, because it's simply the answer to the riddle and there's really no other way to do it.

But then again we're left to wonder why other ancient seafaring peoples like the Vikings and Greeks and Eskimos and others would almost completely ignore the concept of multiple hulls except for rafting up...it is inconceivable to me that none of them ever thought of it, Polynesian contact or not.

**ian**

March 20, 2013

I've spent a fair amount of time in dugouts (in central america) and one thing to consider is that they roll in a very characteristic way...

there's little initial stability you can lean into like you can in a canoe with a flatter bottom, so like a log it really doesn't care which side is up...but also, the weight of a dugout is such that once that motion gets going it doesn't want to stop very fast.

So while stabilization is a goal, I think that perhaps a type of \*damping\* action to an otherwise traditional canoe might be the real point of the few ancient tri forms seen, as opposed to something intended to improve load capacity or create the kind of righting moment that a tri needs to be sailed without hiking.

**IvorTheEngine**

March 20, 2013

Ian wrote: "But then again we're left to wonder why other ancient seafaring peoples like the Vikings and Greeks and Eskimos and others would almost completely ignore the concept of multiple hulls except for rafting up."

I had this discussion with viking boat historian, and his opinion was that viking boats were primarily rowing boats, with sails for assistance down wind. It wouldn't have been worth using a fore'n'aft rig and leeboards to tack upwind when the crew could row it directly upwind faster. His other point was that they didn't have protected harbors and breakwaters, so the boats had to be pulled up rocky beaches.

I'm not entirely convinced, but here's the discussion:

[http://www.reddit.com/r/sailing/comments/1658dx/why\\_the\\_hell\\_not\\_iama\\_norwegian\\_guy\\_who\\_wrote\\_my/c7sukdw](http://www.reddit.com/r/sailing/comments/1658dx/why_the_hell_not_iama_norwegian_guy_who_wrote_my/c7sukdw)

**ian**

March 20, 2013

Hi Ivor,

Very interesting link and comments...at the point of Viking longships and such and the classical Greek military vessels, builders are also into what we now consider traditional plank on frame construction, which even with modern fasteners and sealants is a really poor choice for building a multihull ...at best it's a daunting and costly engineering and maintenance task.

Trimarans especially were hobbled by the prevailing construction methods until plywood came along and even now a lot of their further development is about implementing new materials rather than trying a lot of experiments with forms...so it's pretty easy to see why they wouldn't exactly take off in places devoted to planked boats built with hardwood timbers.

I'm not aware of a lot of agreed upon historical information relating to the pre- clinker days of Scandanavian and Greek/Phonician boat building and what their log canoes looked like...again, it is almost inconceivable that cultures that developed that level of naval architecture and construction that early on didn't start at some point with plain logs, then rafted and/or hollowed them out as soon as materials and tools to do it became available. If they rafted them at all, some guy spread his out if only to look cool, and so they must have at least tried some type of log multihull.

It's also interesting to consider the relation between rafts and multihulls Wade mentioned in the context of planked boats...pretty easy to see a three log raft as a kind of proto-trimaran, but if you consider a plank as a modified log then a planked construction kind of is too...so that a form like a sampan might be seen as the most basic trimaran possible, or a sort of missing link between a trimaran and a planked monohull-

"The word "sampan" comes from the original Cantonese term for the boats, ?? (sam pan), literally meaning "three planks".... The name referred to the hull design, which consists of a flat bottom (made from one plank) joined to two sides (the other two planks). The design closely resembles Western hard chine boats like the scow or punt."

<http://en.wikipedia.org/wiki/Sampan>

-difference of course is that the three "logs" are not spread apart but connect with seams to form a vessel that can displace more than the separate pieces- but it is still a logical progression from rafting to a displacement vessel and so straddles the line between raft, trimaran and displacement monuhull in a sense.

**ian**

March 20, 2013

Just thought I'd share some things I've run across while doing more research...worth a look for anyone interested in these early tri-

There's a small but nice vintage photo of another early dugout trimaran type from the Philippines here-

<http://www.boatsdepot.org/types-of-boats/bangca/>

some more examples including one with a log hull and bamboo raft amas-

<http://indigenousboats.blogspot.com/2011/07/philippine-bancas.html>

other types-

<http://indigenousboats.blogspot.com/2012/01/models-in-madrid-naval-museum-part-i.html>

lots of good Indonesian Jukung pictures and a lines plan here as well-

<http://www.mit.edu/people/robot/slopeng/index.html>

and this paper from an Australian perspective gets to some of the same ideas we've been discussing regarding double outriggers...FWIW, the "stick" ama connection method shown is nearly identical to that of the Tanzanian trimarans-

[http://www.jps.auckland.ac.nz/document/Volume\\_44\\_1935/Volume\\_44\\_No\\_173/The\\_chronology\\_of\\_Australian\\_watercraft\\_by\\_D\\_S\\_Davidson\\_p\\_1-16/p1](http://www.jps.auckland.ac.nz/document/Volume_44_1935/Volume_44_No_173/The_chronology_of_Australian_watercraft_by_D_S_Davidson_p_1-16/p1)

**Small Tri Guy**

March 20, 2013

Hey, great info guys. Terrific stuff. I may have to create a new post that primarily contains a few of these links that have been shared in this thread.

**Wade Tarzia**

March 20, 2013

All this reminds me that I sailed a sort of hybrid double-outrigger, called in the Phillipines, a paraw. My friend built one out of a Gary Dierking T2 hull, and he added two bamboo amas, approximately 6 inches in diameter, on elegant curving akas. We entered an Everglades Challenge, but had very bad luck, discovering a crack around a through-hull fitting and he had to abort the race.

But we sailed for a day on those two very skinny outriggers. They were "minimal volume" kinds of things, and I was greatly curious about what would happen. There are some great youtube videos of these spidery boats sailing. We had very light winds and we started the event under-powered (we carried a second larger sail stowed) because we really had had no experience on this "first expression" of a trimaran. We made very certain to balance our weight on the two tramp platforms strung between the two aft aka sets (the boat had three sets of akas).

When we got into shallows I tested the amas by pushing them down with by foot — I had no problem forcing them right under the water, and these were around 15-20 foot sections (the boat hull was 21 feet). I was surprised. But I suppose that when they are at the end of the akas, they have the lever-force to keep the canoe stable. It was a very different concept of the trimaran for me — too bad we did not get a chance to experience it in better wind.

# Links on the Development of Ancient Trimarans

March 21, 2013

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: ancient trimarans, historical development of trimarans

## Comments

**Wade Tarzia**

March 21, 2013

The argument that 'Viking-style ships were made for landings on rocky shores and that is why they did not invent outriggers' is not quite as strong as it might be. The Hawaiian outrigger canoes were among the ultimate surf-landing and rocky-shore boats. They were designed to maneuver in surf, their narrow dug-out hulls could be more easily put between two rocks if need be (the solid log outrigger, not to worry, it wouldn't be holed), and for very rough landings back home they used "canoe ladders," sailing the outriggers right up on to them (not without some danger).

The key to outrigger invention is lost to us because of the poor survival of wood in pacific environments, and also because of the way geological forces have toyed with coastlines, raising and lowering, and blurring the archaeological data, or just subtracting it from the record. A few tsunami-thrown boat parts have survived, buried in anaerobic mud beyond the immediate shore, but that is it, so far.

The invention could well be serendipity — some one used one in the Pacific, it was a great idea, and cultural imitation spread it.

Or perhaps it was the loss of materials that forced innovation (as is happening to western society now with electrics) — double-canoes could have been the norm until island environment degradation, when you go back to a single big hull and whatever you can find for an ama (and once you have a skinny log ama, it is best to always keep it to windward). This the single outrigger — whether shunter (proa) or tacker — is "the most boat for the least wood" and a very environment-friendly design for resource depletion.

I have been starting to read anthropology articles about the Pacific lately, and have been impressed with the fact that human expansion into that region goes so far back (possibly 40,000 years) along the littoral zones to what is now Australia that humans here have been intimate with the shore and had a chance to develop sea technology perhaps early than most other humans. This permits a tradition of knowledge to carry down.

Early human groups have advanced as estuarine adaptations, moving from river/marsh to river-marsh along a pristine (non human) coast. The adaptations may well have favored the kind of boat that can poke into rivers and creeks (perhaps the jungle-river boats of Asia and Indonesia (the 'long boats' I mentioned previously) are an example.

Some groups would need hybrid designs that could poke into marshes and also wider bays. I spoke to an Irish curraghman once and when I asked about stability, he mentioned that their long skinny oars helped out with that. You can imagine long poles (for poling!) being part of the estuarine watercraft adaptation, and where there is a long pole, there is an idea :) It is there to spark innovation with poles. No, I am not creating a hypothesis here, just a goofy case to illustrate the environment of 40,000 years of ideas in this region.

Other speculation is nothing new — we have heard it all, I suppose. Two unstable shallow-water adapted dugouts raft-up (for the same people who use canoes also think of rafts) for stability. They have paddles, harpoon shafts, even my mud-poles, to let them toy around with raft and catamaran innovations.

Perhaps they did this partly out of the custom of socialization, "Hey, come over, raft-up, and share this fish we caught!" For they would have been foraging (aka hunter-gather) societies back then (egalitarian, small groups, social units of around 30 people), and these groups are strongly socialized toward gathering at camp at the end of the day and sharing to redistribute the day's luck in food-finding. Never discount the human/social primate delight and need in forming groups, and how we do that in boats, and how that could spark adaptations in material artifacts.

At the same time, these groups are progressing into human-sterile territory in front of them. While there is worry of social conflicts ahead of them, there is also no strength in hope of social benefits ahead of them. The wavefront of human advance might be a kind of forward and back communication. Kin and potential mating partners are to your left (inland), behind you, but not ahead nor to your right (the sea). The boats insure a wider social network of contact for people at the human wavefront of pioneering, not just exploration ahead in the unknown.

Also the environment will not always be continuous but patchy — rich estuarine environments with less useful spaces between them. Thus boats that can be adapted to poking into creeks individually for efficient marine foraging but rafted up for coastal forays (ahead to new places, behind to known old places) for efficient and sometimes communal transportation might be a good hypothesis for the development of the efficient and flexible outrigger and/or single-to-double canoe idea in this unique area and situation. As the millennia passed, and water entrained in northern and southern ice flooded the world, the double canoe or raft was all ready to evolve for longer forays as landbridges disappeared.

**Frank**

March 21, 2013

Great post, Wade. One more factor I don't think has been mentioned: Because it was cold up north (in Europe), people needed to be able to have the option of being "in" their boats, for shelter, warmth, etc. This would pretty much mandate wider hulls, which would in turn preclude the need for outriggers.

But in the warm tropics, people could be "on" their boats rather than in them, which means hulls could easily be made narrow enough to be quicker through the water. This, of course, would require an outrigger of some sort to provide stability. And since two outriggers are better than one, the trimaran was a natural!

Also, in the absence of metal tools, Pacific islanders pretty much had to go with what they could easily fashion. And trees have the basic shape already half done!

– Frank ([www.DIY-Tris.com](http://www.DIY-Tris.com))

**Wade Tarzia**

March 21, 2013

Frank, very good, I had ignored that completely. My only comment here is that the rowing/paddling craft that preceded the deeper Viking ships may not have really offered a lot of protection.

The Bronze Age Hjortspring boat was sort of a wide canoe that was apparently paddled by its crew. Maybe some room to get down and rest out of the cold wind, but I have some doubt (if the crew is needed to push it forward in rough sea, then little chance for rest until shore?). But maybe even having your hips and legs inside a hull does provide some additional warmth that cannot be discounted.

(Hjortspring was a sewn-plank boat that in many ways does look like an independent invention of the what is called in Pacific tradition "the 5-part canoe" — the bottom dug-out log-keel, two side planks, and the stem/stern "filler" pieces. If there is any example of the general human mind finding similar solutions to the same problem, I would favor these two far-flung examples!)

Jumping up the late Iron Age (or late Roman period in Germany) we find the Nydam ship, taking on the lines of the Norse ships we know so well, though I believe this was keel-less (just a center plank). This was a rowing craft, and it seems to have an efficient hull for that, but does not seem to offer much protection for crew.

The Oseberg ship seems to have been a ritualized fjord sailor, rather low, but once we find the Skudelev ships and Gokstad, late in the Viking period, we see the deep hulls, especially for the "knarrs" which enabled those Icelandic and Greenlandic travels.

My point being, the ship tradition seems to not have begun on warm, deep boats though ended up there as the Norse started \*needing\* to cross larger bodies of water and stay out longer.

**ian**

March 21, 2013

One other interesting point that I believe was made in one of the articles linked (sorry I can't find the exact text at the moment) was that at least with larger oceangoing Pacific canoes, once landfall had been made the big cats would often be broken down into two individual hulls that would each be fitted with an outrigger for use in non-blue water passages.

So the intrinsic adaptability of these boats and the various elements used to create them may be playing a major role in obscuring a definitive timeline for how these various multihull forms evolved and were distributed- pretty much any of the various types being discussed can be fairly easily converted into one of the others, and back again...and that was being done very early on according to historians.

That tells me that almost anything could have happened once contact was made, because once you see and understand the general concept it's not that hard to envision the basic variations if you are really pondering things, and in at least some cases the islanders actually converted their boats into multiple types right there in front of the people they visited.

**ian**

March 21, 2013

About Wade's "goofy" oar/pole/stabilizer theory... no goofier than this-

one aspect of the Pacific islanders' ocean-centric lifestyle and legendary ability as watermen that I've never seen mentioned in depth in the context of early multihull development is the fact that these people also invented and developed surfing and surfboards in a huge way- it was a major cultural activity with all kinds of social and religious implications and they devoted a lot of time to it.

They sometimes rode larger boards standing up using paddles in flat water for propulsion...but on waves at higher speeds that blade could be oriented to act as a kind of stabilizing foil to lean on/against...

[http://adventuresportshub.com/wp-content/uploads/2011/11/sup\\_tahiti.jpg](http://adventuresportshub.com/wp-content/uploads/2011/11/sup_tahiti.jpg)

it also has the benefit of creating a drag/pivot point around which to turn a big heavy finless plank.

Even traditional non-paddle holding surfers do this with their hands all the time both in turns and when going straight, so that at any point when surfing they may be configured more like a proa with a lifting foil than a monohull-

<http://www.surfinside.com/Pic%27s%20Link/Surf%20report%20pics/2007/4-07/4-2/hand-drag-surf.jpg>

[http://www.cloud9surf.com/pictures/scott\\_02.jpg](http://www.cloud9surf.com/pictures/scott_02.jpg)

Not sure when the first modern hull testing flow tank was invented or when someone first ran a proa through it, but I know that an almost identical view as the one directly above was available to Pacific islanders as soon as they started surfing and got any good at it.

That's at least worth considering in the whole scheme of things- as well as the fact that many of the navigational tricks used by their navigators involved the same kind of attention to tides, currents and wave action along with triangulating off of landmarks and celestial bodies to read current speeds that all good surfers learn and use, and I've read that the better sailors were very adept at getting these big multihulls accelerating down/across the faces of big ocean swells and staying on them for extended periods.

I can't find any specific times or dates anywhere that might help place the development of surfing in its proper place in the context of Pacific islands watercraft development and distribution. My gut tells me that the paddle/surf board was probably a very early development whether they technically rode waves on them or not at the beginning, and certainly a lot of the development and spread of surf/paddle boards was concurrent with that of multihulls regardless of which came first.

Point is that any study of the whys and wherefores of Pacific islander naval architecture and concepts would seem incomplete without considering the wealth of knowledge they and the people they made contact with would have gotten about hull performance, planing, wave piercing, stabilization, material selection, etc. from

surfing.

This isn't much but at the very least it shows that there was a similar range of ancient surfboard types developed by very sophisticated thinkers-

<http://www.woods surfboards.com/ancient.htm>

**Wade Tarzia**

March 22, 2013

Very interesting. Makes me wonder how far back surfboards and stanp-up paddle boards go? The early ones were solid wood planks, right? I wonder if the evolution was from narrow rafts, watercraft fairly quick to assemble. A narrow raft might make a good marsh-hunting boat. And since it is fairly rugged to the extent that it cannot be holed and splintered like a time-intensive dug-out, I could imagine a narrow raft being surfed in small waves at the mouth of an estuary, far back in the human colonization of the Pacific regions.

I remember somebody somewhere defining what a "waterman" (waterperson?) was in terms of Hawaiian culture. The topics you brought up fit into that — the spectator of surfing probably does not know about the various other skills involved. I know nothing about it at all but for a book someone gave me, *The Wave*, an interesting for faintly sensationalist book about surfers seeking the biggest waves.

**Wade Tarzia**

March 22, 2013

By the bye, can anybody recommend to me any sound maritime ethnographic studies of rafts? I do not mean the experiments as done by Heyerdhal and Severin, but rather an article or book on use of rafts in established ethnic groups? I cannot remember having seen any.

Most developed indigenous boats seem to have been dug-outs and sewn-plank build-ups of dug-outs. I am curious about such things as under what conditions rafts seem to be the best adaptation to a given need. Is it the type of materials? The problem of longevity or lack of it of the build? Climate? (are rafts the wettest of boats thus true warm-weather technology?). The problem of keeping the wood at the right moisture content for longevity and buoyancy? (and for rafts, the issue of weight — you might need to keep rafts drying out all the time, but their weight might be prohibitive for beaching and carrying about high water, unlike a light(er) dugout).

(Aside: This reminds me of some very minimalist "boats" that my girlfriend photographed while on a trip through Ghana. They were paddled by child-fisherman with hands or boards held in hands in a big lake (she later found out they were essentially slaves :-() to check nets/traps. These were just squared off timbers roughly 18 inches square, cut off to upward sloping wedges at each end, and used like sit-on-top kayaks. They had to be kept continually dry, and they were set on pilings in the water when not used, or up on the beach. They were literally "improved logs" and opened my eyes to one possible phase in watercraft evolution. (I did not see these craft mentioned in the encyclopedic survey of boats, From Aak to Zumbra, and I sent the publishers a photo of the craft).

I have read the ca 1960s ethno-economic study of the Brazilian jangada raft Fishermen. Tim Anderson's old website (Tim Anderson's Home Away from Home) also posts a few photos of very narrow sailing rafts from the same general region, rather like a jangada but very nearly a raft-analog to the sailing canoe.

For it seems that the development of outriggers and trimarans can go back to either or both of these early types, rafts and dugouts. The way logs can be accidentally (lashings break, log floats away) or intentionally (hey, this thing is heavy, can't we subtract some logs?) subtracted from a build-up seems to be one avenue for the evolution of the outrigger concept. (I think Tom Hank's 'sailing raft' in the film *Cast Away* is a little like this).

A trimaran approximates a raft with some logs removed to lighten it, allow one-person paddling, while maintaining stability. I think Jim Brown has suggested a single-outrigger might have evolved from double-outriggers that survived having one side broken off, and the sailors returned home to tell about it. The easy modification of a raft might also evolve into the concept Ian mentioned above of adapting double-canoes to single outriggers.

So more information about various indigenous uses of rafts might pertain, here.

**Wade Tarzia**

March 22, 2013

Sorry, the sailing raft-canoes are from Ecuador, not the other side of S. America as I had implied: <http://www.mit.edu/people/robot/balsapix/sternbig.jpg> — Wade

ian

March 22, 2013

This isn't a whole lot but item one speaks to the possibility of rafts morphing over time into planked boats in Asia-

<http://indigenousboats.blogspot.com/2009/09/four-roots-of-boatbuilding.html>

more about early Asian maritime activity and rafts-

<http://archaeologynewsnetwork.blogspot.com/2011/04/rising-seas-made-chinas-ancient.html#.UUyGELlyB8E>

That sailing raft illustrated in the first link is remarkable to me for how closely it resembles modern scow racers, planing dinghys and the wider open transom offshore racers. The angled boards are a nice touch and I found this too regarding more recent SE Asian bamboo sailing rafts-

"In sailing days the daggerboards (up to three of them) were simply shoved down between appropriate hull-bottom bamboos and were wedged against arched supports that spanned clear across the hull."

<http://www.boatsandrice.com/bambooRaft.html>

This is clearly not entirely luck or superstition or limited resources at work in guiding the development of these sailing rafts- these guys clearly knew their stuff, and just as the Pacific islanders had surf derived special knowledge that no doubt helped them with designing multihulls, the Chinese had a lot of lightweight design and construction

experience with aircraft in the form of kites and even rockets, that applied not just to hulls but also to the air- and hydro- foils involved in sailing...despite the un-sleek appearance of many asian boat types, they had a pretty decent grasp of fluid dynamics and how to approach various design problems.

Whoever developed that sailing raft was designing far ahead of available technology and materials, so one has to wonder if the gentle upturning of the outer planks to create a more saucer-like shape was a tentative stab at a displacement monohull vessel that kept that shape to maintain a raft like bouyancy before a sealed planked hull was possible...

or maybe it's something akin to an ancient Chinese MC Scow-

[http://sailboatdata.com/viewrecord.asp?class\\_id=3512](http://sailboatdata.com/viewrecord.asp?class_id=3512)

-and with the positive flotation of a bamboo raft, keeping water out didn't have to be a primary concern...rafts are if nothing else inherently self-bailing.

It'd be easy to assume that the extra wetted surface from multiple cylinders and lack of a rigid, flat hull sheathing would prevent anything approaching planing or extended surfing in a raft like that, but surfing experience shuts any "rafts can't plane" argument down pretty quickly when you consider the surf mat, which is technically a bladder raft, and yet another ancient and fairly ubiquitous boat form-

"The basic holding power of my surf mats comes from curve in the bottom and rails. Primary directional stability comes from nearly straight lines over the length, with several rounded contours across the width. All are variable, continually sculpted by the wave's face and its surface texture. Mats operate best when minimal effort is applied.

But here's the catch: unlike photos of solid boards, display pics of fully inflated surf mats are not at all representative of how they appear in motion across a wave. They're two completely different things.

This type of surf mat is designed to function with very low air pressure, actually looking laughably baggy (thus the fond nickname, "Trashbag") until the rider lays on the deck. In fact, one way to properly estimate air volume prior to surfing is to inflate until the mat can be easily folded on center to 90 degrees.

When surfing, a mat's exaggerated bottom curves softly flatten, width increases, rails tend to become thinner, taking on the angle of the wave face, become more egg-shaped, and the thickness profile (esp. on the inside back 1/3) tapers down toward the tail."

[http://myaipoboards.org/surf\\_mats.shtml](http://myaipoboards.org/surf_mats.shtml)

Aside from the rigidity of the framing method and any similarity to planked boats, that bamboo raft is...a bladder raft that shares many similarities to a surf mat including the potential for very high planing speeds.

There's really no reason to automatically assume that it couldn't have been intended to use similar variable geometry to adapt to wave and sea conditions and was a very sophisticated machine rather than the primitive attempt at a "real" boat that it might appear to be at first glance.

**ian**

March 22, 2013

one thing re: "The problem of keeping the wood at the right moisture content for longevity and buoyancy? (and for rafts, the issue of weight — you might need to keep rafts drying out all the time, but their weight might be prohibitive for beaching and carrying about high water, unlike a lighter) dugout)."

One beneficial characteristic of bamboo is that once the initial drying out occurs after harvest, it is very resistant to rehydrating even without any sealant and totally immersed for long periods. And it's light.

So areas with lots of bamboo available might naturally develop more boats that exploited its good characteristics and those of rafts in general...same with reeds. But it may be helpful to consider the bamboo and reed rafts as not exactly the same type of raft as one made of wooden logs.

In some ways they could be seen as analogous to modern RIBs in the sense of combining elements of a bladder raft with a rigid element that offers more hull-like performance.

BTW, looking at all of this the picture that I see emerging is one where adaptable forms and flexible structures including variable geometry was the rule in native naval architecture rather than the exception until modern shipbuilding and naval architecture came along promoting ever more rigid construction and limited single purpose forms.

**ian**

March 22, 2013

Another piece of the puzzle, or maybe a whole other puzzle that Frank's comment brings to mind-

while boats are literally everywhere and have been for eons, it seems that only the ancient Asians put much effort into developing boats that would have residential living as a primary purpose, and few ancient cultures seem to have developed cabins much past temporary skinning or thatching over of open boats, even when making long open water passages.

Rafts are an obvious candidate for a cheap house boat that doesn't need to perform well underway, but the boats developed by the chinese in particular for living aboard were usually fully found planked monohulls that were extremely advanced for their day, with watertight compartments and full width domed cabins and overhung decks that resemble many modern trimaran "bubble" cabin layouts.

I'd say that that aspect of living in or on a boat had a lot to do with that choice to go all in with planked hulls in places like colder parts of China, where you'd really needed a seal-able envelope to survive full time living even if you weren't at sea.

**Wade Tarzia**



March 23, 2013

I hadn't known sampans derived from rafts. That "raft-constructed sampan" is amazing.

**ian**

March 23, 2013

No discussion of ancient archetypal boat forms and their evolution in the general areas we are talking about is complete without asking: Where are the skin boats?

It is often assumed that the realities of Eskimo style hide coverings in the tropics made that type less than ideal, and that makes some sense- but otherwise there's no reason not to have used fuselage style/SOF construction or some variation in the Pacific islands.

Eskimos may have had little choice based on materials available, but even with plentiful timber available SOF has a ton of really nice advantages, especially if you have no tools except for a crude knife.

Obviously skin boats are going to be harder to detect as far as finding physical remains, but I'm becoming more and more convinced that there are virtually no recorded examples of ancient Pacific island skin or hybrid skin boats not just because they would have all disintegrated quickly but because nobody really looked very hard for them having mostly dismissed the idea out of hand...or because they didn't know what they were looking at.

This is a fascinating look at SE Asian SOF construction using bias woven bamboo splits to engineer the hull covering membrane- there's about a half dozen "modern" boat building techniques or the principles behind them being combined- diagonal planking, strip planking, plywood, cold molding, hybridized construction, coated fabrics- but it was all completely do-able \*many\* centuries ago...and it's another foreshadowing of the RIB, but in reverse with the underwater hull being soft and the topsides being rigid-

<http://www.boatsandrice.com/wovenBamboo.html>

regarding beachings/rock and how they might affect design, I'm sure there's always been differing schools of thought even within a single culture about what is "best", but skin boats operate in some of the most treacherous conditions imaginable and are well proven to be very forgiving-

"...the basketry is very flexible. A blow that would start the planks and break the ribs of a wooden boat and cause rapid sinking will just briefly dent the basket. It may dislodge a bit of the tar or varnish and cause a little leakage, but the boat will survive intact, pass through the surf, squat down on the sand and, once unloaded, be hustled up above reach of the waves, where a dab of tar or tree resin will heal the leakage for very little effort."

The other neat thing on that page is that most of those boats have really good examples of the sponsons described earlier, that in this case are almost like vestigial rafts on each side. In some cases they appear to be part of the longitudinal structural framework rather than, or maybe in combination with, being floats or stabilizers. It's hard to tell whether these examples are blossoming out or are receding at this point in their evolution, but obviously they did both.

And the topsides of the round coracle style tug boat completely blurs any boundary between a raft and modern planked construction.

**ian**

March 23, 2013

Add "fiber reinforced plastic composites" to the list of cutting edge technology used to make the basket boats possible-

"Today, the full sized boats are almost all sealed with black tar, but a few, even new ones, are sealed with the old fashioned mixture of buffalo dung (for the tough fibers) and pine resin."

**ian**

March 23, 2013

The raft/sampan is indeed amazing...on further reading I did see a reference to the upturned ends being a result of trying to improve upwind performance by reducing pounding, on a hull that otherwise was plenty fast off the wind.

It's also worth noting that even now Asian boats typically have a flatter entry than the vertical "cutwater" stems western designs have favored for so long...many of these hulls approach the medium as something to slide over instead of something to carve a path through, and even in displacement mode their more squared off footprint acts in a manner similar to having a truck with dual tires on gravel or sand- rather than creating more traction over a smaller footprint (which translates to drag in a boat), you are spreading the weight out over a greater area and \*lessening\* the downforce as measured in PSI.

The result is that you can do flatter entries and lessen any ill effects from pounding, and create a hull that is far closer to a planing state than a deeper displacement hull. There's not as much weight behind any hard slapping motions, and they put those flat parts way up in the air compared to something like a surfboard...but there is definitely a surfing/planing element going on with many of these designs like junks and sampans, even when they look positively tubby and bloated to western eyes.

Like tris the typical sailing junks tend to be very lightly constructed and minimally ballasted and use low aspect sails in part to compensate, and compared to a typical western boat of the same dimensions they are far more lively and less "stuck" in the water and with less weight aloft to damp the kinds of motions that might cause a boat to surf/plane quicker- or might contribute to the inertial force that makes a flat bow slap violently when going to weather or in head seas.

Anyway, my thinking for quite a while has been along the lines of just what we have been speculating about with the raft/tri connection..create something flat-ish but very light like that raft with a similar minimal space frame, widened out to a trimaran L/B ratio...then lose the middle parts that aren't a main hull or an ama.

Then bring into the 21st century by building it with modern lightweight tubing covered with pool noodles or foam pipe insulation in place of bamboo, and lash it together with aramid cord. With that kind of foam you could actually shove the "planks" together close enough that they \*would\* seal into a sort of envelope/skin and you could even do the through-the-planks daggerboard trick.

Integrate a mast and solid standing rigging in the manner of the jangada's sawhorse-like mast step/support (or a tripod) and add a nice balanced rig that generates lots of

vertical lift.

Sort of a skeletonized Boogie Board tri with a kite grafted on it , or if you prefer a kite with a semi-rigid surf mat growing off the tether :)

**ian**

March 24, 2013

another very detailed treatise on pacific island watercraft and navigation with special emphasis on Maori boats and travels that helps shed some more light on the bigger picture-

“The single canoe, lacking an outrigger, used by the Maori of New Zealand, seems to have been a local production; it could scarcely have been employed in deep-sea voyages. Its origin probably lies in the fact that these isles furnished larger trees for canoe making than did the isles of Polynesia. Thus the hull of a vessel could be made much wider in New Zealand than in other isles. The so-called canoes were here made with greater beam, and in time the outrigger was abandoned in most cases. Tasman appears to have seen only double canoes here in 1642, but in 1769–70 Cook found the single canoe, minus the outrigger, the common vessel on the shores of the North Island. Outriggers and double canoes seem, however, to have been more numerous in the South Island in his time. A few double canoes were seen in South Island waters by early whalers and others in the first three decades of last century.”

<http://nzetc.victoria.ac.nz/tm/scholarly/tei-Bes01Maor-t1-body-d2.html>

**Wade Tarzia**

March 25, 2013

I need to read about Cook's voyages. Can any recommend a recent annotated volume that includes his logs (or at least the relevant parts of them) and historical commentary?

## Very Unique Small Trimaran Approach – Part 2

March 21, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: biplane rig, biplane sail, kayak sail rig, kayak sailing, Trimaran Kayak, twinsail rig

### Comments

**D. Kagan**

March 21, 2013

Steve:

How do you mount your two windsurfer rigs so that the masts stay vertical? This is an intriguing design process. I look forward to Part 3. Thanks for sharing.

**Steve**

March 22, 2013

In answer to your question, the turnbar is a flat piece of aluminum plate and there is a .875" Dia. by 23" long aluminum pin rigidly mounted at each end, pointed upward. The windsurfer masts are made of aluminum tubing and each one freely slides down over one of the pins, so the masts are held in the vertical position, but can rotate around.

So overall it's a fixed-mast system where forces on the sails are transmitted through rigid masts and into the hull like on a sailboat, and not a free-sail system where the mast is flexibly attached and the sail forces go through the sailor like on a windsurfer. It just has a windsurfer look because of the style of the sails, which makes it even more of a kid magnet at the local lake. Hope that clarifies things a little.

**ian**

March 22, 2013

Splitting the sail area in half and balancing it the way it is over that pivot arm would certainly lessen the control input needed, but it would also make some kind of rigid positioning system like the rod setup almost a necessity.

The tradeoff for the lower control input this kind of more balanced rig (or a "flying" rudder or horizontal stabilizer in an aircraft) gives is usually a loss of self trimming/steering ability that is analogous to how caster in a car's steering helps it go back straight when you let go of the wheel while turning and control input drops off.

Left to its own devices a perfectly balanced wind vane will hunt and dither and may end up anywhere and most sail rigs like this have a slightly unbalanced distribution of sail area to make them weathervane more predictably like traditional fore/aft sails if they are to be a passive system (aero rig), or they may have some kind of mechanical or computer assisted control (walker wing sail).

But that is more of an operator skill/comfort/fatigue and safety matter that is separate from anything relating to rig performance; a perfectly balanced rig can work just fine to develop power but you have to know where it wants to perform best and put/hold it there...it's not as intuitive or simple as feeling sheet tension on a sail with all of its area behind the gooseneck's rotational axis.

In some ways it's kind of like sailing in extreme light airs as far as having very little feedback telling you if what you are doing is working or not, but it can happen even when there's wind because you just don't generate the same kinds of loads on the sheet with a balanced rig.

**D. Kagan**

March 22, 2013

Steve:

Thanks for your reply. Regards,

David

**Steve**

March 22, 2013

Ian, thanks for your thoughts. Actually, the turnbar that rotates the masts has a latch piece that is spring-loaded so it can be released by pulling a short line, turned 180 degrees, and relatched again with the masts back in fore and aft position. Once latched it can't turn or dither and works just like a regular sail system—you feel the sail pull and adjust as needed.

Later I added a small amount of friction to the rotation so if the sailor gets bored and wants to play with turnbar angle, the latch line can be released and cleated so the turnbar can take any position. Then it becomes an interesting game of playing off the mast position and boom position together to get maximum drive force, but it is still easily held steady without hunting, and feels balanced and under control. Obviously, if you make radical turns with the rudder, the sails will try to adjust to the new wind position and you have to be aware what you're doing, just like tacking or jibing with a regular rig.

As for self-trimming, the sails are unbalanced on their masts and will align to the wind like any sail, but as you mentioned, the turnbar is balanced and does not self adjust. However, this is a good thing, since the sailor only needs to apply small force to get the system to move to the desired position.

**ian**

March 22, 2013

Thanks for the clarification Steve...sounds like the turnbar is in effect a pivoting mast step but otherwise the sail trimming operates more or less traditionally...not as a primary link in what would amount to an articulated boom.

It's a neat solution because it still allows you to do either, and even with similar sized sails it wouldn't be difficult to add some kind of trim device to allow the balance to be fine tuned to add some self-tending qualities back into it if you \*did\* let the bar pivot ...all it would take would be something like a tab that slightly increased the pressure generated aft of the pivot.

There's also the possibility of such a rig being used as part of an integral self steering system, as those kinds of pressure shifts on a more or less balanced pivoting vane are how old-school self steering gears "read" wind shifts to keep the boat on the same course relative to the wind.

**Robert**

March 22, 2013

Steve,

I like seeing really different sail rigs; I have not yet seen one quite like yours.

I am trying to understand the rig. If I have it right, the turnbar and bar between the ends of the boom are 2 sides of a parallelogram, and the 2 booms are the other 2 sides. If my memory of geometry serves, this defines a set angle between the boom and the turnbar, so you can't trim the sail by changing that angle. Rather, it seems you must trim the sails by rotating the turnbar. Is this correct?

It would seem such a rig would be superior sailing to windward, but lose effective sail area on a run downwind. How about a spinnaker? Robert

**Robert**

March 22, 2013

Steve,

Ignore my last comment. My geometry is a bit rusty. I see that the angle between the turnbar and booms is adjustable. Robert

**Steve**

March 25, 2013

Robert,

The rig is very good upwind, reaching, and broad reaching, but you're right, if the turnbar is latched with masts in line fore and aft, the sail area is small going straight downwind because one sail blocks the other. A possible solution is to allow the turnbar to rotate so the masts are side by side, and then more sail area is presented. But mostly I just sail it like a catamaran, angling on a very broad reach downwind with more hull speed.

An additional sail could be added for downwind sailing particularly if you were going some distance. I get a little complexity-challenged sometimes if there are too many things to think about (the walking and chewing gum problem) so I've tried to keep it relatively simple, but for, say, racing with a long downwind leg I'm sure there could be an advantage in having a spinnaker type sail.

**ian**

March 27, 2013

For what its worth, just from a technical classification standpoint based on the division of sail area and mast placement this rig is more of a schooner than anything, and even though they have fallen out of favor it's a very capable and powerful rig...

it's almost too powerful in many cases, and not a good "set it and forget it" rig at all with a large mainsail set way aft, especially with gaff rigs...some are better than others but they all have a characteristic trait of somewhat touchy handling when pressed...sailed hard enough a schooner's rudder will eventually cavitate from trying to overcome the massive weather helm, and stalls just when you need a rudder the most.

The line between "exhilarating" and "terrifying" in a schooner off the wind in a good breeze can be razor thin and even small ones can require a lot of skill to operate safely...it's not a beginners rig.

This solution is brilliant- allowing for the booms to overlap lets you move all that power forward and the balance becomes more like a sloop or cat rig while preserving the interaction of the sails that sets schooners apart from most ketches and yawls, whose mizzens are usually of little advantage in that respect and in many cases only have one to make a sloop rate as a split rig.

I also ran across this, which is a very similar layout as far as using two identically sized sails-

[http://www.harryproa.com/index.php/design/2012-08-29-23-09-29/elementary#g\\_1\\_0](http://www.harryproa.com/index.php/design/2012-08-29-23-09-29/elementary#g_1_0)

I can't see how much overlap there is (if any) of the booms but regardless they \*could\* overlap and work due to the nature of the proas direction change method (although they could be unsafe when backwinded)...

Steve's rig takes this very beneficial shunting motion and applies it to \*just\* the mast step to give a unidirectional hull that advantage of overlapping boomed sails without the entire boat being committed to shunting.

**Steve**

March 28, 2013

Wow, the harryproa.com site is fascinating. I'll bet that's an interesting boat to sail.

**Victor**

May 23, 2013

I live in Panama and my two kids are coming in two month from LA for vacations, I love the Double Sail work you did to your kayak, I'm planing to copy your system for my Hobie Outback, I think that the complicate part ( for me ) of your wonderful system is the parallel support, I found in Amazon this Triple Rod Holder Board that may be will be good, if you have the time please check this: [http://www.amazon.com/Scotty-Triple-Holders-Includes-Bracket/dp/B001M4HT70/ref=pd\\_rhf\\_dp\\_s\\_cp\\_41\\_FYM8](http://www.amazon.com/Scotty-Triple-Holders-Includes-Bracket/dp/B001M4HT70/ref=pd_rhf_dp_s_cp_41_FYM8)

I continue trying to find the two kid's surf sails if not I will copy your old PVC prototype.

Thanks in advance for your help.

Victor

# Restoring a Cross 26 Trimaran in California

March 28, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Cross 26 trimaran

## Comments

**ian**

March 28, 2013

Is this the C 26 advertised on CL in San Diego that was on a mooring in Mission Bay, going for a couple of grand? The one with the lovely interior upgrades made with the same Home Depot peel and stick tile we have in our bathroom?

The timing and condition makes me think maybe it is, and either way you've got a great boat to work with; a true classic and all around solid vessel...it was hard to just see that C26 sitting there and not want to jump in and trick it all out.

As for rigging my general comments based on having sailed a C24 almost daily for years in all kinds of conditions would be to stick with the general size and aspect ratio of the original sail plan with minor adjustments based on expected conditions...any advantage of a few extra feet of mast height and sail area may be easily negated by the extra weight aloft and the inertia that comes with it that can aggravate a tri's tendency towards fore/aft hobby horsing. The low aspect rig was part of the design and just jacking the horsepower up isn't necessarily going to make it "better".

Angle changes to shrouds and stays from altered rigs could also present issues with stock chainplates, so err to the side of caution there as well and maybe put a chunk of money into getting a pro to OK the engineering of those key failure points, especially if you change anything substantially.

It was evident to me from my sailing of my Cross that the balance of the rig as a unit with the hulls as a unit was very carefully considered not just in the longitudinal axis of weather/lee helm, but in how the rig powering up quickly would affect the boat in the pitch axis... where the center of effort of the rig of a monohull might be more directly over or slightly forward of the hulls center of buoyancy with ballast to compensate, the tri only has buoyancy to resist the rig's desire to pivot forward like a prop blade...so a bit of compensation by moving the CE aft can really smooth out that fore/aft pitching potential.

I think that Cross knew this inside out and the motion of my boat with stock low aspect rig proves it ...when the rig loaded up quickly the boat would assume an ever so slight but noticeable stern down trim that was much like that initial downward shove that surfers and boogie boarders do just before catching a wave, that uses the power and forward motion of the board floating to the surface to assist in overcoming inertia.

The result of that kind of aft of CB oriented power application is very quick acceleration that on a sailboat wastes less of the sail's power on heeling, hobby horsing and other out of trim conditions. That gentle squat acts almost like a spring to take up some of that initial blast of power, and then it redirects that power as the hull leaps out of the hole it has been pushed down into in a mildly stern down trim.

The point is that monohulls use ballast on a lever to deal with those kinds of thrust vectors from sails not just side to side (heeling) but fore/aft (pitching)...so an unballasted boat also needs to compensate in the fore aft direction by considering the relation of rig forces to buoyancy traits in a manner that tosses out a lot of assumptions and "rules" based on ballasted hulls.

Cross was one of the first people to really do that and get it close to right, and even though his tweaks and solutions were fairly conservative they were well thought out... in other words the rigs he chose weren't picked out of ignorance of "better" modern rigs and he's a hard guy to out-design, so let that be your guide to any radical modifications.

**Ken Borgers**

March 30, 2013

Brandon,

Thanks for sharing your story. Sounds and looks like you've got yourself a great boat. Helpful advice, too, from Ian in his reply. Hope you'll share some pics when you're done.

Ken Borgers

(Very) small try guy (i.e., Hobie Adventure Island)

Long Beach, CA

**Stefano**

April 2, 2013

wow ! a trimaran from 1885...sounds truly vintage, like the Amaryllis of famed Victor Tetchenko :-)

**Small Tri Guy**

April 2, 2013

Oops ... yes, er, that's a little bit TOO vintage, isn't it Stefano :-)

Thanks for pointing out my typo!

**Brandon**

April 25, 2013

Ian,

Not sure if this is the same boat your talking about because the interior is pretty rough. This boat was from SD though, I picked it up at the Cornado Bay YC. But thank you very much for the tips. You sound very knowledgeable especially with Cross tris. And any other tips you might want to thow my way are more than welcome. I am taking

your advice and keeping the new mast as similar to the old one as possible. No spreaders, same height, ect. Things are moving along nicely and I should be back in the water within a couple weeks.

**Gary Quigley**

August 15, 2014

Back in 1966 I was at a boat show in Oakland California where I met Norm Cross as he was advertising his boat designs. I was a young kid at 26 then and I bought Norms plans for his 26 foot trimaran with the intentions of building it. I got scared and never built it but bought a Columbia 22 instead. I have always liked Norm Cross's designs and when I saw this article I remembered that I still have the plans stuck somewhere but I still have them minus the Bill of Materials. There is enough information on them that you could see what was needed using high quality materials. I would like to see your boat sometime if possible. It is such a clean design expertly done unlike the old Piver boats of that time.

Gary

**Brandon**

October 7, 2014

Gary,

I would have been scared starting from scratch too! I got scared a couple times during the rebuild just while ripping out soft spots. I keep the boat in Ventura so if you ever find yourself down that way hit me up! . I would love to see what the actual original plans look like. But your right expertly designed boat, I tell that to Mr. Cross every time i take it out!

**Gary Quigley**

October 19, 2014

Brandon

The plans are in the attic and as of right now I am not physically able to get up there to get them down. These plans are for the hard chine (?) design because I believe he came out with with another design later using the West System which has layers of thin plies glued up on a smooth design which theoretically creates less drag while going through the water. I don't know if it would make much difference except in races. The hard chine might be better when going into the wind because it probably "grabs" the water acting with the keel. If I'm in the area I would really like to see your boat because as I states I have always appreciated that design, it is just a "pretty" boat.

Gary

**Brandon**

October 22, 2014

Gary,

No worries about getting to the plans, I was just interested to see what they look like; I've only seen study plans of my boat. I kinda like the look of the hard chines, and I really like your idea that they grab better into the wind. I have heard the hard chine is actually harder to build because you have to be more precise on your cuts. I was lucky enough to find one built right and just spruce her up but did enough work to appreciate the love that goes into building one. But I would be honored to show her off if your ever around the Ventura harbor.

Brandon

**Gary Quigley**

November 4, 2014

I may be having an operation soon in order to fix this problem I have. If all goes well I will get those plans down and try to get copies of them & mail them down to you or possibly drive on down and just give them to you. I would really like to see your boat and even though I do want to keep the original plans I feel you should have copies of them. You can have years of fun and pleasure in that boat and if properly kept it will last you a very long time. If properly set up you could easily take her over to Hawaii and back. Others have with boats of less quality.

Gary

**Gary Quigley**

December 11, 2014

Brandon

Going thru some stuff and I found something from N. Cross that you may like to have. It is dated 1975 so maybe I was thinking about trying to build another boat at that time but I don't remember for sure. If you want it I'll mail down to you just send me your mailing address.

Gary Quigley

**Brandon**

December 30, 2014

Gary,

That'd be awesome! My mailing address is 5840 Hunter St., Ventura, CA, 93003. Best of luck with your operation.

Brandon

**Gary Quigley**

January 14, 2015

Brandon

I have misplaced the Cross things that I was going to send you. I know I will eventually find them and I will send them to you when I find them. While looking for something else I found something else from N. Cross. I guess I back in the early '70's I requested the study plans to a Cross 34 which I am sending you. Like the other plans I don't remember doing it! Hope you find them interesting.

Sincerely

Gary Quigley

**Don**

June 23, 2015

Brandon,  
great job on the resto!

If you have any pointers, I'm in the midst of a similar project on a Cross 28. I've got no plans and I'm pretty much winging it. Just finished the re-masting, but willing to take a second look at my decisions. I ended up adding 2', but without any immediate plans to get sails to fill it up..

**Brandon**

June 24, 2015

Don,

Sounds like a cool project, it's a lot of work but very rewarding. Don't let me fool you, I was pretty much winging it too, especially at the beginning. I just asked a ton of questions and was lucky enough to ask a couple of the right people. As far as the mast height, read the comment from Ian's post above, he's probably the most knowledgeable person I came across, especially with Cross tris. Also, there is a Cross forum that might even have study plans for the C28.

<http://www.boatdesign.net/forums/multihulls/norman-cross-trimaran-7017.html>

<http://www.cruisersforum.com/forums/f48/cross-trimaran-120152.html>

Where's your project taking place? If you have any questions I'll help if I can. But thank you, and best of luck to you on your project!

**Capt. John**

August 17, 2015

For the other Norman Cross owners out there, another good man that I had the pleasure of meeting during a survey, is working on restoring a 1975 46' Norman Cross 46 Trimaran in South Florida. His blog is at: <https://ohsailies.wordpress.com/2015/08/05/patricks-post-part-2-survey-finalizing-the-sale-on-our-norman-cross-trimaran/>

Capt. John Banister, AMS

Suenos Azules Marine Surveying and Consulting

Palm Beach Gardens, Florida

**Gary Quigley**

March 26, 2016

Brandon

I found the plans. Do you still have your Cross 26?

Gary Quigley

**Brandon**

June 6, 2016

I do! She's doing great! I was just looking at some of those other plans you sent me, that was so kind of you to do that! When are coming down to go for a sail?

**Ben Alexander**

April 5, 2019

I had owned that boat in my youth boy we had. Fun.

**Brandon Walters**

April 9, 2019

Ben, you owned Poco Loco!?!

## Very Unique Small Trimaran Approach – Part 3

April 5, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: unique small trimaran, unique small trimaran hul

### Comments

**ian**

April 6, 2013

The timing of this post is great- just last week I finally picked up an old school 12' O'Brien 'Competitor' sailboard to build a very similar planing tri prototype with. This kind of sailboard-derived tri is a very simple boat to make, but to really \*design\* one and have it work out of the box is not a simple problem, so it's great to have anybody to compare notes with.

I've pondered how to make it work from many angles and using all sorts of ama shapes, and the biggest issue (assuming you would have any interest in a minimalist boat like this at all) seems to be that under sail the traditional slight heel of a trimaran is not the same as that of a windsurfer hull. The windward rail on a windsurfer is the one digging into the water to some degree, and most of the lee rail is usually in the air, even in light winds...at speed their waterlines are not at all like the boat shapes that a surfboard template suggests, and can vary from wedge like to squared off as they glide over the water and not through it-

<http://www.surfertoday.com/images/stories/ghostsofspeed.jpg>

<http://www.bonairevacationsblog.com/images/windsurfing.jpg>

So if you go with that traditional tri setup with the amas set with some dihedral to allow the boat to heel and pop the windward one out of the water, you are going to be running the sailboard hull with the opposite heel from a straight windsurfer...not saying that's anything bad necessarily, but it has to be fully considered in relation to a lot of things...main one being that a surfboard is designed in part to naturally turn via heeling, the same way the geometry of a bike causes it to turn as you lean into the turn, even with no hands on the bars.

A windsurfer works because the guy standing on one edge- something that would normally crank a hard turn on a surfboard- is helping to counterbalance the sail forces...it's so powerful a force that windsurfers were quickly able to do away with daggerboards completely and just use radical sail trim and hiking to make the boat stay sailing straight and to weather without boards or massive rudder inputs, or any rudder at all. The surfboard part of the boat is being turned pretty hard to windward all the time by crew weight/position, which creates so much inherent weather helm that you can have one tiny fin as far aft as possible as your \*total\* lateral resistance, which ordinarily would render a sailboat completely unmanageable due to insurmountable lee helm.

So- as shown in the front view, as the boat heels and settles into the ama buoyancy, the surfboard part will want to naturally turn to leeward...and it will do it more as that ama buries, which could present some serious issues in crisis scenarios unless you \*really\* nail it down and deal with that lee helm that is inherent to that hull design. Doubly so if you are in a fixed seat and not able to instantly move to compensate.

After really spending way too much time thinking about it, my gut tells me that the dihedral-ed tri hull orientation heeled to leeward isn't of much benefit at all if you are using a very flat center hull designed to plane. I'm not sure that the leeward turning forces described above will matter that much on a boat of this type, but I think they certainly \*could\*, especially when you combine a shorter slower, more displacement style ama with a fast planing main hull...if that ama buries in a gust and/or slows itself down, the surfboard that is already trying to pivot around it in a nose to leeward circle and has minimal drag when planing just got a massive boost in power, and could whip to leeward almost like a water skier accelerating through a hard turn against the drag of the towboat, with the akas being the towrope.

This is all theoretical worst case scenario stuff of course and isn't considering sail forces and CLR position that can and will be used to balance it all out if necessary...I'm sure you'll get it right fairly quickly and so will I, but I'm not gonna make anything any more permanent than I have to as far as positioning things like leeboards/rudders or mast steps, and I think on this type of boat that perhaps making all of that stuff adjustable anyway may be beneficial under normal operating conditions- those older boards had sliding mast steps and multiple foot strap positions to adjust for conditions and it's safe to assume that one might appreciate having the same ability in a sailboard with amas.

I think in the end, much like surfboards and windsurfers themselves there are many avenues to explore that will lead to variations of the type optimized for lazy recreation, flat out speed, etc.

**Steve**

April 6, 2013

Sounds like we're playing with the same kind of boat, and will have interesting stuff to share. I'd love to see what you're working on and hear how it goes.

You've made an excellent point about the tilt of the windsurfer board-it's actually designed to stay fairly flat or slightly tilted to windward. I thought a lot about this beforehand with the M3, but the first prototype used a longboard and it worked fine. The complex force balance is hard to predict for a given case, especially when there are lots of natural correction devices, like the sailor's weight, the rudder, placement of the centerboard, tilt of the hull, etc.

The dihedral angle was small, and it planed well with a slight angle to leeward.

The problem I had was that it would step up and off a plane abruptly when it crossed 7 kt hull speed. I solved that by crawling underneath a 29er at a show and looking at the shape of the forward portion of the hull and putting a small rounded belly area similar to it on the final prototype of the M3. That prototype would plow a little bit as it climbed on a plane, and did it very gradually like a 29er.

I'm back playing with the flat bottom windsurfer hull again on this current design, so am a little concerned that the step-up planing might come back, but I'm hoping that this boat goes fast enough that it will leave the 7kt area and not return for quite a while.

I think your idea of having things adjustable/changeable on the design will go a long way to solve some of these complicated interaction worries. Anyway, thanks for your comments and all the best with your design.



**Frank**

April 6, 2013

Steve – I absolutely love it when people try new things. Inventiveness is such an essential part of our boat builders character that I can't go a few days without trying to invent (or re-invent) something to do with sailing. I love the pivoting base holding the twin sails. Pure creative genius!

Starting with a kayak being adapted to sail, then adding bigger sails, then amas, reminds me of my own explorations of a few years back. (You can see exactly what I mean if you stop by my web site – <http://www.DIY-Tris.com> – and look at the section called “The Early Years”.

Anyway, I really think what you're doing is great. I am constantly experimenting with hull shapes, sail types, and am not above inventing something if it doesn't seem to already exist.

So you go, Steve! And if you ever get to Florida's central west coast, I hope you'll look me up!

Cheers – Frank

**ian**

April 6, 2013

FWIW, I'm planning on using a 7-8' surfboard split down the middle for amas, with each side oriented with the rocker facing out and angled the opposite direction of the angle of yours, so that as the boat is pressed the ama's outer side faces the water first.

I plan on using an articulated aka like those used on the Tanzanian ngalawas, so that that outer side of the ama can be swung from near vertical for maximum lateral resistance to almost parallel to the water surface for off the wind speed.

The idea is to compensate for the low ama volume by using dynamic lift (in addition to hiking)...as the wind stiffens, the ama can be adjusted flatter, which also allows the full volume of the ama to work quickly, as opposed to a traditional vee'd or more vertically oriented ama that needs to heel considerable to really use \*all\* of its displaced volume for flotation, and offers very little resistance at first.

The flat surfboard shape offers a great deal of resistance to sinking from the very beginning of its move downward, even when not moving forward...add in some dynamic lift and a surfboard shape can support a surfer that outweighs the boards displaced volume many times over. And when it does sink, a moving surfboard will naturally assume an upwards/forwards motion as it floats back to the surface...a surfboard is the original wave piercing hull form.

I'm also planning on using a delta shaped sail that tacks over the top and allows for the windward tilt of a windsurfer rig that generates aerodynamic lift...set up right a tilted sail like that can actually cause the leeward ama to \*lift\* in response to increasing windspeed, as evidenced by the Vestas Sailrocket's unique but relatively simple tilt rig that gets the entire leeward part of the boat out of the water entirely, as seen at 1:03 in this video-

<http://www.youtube.com/watch?v=pipGWQmerEQ>

-that's the idea at least...sounds kooky to the uninitiated but the real issue with a lifting kite style sail of this type eventually becomes keeping the boat from becoming airborne-

<http://www.youtube.com/watch?v=8Ow8QbXhZJU>

-hopefully the more conventional sheeting and ability to de-power instantly with the rig I plan on using will prevent that from happening-unless I want it to :)

**ian**

April 6, 2013

here's a couple of examples that are close to the rig I plan to use, only mine will use a far more tensioned low draft sail on bendy spars, and will have more simplified running rigging compared to these-

<http://www.youtube.com/watch?v=bjyva2RogeU>

<http://www.youtube.com/watch?v=96YO9dFpM4g>

-essentially the sail and spars act like a tethered kite, or can when all of the various bits and angles and sheet block positions are just right. It's a balanced rig in the same vein as the way you rigged the M3, but with a more even split of the sail area, which adds up to far less sheet tension than the same amount of area on a traditional uni rig...I figure I can get about 70-75 sq.ft. but the sheet tension should be equal to that from a a sail of about half that size.

All up boat weight is looking to be in the 70-ish pound range as well, which isn't bad considering the heavy nature of those old sailboards and that I'm not using any real exotic materials...by comparison a standard Laser has roughly the same SA but the hull alone weighs 130 lbs.

**Steve**

April 8, 2013

Ian, I like your radical ama design ideas. I can see how changing the angle of ama to the water and having a wing-like crosssection with the curve side inward to give lift if the ama is submerged could have some good results. With your sail ideas and hull layout, you will definitely be playing with a new (and hopefully friendly) animal when you get it on the water!

**ian**

April 8, 2013

Hi Steve,

I appreciate your comments and encouragement...what's funny is that none of the various ideas by themselves are all that radical to me, and I certainly didn't invent them.

This is essentially the layout I'm using, if the floats could be swung up and out...and it's from 1913 –

<http://www.pyperpote.tonsite.biz/listinmae/images/stories/ListinMAE/appareils/donnetleveque/donnetleveque.jpg>

-as oriented in the photo that float arrangement has minimum total beam and maximum planing surface and transom area, like a water ski- perfect for off the wind speed where a tri with a wide and more square-ish footprint can trip on its corners, and where long/narrow boats track better. As you swing the float up so that the outer edge becomes the deck, you can have a more blade like shape oriented vertically, along with an increase in overall beam- perfect for close hauled sailing where deep narrow hulls provide lateral resistance and beam is your friend.

In my concept the straight edge of the split surfboard ama would be outboard with the curved rail side towards the boat, with everything floating just like an empty surfboard, at least in the full down position...and when set for maximum beam it would have the rail facing the water as if the board were riding on edge...in practice the angle of travel would be less than 90° and the side that faced out/down would never really be set totally flat or totally vertical, but always outlining more of a vee shape when viewed with its opposite, with deadrise that can be set very shallow like a drag boat for fast offwind courses, and steeper like an offshore deep vee when you are punching into it.

The key that makes it work is the fact that a surfboard isn't just a hull that can operate in both displacement and planing modes, it's a simple but incredibly adaptable hydrofoil that can generate a whole bunch of dynamic lift when run flat and can provide lots of lateral resistance when oriented vertically.

This is essentially the orientation I'm talking about for the leeward ama when extended more vertically-

[http://tonypratt.com/wp-content/uploads/kite-boarding-852009\\_4498.jpg](http://tonypratt.com/wp-content/uploads/kite-boarding-852009_4498.jpg)

- that board is oriented in a nearly identical angle as the the leeward foils on L'Hydoptere, the Catri boats and numerous other foil assisted tris, but the lifting nature of the rig completely changes the picture and allows the entire boat to be done away with so all there is is sail and hydrofoil obviously generating huge amounts of forward thrust \*and\* lateral resistance with no keel or fins of any kind. I want that board but on akas and connected to a sailboard capable of carrying a powerful rig

BTW, I'm not counting on this being the only means of getting LR, and even if it's enough some type of board or tab to adjust CLR might be useful...

but the other thing is that in extreme light airs the most vertical orientation would allow for limiting wetted surface when it counts...if you aren't heeling only a tiny sliver of ama needs to touch the water, if at all. On an 8' surfboard ama that might mean 5' of waterline on an underwater hull section that's 2 1/2" wide and maybe 5" deep.

That is a 24:1 L/B ratio, and as it heels it only gets higher...at the point that displacement can't do it all you crank it down flatter for added dynamic lift, because now you have wind to go faster. When it's running mostly flat and set for planing the L/B ratio (figuring a 20" wide donor board) would be something like 7:1 assuming 6 feet of the board is actually touching the water.

I think the bottom line as far as the dihedral is that this boat will be ultra lightweight with lots of sail area, and two surfboards worth of wetted surface isn't much to begin with- so if both amas stay in/on the water most of the time it may not be anything like the issue it would be with a displacement tri, even in light airs. But I can dial my ama height up and down anyway via the swing part of it so that makes that initial heel angle somewhat adjustable.

**Dan**

April 30, 2013

Hi Steve,

Your Renegade spec (major items 1-12) is very appealing. Do you have any more details on building your design? Looking forward to your next update.

Hi Ian,

Very interesting comments. Do you have any sketch or some kind of graphic illustration for your proposed design?

Thanks,

Dan

**Scott Widmann**

September 9, 2020

Awesome design.

How does the mast attach to the Hull?

# Fishing Trimarans in Bali

April 15, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bali fishing trimarans, Indonesia trimarans, Indonesian trimaran

## Comments

**ian**

April 15, 2013

The canoe hull shapes are fascinating...that sort of semi-counter stern isn't very common at all on dugouts, and the gentle curve and rake to the stem and general proportions when viewed from the side as in the first photo are very similar to the Mexican "panga" fishing boats-

[http://i152.photobucket.com/albums/s167/paulinaydern\\_photos/misc%20bahia/Aug06PyD049.jpg](http://i152.photobucket.com/albums/s167/paulinaydern_photos/misc%20bahia/Aug06PyD049.jpg)

-it's only when viewed head on that the radical beam difference becomes apparent.

Makes me wonder how much of the design is traditional and how much has been adapted relatively recently...and why they chose that squared off overhanging counter with a more canoe-like underbody, rather than just fairing the lines all in like most other canoes...it's especially odd since they seem to kind of only half-heartedly \*suggest\* a real counter stern, like one began to form but its growth was stunted.

That type of stern treatment is pretty common to a lot of older and modern Asian designs, and can be seen on Japanese fishing boats that can also share a strong resemblance to the panga lines-

[http://starr.talkspotblogs.com/uploads/49799/kats\\_blog/25-fishing\\_boat.jpg](http://starr.talkspotblogs.com/uploads/49799/kats_blog/25-fishing_boat.jpg)

-it's often used to expand a working deck; tugboats also use that kind of overhung upper hull area and Chinese junks will often have some kind of squared off upper transom that normally stays well above the water and lets the decks run wider and further aft than the hull itself would and can also give a bit of extra reserve buoyancy in following seas. That may be the idea here although it seems like far too little volume at some expense in extra weight that might make it all a wash...

The other obvious reason to add a transom to a canoe is for a place to hang an outboard back there- but these guys aren't going that route at all and use the longtail motors, \*but\* they don't use the long tail to steer with, evidently.

It would be interesting to know what type of fishing they are doing and how it might play a part in the various design elements used, or if they adapt the boats for different uses like fishing with nets vs. lines.

**Small Tri Guy**

April 15, 2013

Hi Ian,

You're asking the relevant questions with regards to the exact type of fishing these boats are made for. Check out this video...



<https://youtube.com/watch?v=>



**Joe**

April 16, 2013

The only fishing here is with a long net with floats on one side and small led balls on the other. After deploying them, they are collecting it with the cached fishes or other see food.

Sometimes they are taking tourists to fishing trips (with roads) snorkeling and dolphins viewing. The dolphin viewing is a main attraction (\$US 7 per person), in the main tourism season sometimes 40, 50 boats, full throttle to see some dolphins appear. Usually the dolphins make fun from the tourists.

The tourism center of Bali is in south. Here in the north, much less.

I don't know how old the design is, but some very old rooted boats (maybe 100 years old?) have the same shape.

The sail is deployed just down wind as the boats don't have keel or dagger board and the AMA's volume is very small.

Joe

**Small Tri Guy**

April 16, 2013

Thanks for the additional info Joe. Now I have to add Bali to the places I'd love to visit :-)

**ian**

April 16, 2013

Thanks for the additional info, Joe...I figured that nets were probably used to some degree, but in my experience these types of small coastal fishing boats get used for anything and everything that might potentially earn some money...water taxis, surfing and diving expeditions, towboats for paragliding, smuggling- you name it and it's usually not hard to find a local guy with a boat who's up to try it.

One interesting thing to note re: fishing and multihulls is that the Polynesians and others who developed fast multihulls would have been able to troll fast over long distances using lures and as a result would have had access to very fast pelagic fish that are nearly impossible to net on a small scale and are still caught commercially on poles/lines.

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Hawaiians were using feather lures very early on so we know they were aware of the idea...but until powerboats came along there really weren't any western boats capable of consistent speeds necessary for fast trolling, and the ones that could go that fast weren't very well suited for the kind of quick stops and maneuvering you need to handle and land big fish on a line.

**stefano**

April 18, 2013

Hi Joe...

few comments on your proposed tri plans: if you can

- 1) increase length and make sure that when fully loaded the stern is well clear of the water. ratio of 10:1 when loaded would be optimal
- 2) put two planks for sitting across the aka
- 3) make sure you have strong vaka-aka connections
- 4) the sum of sails should be at least 7 square metres...about 77 square feet.
- 5 ) Keep mast short and rotating. Sail centre about 4% forward of centre of lateral resistance...

Enjoy, Stefano

**Joe**

April 18, 2013

Hi Stefano.

Thanks for the advices, I will take them in consideration

Best wishes

Joe

# Trimaran Kiteboat Approach in Development

April 18, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: surfboard trimaran, trimaran hulls

## Comments

**Steve**

April 20, 2013

Ian, this really helps to visualize some of your concepts. Obviously the three-toed minimal hull area design depends on the large lift and thrust forces generated by the kite to keep it planing. With an ordinary sail it would have a tough time working, but maybe with a hybrid kite/sail form, like a kite tethered close in or an outboard wing like the SailRocket.

I like the idea of relaxing and sitting in a cockpit while blasting along at kiteboard speeds. I would imagine that if it gets up to its full performance potential, crashes could be a lot more spectacular than on their relatively tame video, but like in any other sport, you don't get speed without risk.

I look forward to seeing where the concept goes and what you come up with!

**ian**

April 20, 2013

Hi Steve,

I agree that this type of boat using some type of traditional fore/aft rig would be a pretty poor performer, but I also think that with a really well thought out and implemented design it may be possible to get decent performance out of sails of a size and type that would otherwise be woefully inadequate on boats that are better suited to a marconi rig.

I'm also in total agreement that a hybrid kite/sail makes lots of sense for this type of boat...the element of vertical lift that develops as windsurfers tilt their sails to weather is an undeniable part of why they can sail at freeway speeds and completely changes the game as far as being able to use very flat hull forms...some of the vids online of sailboard speed runs really show the kite-like attitudes and dihedral these sails can take on-

<http://www.youtube.com/watch?NR=1&v=t15LZ1Er-a8>

<http://www.youtube.com/watch?v=6SHHJGEL5T8>

note that even tilted very far aft on a step that is very far aft as well, the nose of the board is being lifted by the sail and air flow, not a bow wave...and with less of that crazy cyclical slapping that planing racing skiffs are known to do under big headsails.

It's simply not true that a surfboard shape is inherently unsuitable as a sailboat, or that the form is hobbled as a practical sailing vehicle by an inability to handle anything but flat water as so many people want to believe...this should be pretty obvious considering that surfboards have been specifically designed over thousands of years to operate in waves many times their size that no other watercraft could even survive, but just in case anyone still doubts it, scroll to about 4:13-

[http://www.youtube.com/watch?v=Y4znK\\_XdzUM](http://www.youtube.com/watch?v=Y4znK_XdzUM)

- at the speed he's going, that three seconds of clearly controlled flight in ground effect makes for about a 120' + leap across what's at least a 25-30' wave face...nearly identical to Orville Wrights first flight distance but four times as fast, and with no motor :)

No that that's everyone's cup of tea or that all "good" boats must now fly across 30' waves, but it shows just how far these guys have gone beyond the "rules" by just experimenting and not being bound by the same stuffy yachting traditions that relegated trimarans to the realm of fringe kookiness for so many years.

# Inflatable Trimaran with Claw-Wing Sail

April 19, 2013

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: crab claw sail rig, inflatable trimaran, wing sail

## Comments

**ian**

April 19, 2013

Just to clarify, I haven't actually had contact with anyone who built and sails this boat but was sent that link by another sailor I've been in contact with who has a similar rig adapted from a Sunfish lateen sail and spars, on a very nice little catboat-

<http://www.workingsail.com/sails/crabclaw/index.html>

<http://www.youtube.com/watch?v=bjyva2RogeU>

I'll let him know about this thread and perhaps he can add more or answer any questions...he's done a lot of research into multis using inflatable technology and showed me some other boats that I had never heard of that are pretty cutting edge-

<http://www.youtube.com/watch?v=AmNb4Kff5h4>

-I had to really look to make sure that that footage hadn't been sped up- those boats are absolutely screaming for being sailed in winds unable to generate more than a gently rippled water surface, but that model weighs about 231 lbs and carries 139 square feet of sail and the builder reports speeds of 20 kts with race sails-

<http://www.ducky.com.ua/ducky-19/>

-compared to something like the base model non-CF aluminum spar UL 20 they are remarkably matched on weight and 20 kts is nothing to sneeze at considering that the Ducky has significantly less sail area even with race sails...

it all comes down to light weight and wetted surface and the Ducky barely does more than sit \*on\* the water with as close to no draft as possible- and as a result even when it isn't moving it never leaves a minimal draft/wetted surface state that most other boats would only ever be in when perfectly trimmed out and planing.

At that point a lot of "rules" about the "best" sailing hull shapes kind of go out the window, as you aren't carving a deep gouge through the water and are instead sliding over it...and the other place where the inflatable concept shines is in load capacity- the UL 20 is rated for 800 lbs and the Ducky can carry 1102 lbs...so with an inflatable you probably couldn't get any part of the hull buried enough to be going "through" the water for more than a moment even if you tried.

anyway, that's just one example of what can be done, and wouldn't a trimaran with a suitably light main hull- could be inflatable or maybe collapsible skin on frame arrangement- and those Ducky hulls as amas be something to behold?... and then store in a closet when you aren't using it.

**Wade Tarzia**

April 19, 2013

The Russians get a lot of work done with inflatables, it seems. For what is, great idea! 50 pounds seems a bit light. Quality inflatable kayaks around here seem to be a heavier for a bit less fabric use — so what does that mean? More durable fabric? However, my 16 foot long Watertribe amas used on a small trimaran conversion weigh about 11 pounds apiece, and they seem pretty durable. Who can say?

**Small Tri Guy**

April 19, 2013

Hi Ian,

Thanks for that clarification. I've changed my little intro above to more accurately reflect the additional info about your source for information about this type of sail.

**ian**

April 20, 2013

Hi Wade,

I'm guessing here but based on some of the characteristics I can see in how the shapes are laid out and inflate/droop that perhaps the material is something with a very light weight and minimal support scrim or possibly a completely unsupported sheet material like you might see in inexpensive inflatables...which is very light by comparison to the really heavy duty Zodiac type fabrics but tends to just get fatter and stubbier like a balloon if you try to make it as rigid as they are through higher and higher pressures.

I may be totally off base but that might explain the very low weight figures and some of the slightly overstuffed look in some of the pics. The new generation of high pressure incredibly rigid airdeck fabrics being used to make SUPs and inflatable catamaran bridge decks are light, but not amazingly so- this inflatable touring SUP is 14' x 30" x 8" and weighs about 36 lbs-

<http://www.towerpaddleboards.com/Inflatable-Racing-Paddle-Boards-p/bd-twr-exp-14.htm>

That's probably not far off from a traditional foam/glass board of that size with the accompanying larger stringers and fins and all...

dropping the size down to 9'10" and half the thickness only gets you down to 24 lbs, which illustrates the issue with scaling inflatables- yard for yard the fabric doesn't get much lighter the way that a smaller boat can use thinner and lighter ply or planks or glass layup than a bigger one, and the vast majority of what you got rid of

dimensionally is just air, not appreciable weight.

So perhaps the really huge future gains in inflatable will be seen at sizes previously considered too big for the available materials, where now you may be able to do the reverse and expand your hull size by double and still use the same thickness materials and gain massive amounts of volume for the cost of a handful of lbs. of extra air.

Regardless the ability to stow these boats in tiny spaces and carry them by hand puts them in a class of their own.

**Kirill**

April 20, 2013

Hi everybody,

this trimaran is an experimental boat designed as a proof of concept of a "true pocket cruiser" – a man-portable boat with a reasonable performance and some accommodations.

It was built last year by Andrey Dubovskiy who used it for 750nm / 45 days cruise around the Lake Baikal in July/August, 2012. Andrey lives in Moscow, and the lake is a few thousand miles away – the trimaran was transported in a 140L backpack, with some space left for a camping gear.

Being an experimental boat this tri was built from some readily available PVC fabric (intended for inflatable structures, not boats) which required top-up pumping during this cruise.

In addition to a better fabric, Andrey suggested the following possible improvements based on his experience with this boat: increasing the diameter of outriggers, non-tapered inflatable akas of the increased diameter (at least the aft one), bigger leeboard.

**ian**

April 20, 2013

Hi Kirill, glad you decided to add to the information on this boat...

Something that just occurred to me- this boat even in its fairly low tech and primitive state really stands in stark comparison to the standard inflatable lifeboats that pack in a canister seen on so many blue water cruising yachts, that are basically the reverse of a kids inflatable swimming pool with an inflatable/fabric dome tent on top, with some ballast bags to keep it upright –

<http://www.raftservice.com/marine/avon-offshore.php>

To be fair, many of those never get the maintenance they need to be at peak performance in a mayday situation, but even brand new the people I know who have actually spent time in them by necessity all say that while they are better than nothing, it may not be by much.

The inflatable structures that make up the living quarters seem to get the most complaints, they just don't stay in place or stay as rigid as they need to be to really provide shelter even just in high winds, let alone when swamped by waves...and because you are in a round or oblong tub that cannot get out of its own way, you \*will\* be swamped repeatedly. Also when they turtle you lose all ballast and righting moment from the soft bags, and the tent/cabin becomes one big ballast bag...some people have ridden out the remainder of storms like this after being capsized because it was more stable than the "right" orientation.

Even a small ability to have directional control and momentum is often the only difference between survival and catastrophe in the kinds of huge seas that can be the reason for abandoning ship in the first place, and something like this boat that was optimized as a lifeboat for those kinds of conditions could really save lives...

and not just from avoiding swamping and broaching in waves; the unique over the water bridge deck aspect of tris and cats makes them better suited to avoiding hypothermia than the typical liferaft where you only have a thin layer of bottom fabric between you and the water at all times.

**Kirill**

April 22, 2013

Hi Ian,

I'd guess that with modern materials it is possible to make a frameless inflatable multihull of sufficient size to be stable in high seas. A frameless (all-inflatable) construction should facilitate fast deployment, and it does not have to be very rigid to deploy a trysail.

Speaking of smaller inflatable multihulls – easy beaching is quite an important advantage, which lets them cruise some very challenging cruising grounds.

Check out this Cape Horn video of a Ducky 19 catamaran:

<https://www.youtube.com/watch?v=XXRgPRLZdGI>

Absolutely safe in 60+ knot winds :-)

**sooth**

May 3, 2013

There's a small sailing trimaran inflatable called trienergydiet that is or was circumnavigating, left Hout bay 2011, has a frame. <http://www.energydiethd.com>

**Small Tri Guy**

May 3, 2013

Hi Sooth,

Yes, thanks for reminding me about the "Energy Diet" trimaran. I posted about it a while ago here at the following link: <http://smalltrimarans.com/blog/?p=5052>

**Lenny L.**

July 2, 2013



2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Wow, what an amazing boat. I wish there were plans available for inflatable boats! The materials are cheap and durable. I would purchase plans for sure!

Does anyone know if there is a Russian website with plans or descriptions on how they make their inflatables? There was a topic on inflatable proas on proafile, but it has not progressed.

I have an inflatable kayak and love the portability of it. There is a lot to be said about taking your boat wherever you want in a backpack!

**paul gourkaloff**

September 15, 2013

<http://gik.fordak.ru/> a Russian forum with descriptions of inflatable cats and tris built and sailed

# A Homebuilt Trimaran for the Shores of Greece

April 29, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Greed trimaran, Homebuilt Trimaran, homemade trimaran, trimaran in Greece

## Comments

**Tom Williams**

May 1, 2013

So, I am not sure that I understand...is the boat in the video one that he designed and made? It appears that those amas are inflatable and that the main hull is rotomolded.

**Small Tri Guy**

May 1, 2013

Tom, the video features his first small tri, which utilized a production kayak for its vaka (main hull). The model, which is featured in the photos, is the boat that Andreas designed (and is building) himself.

**Luca Z**

May 1, 2013

Tom, as Joe said the video concerns the first try at small tri. By the way the amas are not inflatable but composite epoxy with carbon - kevlar cloth to polyesterene core. They are extremely lightweight and rigid. Also the sail, rudder, leeboard akas and the trampolines are homemade by me.

**ian**

May 4, 2013

It will be interesting to see how the boat ends up working as far as the very flat bottom panels go...I'm sure many eyebrows will go up when looking at the lines, but many hull design considerations developed during the centuries when monohulls were the main focus may fall in a completely different order of priorities...

when you factor in things like long/skinny beam to length ratios and low overall weight, the slapping and harsh ride qualities of flat bottomed hulls can be mitigated quite a bit, which is pretty much the idea behind long lifting strakes and pad bottoms on vee hulled powerboats...they spread the dead flat areas out so they don't all hammer the water at once, but still get a benefit from the more efficient flat planing areas.

This boat does something similar and imo it's a pretty safe bet that the kinds of jarring and potentially damaging motions that you'd get with the same amount of flat area on a heavy monohull slamming down in a seaway are just not going to develop if the boat is light, reasonably well engineered and sailed within its limits...

the flip side of this is that if you watch videos of these modern ocean racing tri hull types with very skinny sections and tall, straight hull sides and plumb bows on all hulls, waves hitting them from the sides and quarters can induce very similar jarring and potentially damaging slapping, just from the sides this time...some examples here, especially at 3:10 to 3:13-

<http://www.youtube.com/watch?v=GJ8vd9p8fDU>

-that helmsman is working his tail off to keep the boat from getting hammered from the side, and that quick jerking motion appears to be partially a rudder correction in anticipation of what would otherwise have been a significant slam to the boat as it fell into that trough lee ama bow side first...but part of it \*is\* the boat doing just that and you can see corresponding spray when the wave slaps that ama bow .

**Luca Z**

May 4, 2013

Ian,

thanks about your comments, I really appreciate your opinion.

Planning hulls.....an endless talk all over the internet. lol. ONYX 16 is just a project, an experiment, so I hope to figure out the design weaknesses before it's too late.

Some more info to add about the sail area: I designed ONYX 16 to be underpowered, at least for the first few times in the water. The reason is because I'm afraid about the amount of power the hull can carry. So I'll compromise at the beginning until I find out the boat's capabilities.

# Paddleboard Trimarans in Action

May 5, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: paddleboard trimarans

No Comments

# Uffa 10 Trimaran with a New Rig

May 6, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Uffa 10 trimaran

## Comments

**Steve**

May 6, 2013

I went to the Diciepiedi Class site and looked at all the trimaran pics. Lots of interesting design ideas and great to see everybody having fun in small boats!

**Small Tri Guy**

May 6, 2013

Many Europeans have "small boating communities" woven into their cultures. It's really neat to see!

**Luca Z**

May 9, 2013

a lovely tiny tri

# Introducing the PuddleCat Trimaran 12

May 10, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: PuddleCat Trimaran, PuddleCat Trimaran 12?

No Comments

# Dick Newick REV Trimaran for Sale

May 10, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

No Comments

# Completely Different Approach to a Standing Board Trimaran

May 17, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chesapeake Light Craft, CLC sailing kayak, CLC trimaran, Standing board trimaran

## Comments

### Wade Tarzia

May 17, 2013

Pretty! But the amas seem as though they could catch a lot of water when the boat is driven hard.

### Small Tri Guy

May 18, 2013

Hi Wade,

You can see the very modest sail that would usually go on this boat at this link: <http://www.clcboats.com/shop/boats/boat-plans/sailboat-plans/clc-sailrig-kayak-canoe-sailing-rig.html>

### ian

May 18, 2013

I'm really curious how the whole stand up aspect works as the wind picks up and the boat heels- a lot of the balance input in standard windsurfing comes from the rider being able to hang off the boom to windward in a pretty stable orientation no matter what the board is doing, even when airborne.

This boat trades off a lot of that hiking ability for the stability of a standing rig, along with losing any lift (and stability) benefits of tilting the sail to windward and it seems like it might be difficult to balance without the benefit of hanging off the boom, while still having to stand there holding it in one place where you have enough leverage.

It also seems like as it heads more off the wind you would have to walk forward as you held the moving boom, which would trim the bow down just when you'd want the opposite...and you can't move fore/aft much without sail trim being affected so any counteracting movement might be difficult.

Probably a lot of fun in the kinds of conditions he designed it for, with a pretty definite limit to how hard you can push it before it stops being fun...kind of reminds me of the sailing kayak version of an antique car with a huge V-8 in it, the kind that can peel its undersized tires off or might just fold up if you hit the gas too hard.

What might also be really fun is this powerful rig with a very minimal hull combo, but with a wider athwartships deck area (like a solid trampoline) that you could move around on while standing, along with a simple mainsheet system that you could hold and adjust on the fly as you danced around trimming the hulls over/through the chop, more like traditional surfing than a windsurfer.

You could stand/move wherever you needed to for balance and quick hull trim and still be able to do sail trim without affecting either, and it would probably be great exercise and could be pushed pretty hard with some practice.

### Steve

May 21, 2013

I've had a few experiences with trying standup sailing on small narrow or multihulled boats, and a fixed mast rig like this example behaves a lot different from a free sail (windsurfer). On the fixed mast rig, the standing sailor represents significant weight up high above the waterline, and the boat wants to tip at every gust, so the control thing gets a little squirrely to say the least. A windsurfer has the mast tilted to windward and gusts do not get transmitted directly to the hull. Lots of the small puffs and bumps get damped out through the windsurfer's arms and legs.

That being said, standup sailing of a boat like this might be fun if the sailor can stay upright and in the right position. I'm a little concerned about where he/she will go to bail out if/when things get out of control, which they definitely will once in a while in higher winds. A suggestion might be to have large padded or flexible surfaces for the sailor to move around on for balance, and some planned crash strategies.

### Etienne Muller

January 22, 2019

Hi, I am the builder of this little boat. There seems to be a misconception that this is a standup rig.

Not shown in the main picture are the seats, which attach to the cross members. You can make them out in the lower photo.

When powered up one is seated outboard with one's feet on the centre hull. Standing is only for showing off when entering harbour.

The boat also has a proper swinging centreboard to help it upwind, as tris are not at their best beating.

### Small Tri Guy

January 22, 2019

Thank you very much for correcting us about this Etienne! I will post an update in the post above, and also link to your website.

### Paul Scott

September 12, 2021

The strut attachment is a part of a boom clamp?

Does the mast rotate within the strut attachment?

The boom clamp keeps the strut attachment from moving up?

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Could you use another boom clamp to prevent the strut attachment from moving down? Or did you laminate a flange to the mast? (It's hard to tell from the pic)

Very clean and ingenious lateral thinking!

**Etienne Muller**

September 13, 2021

Hi Paul, the boom clamp is tightened down fully. The shroud truss clamp is a little loose, so the mast can rotate. Movement of the boom clamps is not really a problem, although epoxying collars onto the mast is a clever idea. I have not done that, because I mainly use those rigs for windsurfing.

Next year I am going to redesign the rig setup, along the lines of a small iceboat perhaps. Just to make it easier to strike the rig when one is hanging around on the beach.

I am also considering a comfortable seat option on the main deck, for use with a small motor, for those no-wind days, so I can go without the rig.



# Strike 15 Trimaran Build Continues

May 24, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Richard Woods, Strike 15 Trimaran

## Comments

**Luca Z**

May 26, 2013

I really adore mr. Woods boats. This one is my favorite and looks like weta substitute to me. I borrow some ideas from it, for my own project.  
Great Job Richard...keep going

# The Fast RagWing Trimaran Design Named Seven-of-Nine

May 31, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Jolly Roger, RagWing Trimaran, Roger Mann, Watertribe

## Comments

**Robert**

May 31, 2013

It is a nice-looking boat. It looks as if there are daggerboards in the amas and nothing in the main hull, though the shape of the hull looks like it would inhibit side-slip. How does it point, and tack? Robert

**ian**

June 3, 2013

I love the fact that not only does this boat perform exceptionally well, it does so while ignoring a lot of "rules" about how a fast boat of this type must be built.

It's heavy by modern standards, the main hull is skinnier than the amas, and those amas are about as antique a design as can be had in a donor beach cat, predating the Hobie cat by half a decade...and yet it turns in speeds that are comparable to some very exotic high tech tri racers that can cost as much as a small house.

Here's an article about the designer/builder of the Isotope that gives a bit more background on his design concepts and why they have worked so well for so long-

<http://www.progressiveengineer.com/PEWebBackissues2002/PEWeb%2025%20Apr%2002-2/Meldau.htm>

That extreme hull shape with the very deep but narrow forefoot is really worth consideration...it has fallen out of favor lately but has a lot of advantages as far as developing lateral resistance in addition to any provided by boards and rudders, and fine tuning the center of that resistance more forward. It also makes for a less slappy motion to weather and better tracking that can translate to higher pointing ability, as that deep forefoot acts almost like a keel in its own right.

**Roger**

July 18, 2013

I wanted to mention a couple of items that folks have committed on. The center hull is narrow at 22 inches but is still 4 inches wider than the amas which are 18". The photos are somewhat distorted. I have posted some more of the construction of the hull and building up the wings. This may help with some of the questions. Currently I am also removing the Isotope 26 foot mast and installing a Prindle 19 mast which is 30'3". Folks have asked for more videos so I'll get some up as soon as I get her back in the water. As far as sailing she goes into the wind very well with no board in the center hull and with just the isotope boards. I have not wished for any better but with my limited sailing experience I do not know what great would be, so I can hold a good angle into the wind. Tacking is very easy since you can shift from one side to the other while keeping your feet in the center hull. When the wind is light and you do have trouble getting tacked all you have to do is grap a paddle and help alittle and this is very easy as well unless you install tramps. Handling is very good and the tiller is balanced with main and jib up, you can see that in the video since I am recording standing on an ama and no one is steering. With just the main sail tiller pressure is higher and she wants to turn into the wind. I hope this answers some questions. Thanks, Roger

**Small Tri Guy**

July 18, 2013

Hi Roger,

Thanks so much for joining us here by adding to the conversation about your boat. Please let me know when you post some more vids so I can add them to this post :-)

# A Custom Built 10 Foot Trimaran Called Trix

June 3, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: small trimaran, Trix trimaran

## Comments

**ian**

June 4, 2013

It's great to see someone experimenting with this type of flexible semi-articulated crossarm connection scheme...I'm convinced that eventually this kind of setup will become fairly standard on tris of all sizes and designs that try to rigidly maintain all hulls in a fixed position relative to each other will seem as quaint and antiquated as wheeled vehicles with solid tires and no suspension seem today.

The benefits fall into two main areas- first, loads developed as the boat pitches are distributed more broadly and so there's far less torsional loading trying to twist the boat up diagonally, and less need for heavy framing to take the forces...

secondly, this kind of variable ama trim could help to mitigate issues of the amas slapping or nose diving/porpoising...

I envision something very similar as far as the main beam bearing the primary loads from heeling and being pretty much over the center of buoyancy, with the aft arm acting as a kind of stop to limit the ama's range of rotation and also as a kind of spring that can soften the loads at the extreme ends of that range as the ama moves through waves.

Another idea would be to make the main crossarm a torsion spring like the old VW rear suspensions...a tri designed this way could have a very nose-high ama trim when out of the water, that would settle down on its lines once it was floating...

the ama could still be driven under when pressed hard and the aft beam could limit the motion so the it never assumes a nose-down trim, but as soon as the pressure on the ama lifted it could naturally adopt a nose high trim that along with the stored torsional energy unloading would make it want to shoot up and forward out of the water almost like a submarine making an emergency ascent.

The reverse is that when the lee ama came out of the water (like in a wave trough) it would naturally assume this nose high trim and would maintain it until it came back into contact with the water, meaning that instead of coming down flat and hard on the forward sections the ama could make contact stern first with lots of suspension travel to take up the shock, like a motocross bike landing a jump.

Not only is this a good way to prevent bow slapping in a seaway, there is also the potential to utilize some of the wave energy stored in the springs as it is released ... a planing ama with flat aft sections could act almost like a dolphin tail to convert the torsion spring energy into forward thrust as it is released, in the same manner as the wave drive system used on the Suntory II wave drive-

<http://www.popsci.com/gear-gadgets/article/2008-02/wave-runner>

<http://www.rhythmism.com/forum/showthread.php?t=70202>

**Steve**

June 4, 2013

Nice boat—easy to transport, and looks like it's fun to sail! I had two questions—do the lashed-on mounts for the amas work well? And have you had any problems with hobby-horsing (that means the whole boat wants to rock forward and back in wave action)? I'm also interested in short trimarans and thinking about these issues. Thanks for your article.

**walter monici**

June 7, 2013

Dear Ian,  
thanks for the comment,

For many years I looked at differences between modern Western trimarans and the system of Polynesian outrigger canoes.

On the one hand completely rigid structures that often in large ocean crossings have come to break, the other a structure formed by a supporting bar laterally stiff enough but with the attack of outrigger made of four tied sticks that allow mobility. The aft transverse is a thin curved wooden and flexible.

I designed many patterns for big oceanic trimarans: one included the presence of spring close to the foot of the mast, or rods connected to internal springs to the hull, or as you say with a torsion bar located along the outer edge of the hull.

These patterns predicted that the fore crossbar could bend upwards and tilt the mast while the outrigger could move freely through articulated joints.

This scheme might work but just thinking that the central hull would always be in the water and allow to design oceanic trimarans much more robust, secure and not prone to breakage like the present.

Instead we see that the racing trimarans completely lift off the water in speed and work exactly like a catamaran with the defect of having a hull over and then more weight.

The America's Cup has shown that in terms of pure speed catamaran is unbeatable.

And then because we are lovers of trimarans?

Why is it more boat, because it offers space on board, because sail upwind as a monohull and if our goal is not the highest speed is more secure, don't nose dive, allows us to carry the family, fishing, sailing, calmly and confidently.

The crossbeam of trix is ??elastic and flat to allow the twist and the floater to move independently,

There are others that can go closer to the Polynesian model : make a very rigid beam and a fastening system ama which allows the oscillatory movement. This would prevent the mast to bend sideways forcing on the shroud when it's attached to a flexible crossbeam.

For boats up to 14 - feet I think that it is better to use a mast tucked into the deck without shrouds as in the classic dinghy 13'

In conclusion I agree with you: the trimaran should be flexible but will be slower and safe and roomy, otherwise if you like to go fast get a cat.

then I say to Steve

No, the boat do not absolutely tends to porpoising or hobby-horsing as you say, (beccheggiare in italian, this word is not in google translator) thanks to the deep bow that pierces the waves and suffers less thrust and the bearing stern that rests on the wave momentum generated from the boat.

The binding system with textile peaks is safe and functional but must be done very well: do before ring ligatures and then put in maximum voltage these two rings pulling a little line between the two. see it well enough in the photo, while the aft beam tying should not bear too many pressures but allow freedom of movement.

**ian**

June 8, 2013

Hi Walter-

I too have been looking into the more flexible designs of early multihulls and there turns out to be far more than the polynesians and pacific islands to explore for design ideas, especially designs that really exploit the "soft" type of hull support structure that can be engineered with lashings and more elastic materials.

These designs not only allow the structure to flex, they can actually be adjusted for differing conditions and loads by adjusting the lashing tension and positioning-

<https://sites.google.com/site/stobbsfamily1/Home/some-model-pics—boats-1/ethnic-canoes-and-boat-models/outriggers%20001.jpg?attredirects=0>

-the lashed connections between the crossarm and hull are very interesting as well, and show that these people understood the engineering involved quite well- modern alloy or composite tubing and high strength synthetic lashings could be used to build any of those assemblies exactly as shown and would be far stronger while still having the benefits of the soft connections- maybe even stronger than making the same connections using hard fasteners of equal weight.

I'm currently building a planing 12' sailboard based trimaran that will use aluminum tubing and angle stock to create an articulated crossarm system that combines examples 2 and 3 in the picture above...and allows for the "elbow" positions to be adjusted through that kind of arc, sort of like retractable landing gear on an airplane.

The idea is to allow the ama (half of a surfboard split lengthwise) to be positioned more on edge with the curved side down in light airs for lower wetted surface and because there's less need for righting moment, or to windward where the edge-on orientation creates more lateral resistance...this also extends the overall beam slightly which helps counteract any loss of high initial stability with a flatter ama orientation.

Off the wind when the boat is going fastest, the arm can come down to present the ama more like a water ski so it can plane...and as the beam is decreased the lower overall beam/length ratio should help straight line tracking and should help prevent the boat "tripping" on an ama bow as more square designs are known to do.

I'm hoping to be able to rig the whole thing to be adjustable on-the-fly, but at the very least it will be adjustable on the beach. I'm also fairly sure that there will ultimately be a difference in the spring rate and travel of the two crossarm assemblies, with the forward one being more rigid and the aft one allowing more flexibility just as you describe.

We shall see how it all works, but it seems to me that if giant bombers can swing their wings and big monohulls have systems that can swing their ballast and keel almost out of the water while under lots of sail, a trimaran that could adjust its geometry for conditions as they happen and might even warp between a traditional stance and any of a number of other ones- including a catamaran- is not impossible at all, and might actually be pretty simple by comparison.

**ian**

June 8, 2013

here's a link to the page where I found that illustration, that has a number of very nice models of more atypical outrigger boats, many of which have similar lashed crossarm connections-

<https://sites.google.com/site/stobbsfamily1/Home/some-model-pics—boats-1/ethnic-canoes-and-boat-models>

-also I just noticed that there are actually three view drawings of many of the indian ocean boats here-

<https://sites.google.com/site/stobbsfamily1/Home/some-model-pics—boats-1/more-ethnic-models-and-data>

this one in particular is an incredibly sophisticated non-polynesian design-

<https://sites.google.com/site/stobbsfamily1/Home/some-model-pics—boats-1/more-ethnic-models-and-data/Drawing%207%20Kenya%20central%20ngalawa.jpg?attredirects=0>

Finally here's a really nice collection of traditional crossarm to hull lashing solutions from various cultures-

[https://sites.google.com/site/stobbsfamily1/\\_/rsrc/1346765234725/Home/some-model-pics—boats-1/more-ethnic-models-and-data/Drawing%201%20hull%20lashings.jpg?height=96&width=63](https://sites.google.com/site/stobbsfamily1/_/rsrc/1346765234725/Home/some-model-pics—boats-1/more-ethnic-models-and-data/Drawing%201%20hull%20lashings.jpg?height=96&width=63)

**Christian Skjutare**

July 7, 2013

Exellet design. I have recently been bitten by the multihull bug (again).

This time i will do something about it. I think building a copy of walters

Boat will be a good way to reacquaint myself with sailing.

**walter monici**

July 11, 2013

In the last month I send the plans of Trix to 5 people who are planning to build the boat .

I explained that the main problems are to find or make the rigging and that in my opinion the mast should be tucked in the desk.

To everybody I say that in July and August I will be at the sea with the boat and I will take all the photos of construction and joining details, I will take measurements and I will also make drafts of my proposals that anyone will be able to adopt or change as he like.

I also plan to make the same design in a 11'12' 351cm. version

I will not read my email often from mid July until September 2013 so I can't assure a fast reply to your answer.

If many other people will make the boat we should join together to see each others modifications.

Someone could tell me how to do this or can do this with me?

Meanwhile I ask you to write on smalltrimarans.com that you are intended to build the boat and what you think, it's important for me and for other people to know.

Thanks

Walter

**Len Turner**

July 11, 2013

Hi Walter,

I have been looking for a plan for the smallest trimaran that will comfortably accommodate my wife and I, while being fairly simple to construct, fun to sail, easy to transport, relatively safe, and pleasant to look at. The Trix seems to be one of just a few available. I am interested in the current version and the longer version as well. I'm looking forward to building it and will gladly share my experiences with it for any who may be interested. I like the logic that has been shared on this site of the articulating amas. Is it possible, and would it make sense to use a single ama with an articulating joint?

**Len Turner**

July 11, 2013

Sorry for the confusion. I meant to ask if it would be possible to use just a single aka. (I think I got that right)

**walter monici**

July 11, 2013

Most of polynesian canoe use a single ama.

Ian is most informed than me, I hope he can reply.

But Pacific proas are intended to sail always with the amas staying downwind and to change direction they change stern with bow.

This proa is intended for sailing long distance always with the same wind and they do not need to tack for days.

So for our need of civilized people that sail maybe in Sunday for few hours I think the tri is better than proas.

**walter monici**

July 12, 2013

This morning, while awakening, I was thinking to your question.

If you want to build a sailing proa, not just an outrigger canoe, I would make it about 7 feet wide for a length of 10'.

The ama should be far bigger than those of Trix, perhaps doubled in ballast.

Here in Italy many years ago there was the Proa 42

> [http://www.dieciptedi.it/forum/topic.asp?TOPIC\\_ID=86](http://www.dieciptedi.it/forum/topic.asp?TOPIC_ID=86)

This boat was very difficult to tack, nearly impossible for some, but not only because it was a proa but also for some design mistake.

More all if two people were on board it was almost sunk.

The Trix could become a proa and it would tack better in the direction of where there is the ama, and with more difficulty in the other side, but you should help bringing the ama out of the water with the weight of your body. That's why the boat must not be too large.

The advantage is that it would be more simply and light to transport.

It's an interesting challenge you make, if you want I can try to design a general scheme and we can talk about it in September.

**walter monici**

July 12, 2013

Dear TRIX lover,

before start building consider the TAPE and GLUE method ...

<http://www.duckworksmagazine.com/08/howto/t-and-g/index.htm>

<http://www.portableboatplans.com/resources/T%26G%20Process.pdf>

I will reply in September.

Walter

**Len Turner**

July 16, 2013

Would the floats be adequately secured and pivot sufficiently with one crossarm, or must there be two? If it would work with one crossarm, how would it be attached to the floats?

**Small Tri Guy**

July 16, 2013

Hi Len,

Trimarans utilize 2 crossbeams (as a general rule) because of stress that the 2 outrigger floats create all across the multihull platform. The aft beam on Trix is pretty thin.

It's hard to imagine a smaller aft beam on that boat.

**Alan Durant**

August 29, 2014

Hi Walter, I would be most pleased if you could send me the plans for the Trix. We are planning to sail the length of the Danube next year (2015) all being well. Thanks a lot I'll let people know how we go on.

**walter monici**

August 30, 2014

>

> Dear Alan,

where are you from?

> thanks of your appreciation of my project, but thinking about what you intend to do, navigation danube sailing, I would like to ask you some questions:

> how many will be on board? The Danube has a pretty strong current so you can just go down to the mouth. will you have an engine? how many days it will last the navigation?

> All this to say that Trix is designed for short day trips, and though it has a large load capacity for a trimaran, however, is less than a monohull boat even though it is much more stable.

> In short, I think you should make some changes to the project:

> 1) increase the volume and length of the floats.

> I think you should increase by 10 cm. the widths of the three pieces and increase the length to 10 feet. This Increase the capacity of 50 kg per side.

> This would carry the weight of a man and it would be helpful when approached at a wharf.

2) In accordance with higher outriggers no longer serves the curvature of the main cross.

3) if possible it would be better to bring the length of the main hull to at least 335, 11 feet, or 350 cm. is always easily transportable on a car, but it becomes much more capacious.

> The center board can be much shorter to avoid the shallows.

> The rudder must be foldable and you should look for one used by a sailboat, what I did is too complicated.

> Finally you can think to make more rigid the aft transom constructing it in a single piece of double width and thickness of 1 cm. also putting a towel closing of the space between the two transoms.

> Note that both the transoms are covered above and below with the same ribbon of glass fiber that is used to join the panels.

> I think you know what I mean if you know the stitch and glue construction.

> I am thinking to the demands of a long navigation, maybe two people with big load, in waters with little wind and no wave. The elasticity of the transoms need to adapt to the waves in the sea but it is useless on a river, better them to be more rigid.

I will do the best wishes to succeed in the enterprise, and you can count on me if you need drawings and dimensions of an expanded version of the boat and of the outriggers.

best regards Walter

**Alan Durant**

August 31, 2014

Thank you very much Walter, I'll take the points you made into consideration.

There will be probably three people but more and more people want to come. If it goes up to four or more I'll have to consider making two boats as I really want to try your design.

I'm English and I live in Hungary.

We will be going downstream, paddles and when we can sail.

Thanks again for your help.

Best Wishes Alan

**Robert McAuley**

February 1, 2015

Walter, i would be interested in building the Trix (original or newer design). i have built a strip canoe, Spindrift 12, a kaayak and re-built two plywood boats, so i have experience with stitch and glue construction. now i want to try a tri.

regards, Rob

**walter monici**

February 2, 2015

Dear Rob,

where are you from?

There should be some Trix under construction in the world.

The last person with whom I started planning the new version in 12 feet, he eventually discovered that trimarans are not allowed on the river Danube.

So now we might start to a new beginning.

I should clarify that I did a course in boat design and I am an architect but I'm not a professional naval architect and therefore my projects require the participation and cooperation of the manufacturer.

Even the construction details are sketchy.

The advantage is that so we can build a customized project.

My goal is to make plans very simple to build, which carry heavy loads than the length, dry, light, robust, transportable and fast enough with the right rigging and sail.

If you want to start this project, I invite you to send me your email address to send the designs of current trix 10', say if you want to carry it on the roof of the car or on a cart, which measure of the hull would like and what measures of panels of plywood are available in your area.

Meanwhile, I reread all the considerations of Ian in his letters to see if we can apply some of them.

best regards, walter

**Tony Watermann**

March 8, 2018

Not sure if anyone has actually made one of these beautiful little tris yet? Would love some updates?

Long been a big fan of beautiful Polynesian boat lines and the Trix shows that they are not just beautiful but derived to be functional as well.

I would love a set of plans for the 11 foot design. Most likely would make some changes such as a sealed lower hull air chamber and self bailing to suit out condition where we sail. Twin unstated mast positions forward of each beam so it could take a multitude of sail plans and designs. Slightly redesigned AMA's to follow the main hull shape more.

A very impressive little boat and looks to be a pleasure to sail, a job well done sir.

# Seaclipper 20 Trimaran for Sale in Florida

June 6, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Seaclipper 20 trimaran

## Comments

**Thom Coolidge**

June 28, 2020

Is your developer still for sale? What is your price? Where is it located?



# First Nicky Cruz Explorer Trimaran On the Water

June 14, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Delaveau Multihull Design, Graeme Delaveau, Nicky Cruz Explorer trimaran

## Comments

**Tom Williams**

June 14, 2013

My goodness, that sure is reminiscent of the Strike 18 trimaran.

**Small Tri Guy**

June 14, 2013

Hi Tom,

It's always amazing to me how folks (in general) view boat designs. I don't see any resemblance at all ... although they do share a few features. The big cockpit with ample seating area for instance. These are 2 very different boats. The Strike 18 would also be a much easier and faster build, especially since it utilizes beach cat hulls for its outriggers. I am a big fan of Graeme's design though. I hope to get a report on its performance soon.

**Graeme**

June 15, 2013

Thanks for your comments Joe and Tom regarding the Nicky Cruz Explorer. I started designing Trimarans back in 1988 for sheet plywood, timber and glass construction utilizing chined hull forms. The first being the Nicky Cruz 28 and if you compare all my designs it will become quite obvious that there is a common theme /trend that flows through the entire range of Trimaran's ( the Explorer being the latest and most current) including my Catamaran designs.

I am of course flattered to have one of my designs compared to 'Woods' design but in reality the similarities go no further than having sails and three hulls.

Great site Joe.

**Small Tri Guy**

June 15, 2013

Hi Graeme,

Great to have you personally share a bit more about your tris here on the blog :-)

I am looking forward to a follow up report about this launch. I understand, however, that Fritz deserves to enjoy his new boat a little bit first!

**Ron Falkey**

June 15, 2013

Joe,

Thanks for bringing us the continuing story of the fabulously executed build. I have been following your coverage of Fritz's progress, and am keenly interested in the design that Graeme has developed. My general interest is for light, good performing multihull that is easy/quick to rig and is "moored" on a trailer in my carport. I think 6 meters is the sweet spot for my current situation, but there is a lot to like in the Nicky Cruz Explore. Karamea is beautifully done and should be a great minimalist cruiser.

Graeme,

There is a couple of questions I have had since Joe's 4th article on this build, where we first saw the akas folding up instead of down like are shown on showed in Your line drawings. Why did Fritz decide to make this significant change, and did/do you endorse the modification? What was gained in folding the amas up instead of down (wher e they would have a much lower clearance and Center of Gravity while on the trailer. does the modification represent an option that might be incorporated in the design going forward?

Thanks,

Ron

**Tom Williams**

June 15, 2013

I stand corrected. Thank you.

**ian**

June 15, 2013

I can see what (I think) Tom is talking about in the shots of this boat from the bow...besides the obvious similarity of being hard chined and having the extended deck, they both have a proportionally tall cabin trunk that has a kind of pilothouse look to it due to the near vertical planes of the sides, and both tend more towards a utilitarian design sense rather than making it harder to put together and/or more expensive just for the sake of a slightly sexier angle or curve.

That said, Graeme has the benefit of seeing it in person and maybe none of the similarities I mentioned are that apparent. Also good to keep in mind there's lots of designs that look great in real life that don't photograph or render as a plan view very well at all, or might appear more like another boat (or building or car or sport coat) in 2-D than they ever would in real life. And some designs are almost completely incomprehensible without seeing them in 3-D.

Of the two boats I think I prefer this flowing and less cluttered wing extension/cabin integration over the Strike's angular treatment...but both have a kind of space ship-y look that I personally really like and it seems like they'd also both be great starting points for people willing to put in a bit more build time or money to add more features or modify non-critical design elements they might find aesthetically less than ideal in the basic easy build versions.

**Ron Falkey**

June 16, 2013

Ian,

I continue to be impressed with the scope of your experience/familiarity with multihull designs and issues; as well as the insightful comments/contributions you provide to most every article that Joe posts. I find myself wondering how and why you developed such an interest and appreciation for multihulls. That would be a welcome and interesting conversation.

I too prefer the lines and layout of the Nicky Cruz Explorer over the Strike. For a successor to Dalliance, I have been looking toward designs that are 17' to 20' LOA, but this one is in the running too despite the little extra length. I look forward to getting some performance information back from Karamea's outings to add to the pros and cons of the various designs I have found most interesting.

**Graeme**

June 16, 2013

Thanks for your questions Ron and Ian.

To address your questions regarding the folding arrangement of Karamea. The hinge allows for either up or downwards rotation of the floats and in Fritz's case rather than raise the mainhull higher on the trailer( that he has purposefully designed and built) to clear the wheel guards , he has opted to rotate the floats upwards and keep the mainhull's position low on the trailer and it works just fine.

Now to attempt to answer the question of the topside and cabin look and arrangement. With the clear intention of creating a useful interior to accommodate a double berth with full sitting headroom in such a small Trimaran, along with a decent sized cockpit for comfortable sailing with good water clearance beneath the wing decks there will always going be some compromises made somewhere. Of course if you don't require that (what I consider important) degree of overnight comfort , then a lower and smaller cabin profile can be incorporated if aesthetics are a more important criterion over comfort for your particular purpose of use. With the wingdecks and topsides carrying forward to the bow we also achieve a wide deck, great reserve buoyancy and also allows for a very generous anchor locker and stowage if desired. Personally I find her lines quite purposeful and pleasing.

Cheers

Graeme

**Ron Falkey**

June 16, 2013

I would also like to hear how Karamea does on the wind in a chop.

I appreciate the simplicity in building that the flat hard chined bottom panel allows. However,I am afraid that the potential for pounding into seemingly brick-hard waves while making time in the flat bottomed Strike or Nicky Cruz could be a real draw back. I think I prefer a bottom shape like Mark Gumprecht came up with in his Drifer 17, "Gypsy Wind", or the five chined, forward V-section hulls Ray Kendrick uses on the Scarab 16. Although it could be more time consuming to build, the rounded or V bottom sections in the forward portion of the main hull could eliminate pounding, which is one of the shortcomings of my 17.5' trimaran.

**Ron Falkey**

June 17, 2013

Graeme,

Thank you for the response. I really appreciate this type of direct interaction with you as the designer.

As I have stated before, I expect my next boat building project to be from plans by a professional designer, not my own design; and hat i've seen of Nicky Cruz Explorer has her on the list of contenders. Your having ncorporated the ability to fold the amas up or down is unique and innovative.

My previous post about rhe flat bows and possible pounding may have been a bit premature without first hearing how Karamea does handle waves at speed. Based on experience with my boat, pounding in waves can be an issue. My main hull is based on the lines of a sucessful proa hull that I shorten by about 20% and widened by 24%. This wider configuration may account for the bottom panels that are prone to some pounding while footing along in a seaway.

I look forward to hearing more about your designs and work on small trailerable multihulls.

Thanks again!

**Greg**

June 17, 2013

Flat bottom hulls work fine on multihulls because they are relatively narrow for the length (or should be). In fact if you look at the work of some designers like Kelsall and others the sections are virtually flat-bottomed with rounded instead of a hard chine. At the bow the flat area is quite narrow compared to the wider part which is nearly always immersed. Karamea looks great and I'm sure will sail accordingly. Greg (who is now finishing off his NC 25 and is of course completely unbiased :-)

**ian**

June 17, 2013

Hi Graeme,

I definitely get the issue of managing headroom withing a certain boat length...you just can't get away from the basic proportions. It's a very challenging design problem that even the most experienced designers still wrestle with.

It's the same with any vehicle with interior seating...the shorter they get for their height while being limited in width, the more they tend to get a kind of bug-ish look, especially when the windows or headlights look like eyes.

I see that as a positive, since bugs are usually pretty well designed to take a lot of abuse and survive...plus the fact this type of plywood shell construction mimics the exoskeletons seen on all kinds of bug-like animals, so it's kind of inevitable that it isn't going to look so much like a boat as a creature of some kind...I think it's very cool and have always favored that kind of functional beauty over fashion styling, whether it's a boat or a building.

So I'm all for it and I find her lines quite purposeful and pleasing too. It's just hard to describe these boats in the same type of aesthetic terms you'd use to praise someone's traditional racing yawl, and you always run the risk of insulting someone unintentionally when you start making non-standard comparisons, or even when you compare them to other boats.

Same goes for the whole area of modifications- some designers are very open to the idea and others don't like it at all, for all kinds of reasons both rational and irrational. I think most people have some kind of personal ideal in mind when they judge any particular offering and when they see some element that just barely misses that ideal, it's very natural to consider how difficult it might be to attain or if maybe the designer anticipated some reason not to do it that way. So they ask or wonder aloud.

It's also very natural for designers to see this as some stranger trying to "fix" something that they worked really hard to perfect and to get their feelings hurt, but it's one of those half/full glass things- if someone is looking at a design saying it's \*almost\* exactly what they think is perfect but for 6" of extra cabin width or a two degree deadrise change over four feet of ama or a different bit of rigging or something, that's not at all a bad thing and has to be considered as part of the design that admittedly will always be an imperfect compromise.

Whether or not a designer wants to get involved in designing or even discussing mods is another matter entirely, and obviously it's unfair to expect someone to sign off on something he never really intended or worked on...but it can be very helpful for all involved when designers share their reasoning behind certain design elements with people who might ask "why did you make this part like that?" or who might wonder about a simple change that could be done with little extra cost or complexity. It pretty much comes with the territory with anything intended for homebuilding, whether it's a boat or an airplane or a kit car.

So with that in mind, for what it's worth if I were to set this design up to my personal ideal in a boat of this size/type I'd do some kind of rigid deck area between the static parts of the crossarms, since it wouldn't need to affect their action, maybe extend it back alongside the cockpit area...just a preference; tramps are perfectly fine but I like a more solid place to work/move. It could even be strips of material, like a swim step.

But I definitely wouldn't want to give up the headroom...I lived aboard a Cross 24 for about 5 years and it worked because it was very comfortable inside with not just headroom but lots of room to stretch out your arms and elbows, even with two people down below sitting next to each other. If I were to modify this cabin at all, I'd do the solid deck thing like above and then widen the cabin so it overhangs that deck just slightly (so no need to modify the main hull overhang dimensions)...maybe add another 10-12" of width at the base and half that at the top and get slightly less vertical sides...that seemingly tiny bit of extra interior space can make a big difference to the general livability of a small boat like this even if it doesn't gain you any "useable" space for things like lockers or gear or a berth.

So that's my only "complaint" with any of the dimensions or proportions, for lack of a better term...with the beam at the hinges being a full 8.5' the cabin and deck seems on the narrow side and more could be made of that space imho- it seems more like a minimal race setup than a cruiser - but I totally get that this added complexity may go completely against the entire concept as far as ease of build or may have been considered and abandoned based on some practicality like standard material sizes.

I also get that this is all total conjecture on my part without actually going below, so take it for what it's worth and in the spirit of feedback and sharing ideas. It's a great design as is and is tantalizingly close to the boat I'd consider perfect for what I'd do with it, and I'm obviously not the only person who feels that way.

**ian**

June 17, 2013

Hi Ron,

Thanks for the kind words...I guess the short answer is that I've always been a design and engineering geek since I can remember and I love the combination of performance and the seat of the pants nature of tri design and building, that was still in its relatively early stages when I first sailed on one back in the early-mid 70's.

Those boats certainly had their issues and a lot of sailing traditionalists \*really\* hated them back then along with beach cats and later sailboards...so as a teenager there was also a kind of rock and roll, piss-off-the-old-fogies aspect to those kinds of boats that appealed to me a lot, and still does :)

But having sailed and worked on those kinds of boats (including some cruising situations on larger tris) I also got a good education on what kinds of things work or don't, as you kind of had to learn and make things up as you went along when dealing with these boats that didn't act like monohulls and in some cases had some fairly serious design flaws, poor DIY and even commercial builds, overtaxed materials, etc...

unless you are talking some really time tested design you're always something of a test pilot when sailing these boats and combined with the speed potential it's just really exhilarating to me mentally- kind of like flying but without having to worry about becoming a bug splat.

**ian**

June 17, 2013

Greg makes a good point about narrow hull width mitigating slapping from flattish bottom sections...I'd also add that lighter overall weight (and no ballast on a lever) can have a similar positive effect, and that speed can as well...the faster you go through waves on a long/skinny hull, the less you tend to pitch so radically that you develop a big distance for the bow to move in that downward slapping motion.

You'll get some extra noise for sure and the ride can get harsh if you push really hard, but preventing the kind of lurching, slamming, stop-you-in-your tracks kind of motion that a flat bottomed ballasted monohull can have in head seas doesn't need to happen just because you don't have round bilges or lots of deadrise.

**Stefano**

June 17, 2013

I may prove wrong but the stern submerged with just one person leaning back in the cockpit does not speak much in favor of performance, nor design for the little I know about it ...

**Stefano**

June 17, 2013

apologies...that's 3 people on board, of which two leaning aft...still, the transom is half submerged...not a feature I would like.

From experience (negative one) cutting the hull 2 ft shorter of my own tri, and submerging by 4 inches the narrow transom really was a pejorative move.

I will in the future avoid any hulls that at design displacement will drag their transoms in the water.

#### **Graeme**

June 18, 2013

Without turning this into circus I feel the need to respond to a few areas of recent discussion. Firstly thanks Greg for your input and I am really looking forward to the launching of your striking yellow Nicky Cruz 25 in Auckland NZ later this year.

The Explorer was never intended to be designed as a cruising Trimaran it was designed around overnighting occasional weekending. The mainhull beam of 5' allows for a double berth and compact galley, any other increase to width or extra decks just adds unnecessary weight that requires a larger displacement that saps performance and also increasing the potential of slamming because the hull sections will need to be fuller. Most fast multihulls do slam in certain conditions and performance monohulls of light displacement slam and pound.

As long as the boat is well constructed and common sense and seamanship prevails then it shouldn't be an issue.

What must be remembered this is a small Trimaran and it would be a mistake to make her any bigger. But if that's what you want I'd advise you to look to a bigger design that will offer more room and displacement. You can't make a 21' footer a 24 or 25 footer, it would be a mistake.

Well that's my opinion but thanks for the comments.

Cheers Graeme

#### **Small Tri Guy**

June 18, 2013

Hi Graeme,

No circuses here my friend :-)

After years of speaking to gentlemen such as yourself (and other professionally trained multihull designers with lots of practical seamanship applied to the boats they've drawn up) that there is a good reason why every part of the craft is the way it is. To change one thing would then affect other things, which would then, in turn, affect other things. And so on.

You wrote, "The Explorer was never intended to be designed as a cruising trimaran ... it was designed around overnighting and occasional weekending." I remember you telling me about how you once had a Piver Nugget that was a great boat for that sort of thing. And I imagine you've purposely thought about what features to include in your Explorer model here by using those years as one of your inspirations. I hope the launch of Fritz' boat turns out to be the first of many Explorers on coastal waters and other local sailing venues around the world!

#### **ian**

June 19, 2013

Sure there's reason's why things get put where they do and all, but the stark reality is that if "compromise" is involved then by definition there's more than one, or even two options that were available to the designer when he decided on that compromise.

Either/or decisions aren't compromise, and physics and safety and legal stuff pretty much all fall into that category; either accept less than your ideal or pay a toll.

Even something as official sounding as "sitting headroom" is entirely subjective- yes there are standardized figures used by designers designing for mass consumption but those are tools to help them maximize the pool of people who might accept their offerings, not rigid boxes that end users mustn't deviate from.

Same goes for using "easy" construction and "inexpensive" materials as abstract design goals. Yes there are people with few skills or tools who will find this design very appealing for having met its intended design goals in that respect, but it's just not very wise or polite to assume that everyone who might find it appealing will prioritize those factors where the designer does, or even care about them.

As for declaring things "unnecessary" weight...all boats have some practical load capacity that also allows a safety margin in reserve buoyancy, and the end user has some control over that just by deciding what to take or leave home. If he's the builder, he has even more control via budget and bringing whatever skills, experience, tools, materials, etc. he may have to the equation.

In the case of the tiny solid deck area I suggested, we're talking 20-40 lbs. max. without much trouble. Not insignificant on a small boat, but well within a range that can be practically dealt with using common sense and ingenuity at any number of steps along the way.

It's a five gallon jug of water's worth of weight...evenly distributed and centered too. Don't really know what to say when my faith in the design's ability to handle that gets met with such resistance, or why a designer would assume that balancing that weight addition by taking away some other non-essential bit \*I\* find "unnecessary" or spending more time or money on the build- "compromising"- is beyond my capabilities.

Actually I do have an inkling about that last bit- it's partially an occupational hazard that comes from designers having an image of the "typical" owner/builder that by necessity you don't want to deviate too far from in the design process, but only represents demographic groups and not individuals-who actually have to be convinced that it's right for them, or could be, and don't really like having their needs dictated to them or dismissed summarily, or treated like their ideas are just frivolous and silly.

Adaptability is highly prized by consumers of all manner of products and designs and is a strong selling point, and so it's puzzling to get brushed off for suggesting that a guy's design seemed like might actually be more capable and robust than even he intended it to be, especially when his target market is home builders who often do it because they can't find what they want commercially and are looking for designs they can tweak a bit within reason.

Anyway, I found the circus comment amusing even though I think it's safe to say that I'm not the dashing ringmaster or even a mildly intelligent dancing bear in the circus Graeme wants to avoid. Ironic too since the word "freewheeling" is often used to describe both a circus atmosphere and a "freewheeling exchange of ideas".

#### **ian**

June 19, 2013

BTW, maybe there's a different vernacular outside the geographic areas I'm familiar with, but to me "overnighting and occasional weekending" falls to the side of "cruising" in the generally accepted broad sailing categories of racing vs cruising designs and considerations, especially as they apply to cabin dimensions and below decks

accommodation.

And the model is even named "Explorer", so it seems reasonable to consider it as being primarily intended for non-racing activity longer than a day sail, which in my neck of the woods makes it a cruiser or a racer/cruiser if it's fast enough to be competitive.

Also just wanted to clarify that I never complained (or asked a question) about the cabin height and actually praised it; I like that look and have said so repeatedly in reference to this boat and others that may or may not bear any resemblance to it.

This is a really good illustration of the issue of designing for hypothetical people to the exclusion of any feedback from real ones- I'm a very small person and so might actually have \*standing\* headroom in boats that don't offer some "normal" sized people even sitting headroom...but the reaction to my mention of the cabin proportions was to assume that I was complaining that it was too tall, because that's probably something "most people" who might not like its looks will cite as a reason.

#### **Small Tri Guy**

June 19, 2013

I don't think Graeme minds positive or negative feedback regarding the Explorer's design/features at all. (That is a natural part of the business). This social media blog format, however, isn't everyone's cup of tea.

#### **stefano**

June 19, 2013

I think Joe, the Small Tri Guy, does a wonderful job in moderating this already moderate I would say debate.

It might be not everybody's cup of tea but then again, people can chose not to post at all.

Of course, all (we) designer-builders-owners are very jealous of their creatures, but then exposing them to the public has inherent risks of appreciation or not. All comments were quite polite in my view and Ian has always very articulate ways of explaining himself which are as appreciated as some of the best designs. Let's keep it that way and leave touchiness out of the floor. I'll report an italian saying here which is not intended to refer to any whatsoever design or boat presented here, but just to raise a collective smile, hopefully: "Each and all cockroaches are beauties to their moms" ... :-)

#### **ian**

June 20, 2013

I do understand that this way of communicating has a way of leading to misunderstandings and hurt feelings, and I'm as guilty of reading into things too much as anyone, so if I've done so here I apologize and do want Graeme to know that above all I respect the fact that he would take on this challenge at all...it can be a trial by fire, and it's no shame if a person can't design a really capable boat \*and\* be as patient and diplomatic as a saint when his ideas get picked apart by strangers with glorified typewriters looking at a handful of low res pictures.

Interestingly enough, a lot of that potential for confusion and misunderstanding online is the result of another compromise- between trying to be articulate and thorough to avoid confusion, and keeping things to an appropriate length for the format...I do my best to strike a balance but I'm sure opinions vary wildly on how well I execute.

Stefano's right about people being defensive of their creations and as already acknowledged its natural and to be expected. It's really only an issue if ego gets in the way of sensibility...which to echo Stefano is no comment on Graeme or anyone else, just a general observation.

It's no secret that big egos and creative types are commonly found in the same places, and that can certainly be part of the fun of dealing with them, and isn't at all a bad thing- the guy who is sure he knows exactly what he's doing is often correct even when "common sense" says he's wrong.

Which is kind of my point, and why designer statements that sound absolutist are something of a dog whistle for me and in my opinion are open for respectful challenge- "You cant make a 21' footer a 24 or 25 footer, it would be a mistake" is no doubt going to be the \*exact\* thought that a lot of people who might reject this design will use as a rationalization- that it tries to do more than its compact size allows and compromises some factor \*they\* "consider important", and why didn't this crazy guy just design a bigger boat?

I'm not one of them, but that subjective opinion has a lot to do with my size needs and someone who is very tall might find it out of the question. One size fits all (or most) design approaches used to develop products and plans and the like add an entirely new set of parameters to the task of designing things, and managing them is a discipline that a lot of commercial designers really work hard on and get very little credit for, and a whole lot of grief over when some individual falls \*just\* outside of the curve or is deemed statistically insignificant in the design process.

Been there, done that.

Almost everyone will be just slightly different than the hypothetical end user model used in development whether you are designing boats or bracelets, so you \*really\* can't win..."average" is a mathematical/statistical concept and often has no appreciable real world correlation in individuals- but the "average" end user is exactly the guy all designers of commercial offerings want to please and are trained/expected to please. The average person doesn't exist but you can't ignore him- it's a paradox.

Add in some big characters and it's the perfect setup for a farce, which is defined both as "a broadly humorous play based on the exploitation of improbable situations" and "A ludicrous, empty show; a mockery".

The observer with no stake in it one way or another- online, or at a boat show or at the launch ramp- is likely to see it as the former when they make some off the cuff remark; the guy who took on that market ideal of "please everyone through compromise" knowing that it can't be done with even the best statistical tools is likely to see it more as the latter.

#### **stefano**

June 26, 2013

Well Ian..."Bravo" !!! ...I clap hands for the equilibrium of the comment and for it's linguistic quality. It makes me willing to translate it in Italian just to see how I would

render the same concepts in such a different language (my own i.e.).

Makes me VERY curious of what boats/ trimarans you personally have owned/used and loved. I hope Small Trimaran Guy could allow this digression and have a "like" list of features with perhaps some pics or drawings by some of the most informative contributors here in this blog.

A trimaran feature wish list for all those misfits of the Gaussian curve of "One size fits all" :-)

**Small Tri Guy**

June 26, 2013

Sure Stefano ... I am thinking how that might be done. Perhaps a post that asks experienced small tri sailors what features they've liked having on their boats? Maybe that would work.

**stefano**

June 26, 2013

I would like to separate two categories: smaller day sailers, cartopable (up to perhaps 17 ft maximum) and then trailerable with accommodation as a second category.

Comments would be free but categories such as rig/sail, junction systems, foldability, expected performance etc. positive features, lessons learned or whatever suggestion comes – hopefully – from direct experience would be most welcome. I would only eliminate from this "feature presentation" section the opinions, to be left to the blog comments section.

**Ron Falkey**

June 27, 2013

I too think that would be a great project!

I am not sure exactly how you/we all would staff the effort or how meaningful results might be derived — but I could imagine something like a "SurveyMonkey" survey/questionnaire that allows respondents to rank and choose the most important aspects or design characteristics. A description to the project/survey could be an article for this Small Trimaran blog along with a link to the survey.

Then a group of "experts" could analyze the results and determine if there is one or more designs that most closely meets the highest rated criteria — or perhaps that list of criteria could be used as the baseline for something like the "Wooden Boat" or "Small Craft Advisor" or (if we expand it to include the other two multihull types) maybe even a "ProFiles" design contests?

It might be more work than the results would justify, but it sure would be interesting.

Joe, thank you for all the work you already put into this blog. I don't often have much to add to the discussions, but this is one of the websites that I spend a good deal of time at. You and Ian, and Stefano and other regulars are providing a valuable service, if not just fun reading.

Thanks again!

**Small Tri Guy**

June 27, 2013

Hi Ron,

Thank you so much for the kind words. It's guys like YOU, Ian and Stefano that make this site something worth reading ... if only for fun :-)

Yes, there is a challenge do doing something like what Stefano is proposing. I am thinking about it, but I have to admit that I'm not sure how it could be pulled off without a lot of time. (That's always the biggest challenge — time).

I am, however, open to ideas. I think the SurveyMonkey suggestion is a good start. Very good idea. As you note, it's the follow up data analysis and publishing that would make such a thing worthwhile ... and that is where the time aspect comes into play.

**ian**

June 27, 2013

Hi all,

Here's where I personally think that something like this could be useful both to potential owners and designers looking to satisfy market demands...

"the most important aspects or design characteristics" are of course intertwined- you want some capability or performance goal, you design for it or choose a design that comes closest to your ideal...but there are \*so\* many options available that all have to balance with other desired criteria that it's almost overwhelming even for trained designers and there's often an equal number of valid reasons \*not\* to do things in any particular way.

It's not hard to "get it" in a general sense as far as the science and engineering goes and so we can all mostly find the good or bad in extreme examples or imagine worst case scenarios, what is hard is balancing the various goals and design solutions to end up with a vehicle that you can \*do something\* with in some actual location.

So really the most important factor is what will the boat be used for- specifically- and where? "Where" will naturally have a set of weather and water condition related design considerations that affect safety, which is of course the number one design consideration.

With trailerable boats, there's a sort of implied notion that you can take them anywhere and launch and they'll do their job, and the more something is offered as being cruising/expedition oriented the more that idea takes hold. You can certainly design a trailerable blue water or coastal cruiser, but many people really don't need that capability even as a safety reserve and don't want to pay what it costs to get it, so with trailerable boats in particular you end up with boats capable of being operated in lots of places where they maybe aren't a very good choice and might have the potential to be dangerous.

In practice it's usually some local condition presenting a major roadblock that leads to really innovative and essential design concepts, or makes one boat a complete non-

starter with a potential buyer because it focuses on something they just don't need or care about or is manifestly unsafe for the conditions or use.

It's easy to focus on our own personal sailing environment as "normal" and local practices as "common sense" but looking at the conditions in the pictures above it occurred to me that boats from places like NZ and AUS are often perceived as being more capable than most of taking on both heavy weather and very competitive "gear buster" type sailing techniques, often in combination. Local conditions are the key, but those conditions exist elsewhere and so people who want to push fast boats right up to their limits and beyond can get a lot of their needs met by going to the source. That's a compliment to those designers and sailors, but also probably a stereotype that gets in the way when they aren't trying to design for that type of sailing...I have no idea if the gray sky in those pics is "normal" for them, and if not is it a bad day or a really nice one.

When you think of boats from a regional/operational view, the viability of various design options sorts out pretty quickly- you fish in Alaska and \*need\* a cabin, you sleep on the trampolines in Baja and don't, you dive in the Med and need deck space, the kids have to be in bed by 8 so you need a motor, you face 20 foot tides or no tides, sandy shoals or coral reefs or sheer rocky cliffs, etc....when you really know what you plan to do and where it's easy to narrow your options down as a buyer, and to develop a focus if you are designing commercially for that market.

One major distinction that comes out when you look at a lot of the smaller tris this way is boats designed \*purely\* to sail for the sake of sailing, and those that consider other uses like overnighing or fishing, or just being able to move around or fit a small duffle bag of extra gear. FWIW I personally want to be able to move around, fend off, anchor and go swimming and climb back aboard on any boat I might conceivably own and so any performance advantage or "ease" of foot steering and race car seating is of little interest to me...

that's neither here nor there except that commercial designers need to consider those factors and I would be fascinated to see any kind of data concerning what the small tri market \*really\* wants as far as really capable boats with lots of end use options, adaptability via plan options and aftermarket parts, multi-person carrying capacity, etc. as opposed to more or less single use sport sailing vehicles that are presented as an expert's vision of the most perfect solution available, to a "problem" that may not have been articulated beyond a desire to create the "best" boat for a vaguely defined use that doesn't speak to local conditions.

In other words do people want Jeeps, or Ferraris? Utilitarian cargo vans or "driver's cars" without even a glove box? Or is there a better middle ground, and where is it?

And how much of the consideration is directly practical- intended use and location, safety margins, transport/storage, etc. and how much is indirect considerations over resale value, proven track record, sex appeal, etc?

I also really like the idea of people weighing in on their personal deal breakers and the experiences that led them to take that position, or if they might be convinced to take a second look at something with some key change...it not only helps less experienced buyers make more informed decisions, it helps prioritize design challenges facing commercial designers and leads to more innovative solutions and can even help revive older designs and ideas that can be improved with newer materials and techniques.

#### **Ron F**

June 27, 2013

Joe (et al.),

I would not want to have this become, or even seem to be, something massive or more authoritative than it actually is. However, if you would want "test the waters" for a survey, I think one way to initiate that exploration would be to start a new post on your "Small Trimarans" blog, one that is apart from this Nicky Cruz thread. The initial article could be distilled from some of the comments above, and sasy this is something the readers have been thinking about. We would not have to have a survey ready to use/enter data from the get-go, or even have to commit to actually having one. But that would provide a place where we could collect input from folks on the type of questions that should go into the survey.

We might hear that it has already been done and some gracious sea faring soul may enlighten us with a link to similar prior or current data collection efforts. Or just provide sufficient reason why it is a bad idea, or possibly Sisyphian task.

I agree with Ian that the biggest questions are the "how" and "where" he posed above. But there are a number of others that easily come to mind. Like: how often do you want to use the boat; relevance of cost (i.e., the "Cheap-Fast-Seaworthy" triangle that Dick Newick popularized); what level of difficulty and time is the upper limit in your mind to rig, launch and retrieve; do you currently have a boat (what type and size); LOA consideration (impacting usage, speed, carrying capacity, cost, trailering, and dockage/storage when not in use; and a host of others ...

If it would help, I would like to offer up time and experience for the data collection effort. I have worked with Survey Monkey, managing my organization's account and assisting users in standing up & downloading data for their specific questionnaires/surveys. I would be glad to help pull together the questions and propose appropriate answer formats (yes-no, exclusive choice radio buttons, range ratings, and free form test boxes) for the survey, send them to you for vetting, and then developing appropriate charts in Excel to summarize the responses.

Send me an email if you would like to see about exploring this further.

#### **Small Tri Guy**

June 27, 2013

Hi Ron,

Wow! If you are offering to help out with this, as proposed in the above, then I am happy to post such a survey. I will indeed contact you via email so we can get the ball rolling on this.

Joe

**ian**

June 28, 2013

I'll save any further specific suggestions for that future discussion and look forward to it...

as for not having it seem more massive or authoritative than it really is-

I'd be interested to hear any figures that anyone might be able to point to that might give an idea of the total potential market for the kinds of boats we're talking about- if every single person on earth who might consider owning a small tri weighed in, just how massive might the resulting response be?

As for having a survey not seem more authoritative than it really is, that's the ever present danger with statistics (and a benefit if you are a huckster or an authoritarian)... not only does bigger = "better" to many people, it also means "more correct" when it comes to chunks of data.

That may be true as far as some trend prediction being more accurately confirmed with a larger group confirming it, but the danger is that those numbers by default marginalize anything that doesn't fit that trend or have a statistically significant representation.

From a development angle it's far more productive to encourage experimentation and basic design research than to rely on market demand as a basis for developing new features and design solutions. There's tons of "crazy" ideas out there that people don't know if they like or not because they haven't been exposed to them, or they have been conditioned to think of them in some very narrow way that entirely misses some other possibility.

I only bring this up because much of the marginalization of trimarans and multihulls in general was/is based in large part on statistics- the simplistic and illogical notion that monohulls must be "better", otherwise why would so few people own multihulls and why would manufacturers not be making more of them?

Same goes for the smaller subdivisions within the type, where cats rule by sheer numbers and tris have finally gained grudging respect but proas are mostly ignored as anachronisms or dismissed by people who have mostly never sailed on one, but can tell you all about how hard it is to do.

I'm all for designs and ideas that are popular for good reason getting credit where it's due and for being realistic about the pro/con balance of any particular idea or form... I just don't like seeing further development hampered in any way and one big way that it happens is when popularity is equated with superiority and less popular designs and ideas are deemed "inferior" as a result.

You can't 'make' anyone not think that if they are convinced it's true, but you can and must remind the fence sitters over and over and over that individual needs and uses always trump statistical predictions of what you are "supposed to" want/need/expect.

I for one would like to see what boats people would like if they could have \*anything\* no matter how "impossible" it might seem- maybe something as simple as an empty spec sheet that let you ask for a 16' boat that sleeps four and has a shower, or something that can beat a UL 20 but costs \$500 to build, something that can regularly catch air like a sailboard...crazy, silly conceptual stuff, but the act of paring those requests down to something that \*might\* work is the essence of design and can really help to show what decisions are made, and where...and while the idea may never get past conceptualizing, the practical design and build solutions that might be offered along the way could prove invaluable to others doing something else entirely.

**Stefano**

June 28, 2013

OK Guys.. since I've tossed the stone in the pond, and it resulted in such a massive wave response I'd like to give a frame to what was a much more reduced objective in my thoughts.

For Small Try Guy: do not worry about time and effort: let's use "crowdsourcing" i.e. let us folks do the job. Sounds like Mark Twain suggestion in Tom Sawyer but still actually works ;-)

For Ian...we do not intend to list aaaallll design criteria and scenarios do we ?

NO... my intention at least would be to collect the so called "BAP" best available practices or hints or whatever you may want to name those.

The person providing the hint/practice/experience would also be so kind to share with us folks in what context this has worked.

I would really love to see something limited to class C EU design: 2 metre waves (crests not swell) and force 6 Beaufort, which is pretty much what anybody would try to avoid while sailing, unless blue water open crossings.

I'll give an example of mine just to give a rough idea:

Rig: wanted a short inexpensive rig fast to install. Took a 5 mt alu tube, stuck into a mast partner to be unstayed then changed into stayed mast to support a staysail and a genoa jib. Adapted an old Vaurien main sail with a sail pocket to take broken carbon windsurf mast and create a gunther rig. Findings: it does pretty good to windward due to the rotating mast and sail ( rig is conducted to a front hook as in catamaran masts). It is very economic and keeps the rig low and very economic.

Used on a 5 mt tacking proa and trimaran up to 20 knots short waves ( lake) + some pics.

This is something I would really love to read here: solutions to practical problems like "Why can't a decent cabin be fit into a 20 ft trimaran easy to build" ...it the Farrier 22 and perhaps others have succeeded ?

Foldability... rapid construction strategies... All issued of PLEASE direct experience.

Ok that's my five cents folks !

**ian**

June 28, 2013

Hi Stefano,

I agree that just listing all available possibilities is both too much work and not that useful, and that was my idea in suggesting a more solution based model that took some simple goal and looked at ways to achieve it, and the various drawbacks and how they might be lessened or eliminated, or whether or not they were even worth considering in the real world.



BAP makes sense, as long as you are willing to acknowledge that there are varying schools of thought...

take offshore passage making- one school says to sacrifice speed for brute strength to overcome heavy stresses from wind and waves you might encounter, and another suggests that fast passages with shorter exposure times can achieve the same results of getting to your destination in one piece and so favors light and fast boats that necessarily are less able to deal with the heavy stuff... if making offshore passages is the goal, then the "best available practices" may actually be "aaaaalll design criteria and scenarios" because people have made those kinds of passages in pretty much everything, with some amateurs in non-boats making it easily and "good" boats being lost with their ultra experienced crews.

"Why can't a decent cabin be fit into a 20 ft trimaran easy to build" is easy to answer \*if\* there isn't some underlying and unspoken rule being employed that says "X technique is inherently "difficult"", or that some design solution or material from another non-marine area can't be used or combined with more traditional construction methods, or that it must have almost magical qualities like allowing standing headroom while presenting low windage or sleek looks or the ability to be jumped onto from the spreaders without breaking it.

I'm personally surprised that more boats in general aren't using skin on frame techniques for things like cabins, and especially multis that can really exploit the weight savings...fuselage construction is easy enough for grade school age kids to understand and accomplish, is very low tech and very adaptable...you can stretch a very light knitted fabric over a few frames and stringers/tubes and then impregnate it with resin, after which you have a plug that is stiff enough to glass over with layers of structural cloth, laminate core reinforcement panels and framing and attachment hardware into, etc.

Or you can leave the entire affair soft and collapsible like a dodger, or some combination of the two...it's a basic design idea, well proven in kayaks and aircraft and tents and awnings, but there's not many real world examples to point to that are strictly marine uses and strictly applied to cabins....it's up to the cabin seeker to decide how much that matters and unfortunately many people just can't visualize things easily and conceptual ideas might seem vague and challenging, and an unwanted digression from a discussion of "real" cabins.

How "easy" this choice might be to fabricate will depend on the builder's skill set, tools, work space, etc....it's not "difficult" sewing as sewing goes (but could be if you're up for it), not difficult woodworking as that goes (but could be if you're up for it), not a tricky glassing job (ditto)...but someone well versed in one method and with no experience in the other might be instantly biased to think that the unfamiliar method is "harder" or that any extra work involved is "unnecessary".

#### **Stefano**

June 30, 2013

To Ian and all readers. OK I would like a 20 ft boat to have retractable/foldable amas and be able to stay at dock or motor with retracted amas.

I need a DIY solution... I like the "Dalliance" solution presented here but little new about it.

I also like the 20 ft Florida trimaran by Marples/Brown also presented here, but think there is too much flex in the akas to be lasting long ( when mine flexed that much, under a puff they broke. I want to stand on the safety side)

OK Folks: come up with suggestions and pics please and let's test this thread launch tentative. Thanks to small tri guy for hosting us.

#### **Small Tri Guy**

July 1, 2013

Great stuff Stefano. I will be getting in touch with Ron (hopefully this week) about getting s survey set up.

I just wanted to quickly comment on your thought about the "flexing crossbeams" on the Seaclipper 20. They are a very creative result of pushing John Marple's mind to come up with a simple-to-build, wooden, and inexpensive solution to the challenge of creating a folding tri that is easy for trailering. I can assure you that they're plenty strong. It turned out the little bit of "flexing" you can see in SC20 videos actually make for a smoother ride because the multihull platform isn't quite as rigid as one normally sees on the expensive, high-tech crossbeams put on commercial tris. I know firsthand John goes overboard with structural areas of a boat's design. Your question about it's design, however, is entirely appropriate ... I am not surprised you asked about it. You have a very sharp eye for that sort of thing!

#### **ian**

July 1, 2013

I agree with Joe that where weight or budget is a concern, with proper materials and smart planning a flexible structure may be far more of a success in real world conditions than something very rigid.

But in the case of these boats and their akas specifically a lot of that has to do with how the standing rigging interacts with the akas- if an aka needs to remain rigid to maintain shroud geometry because it's a tall fore/aft rig and the shroud chainplates are mounted out away from the main hull on a spindly aka then flexibility becomes a rigging issue as much as a hull related one. For that reason, on a 20' boat I'd suggest considering minimally stayed or un-stayed rig options that might save you that trouble whether the akas flex or not- even with rigid structures any folding or telescoping scheme that can operate "on the fly" will be far easier if there's no standing rigging involved or it is mounted to a non-moving part of the boat.

It seems like any boat that uses or could be adapted to some type of straight aka spar that is more or less level with the water could be made to do the telescoping action shown in the latest upgrade of "Dalliance", and if welding was an issue that same type of plate connector can be done in a suitably sized aircraft grade plywood, reinforced and finished as needed.

Otherwise it's hard to beat the tubes for something cheap and simple...just spend extra time lining it all up when building to avoid things binding up in operation, with dead equal diagonal measurements to square the akas up...if I had the room I'd use full boat width smller dia. tubes and make them part of the strongback that positions the larger receiver tube sections, and then cut the smaller telescoping sections apart after everything is glued and screwed in perfect relation to the other aka tubes.

One other consideration would be that rather than trying to make one beam reduction scheme do everything, consider having two operational widths available on the water that may not be the road legal width- you could still use regular slips and avoid end ties at say 9' or even 10' width and still be safe as far as stability, but maybe you'd need to demount something on land to make it legal width to trailer it.

Not trying to make it functional and safe as a boat at road width might save a lot of headaches and makes sense since road width has zero to do with on-the-water performance considerations unless you make it so...it might be a hassle if you wanted to go sailing after work and had limited time to set up and retrieve the boat and just wanted to pull a lever and go, but if you are going to be doing extended water time it might be worth the advantages.

Finally, one benefit to simple designs like the telescoping tube aka is that very often you can use basic shapes and materials like raw tubing that could come from anywhere and doesn't necessarily need to be brand new or purchased at full retail price...it's not good just because it's cheap but sometimes a simple design that comes in under budget because of good fortune can be significantly upgraded using that savings...it's hard to plan for running across \*just\* the tubing or other material you need, but it's good to consider upgrades during the design process even if you can't afford them at that moment, so that maybe if you are handed just the material you need and suddenly have 85% of your tubing budget to play with you could then upgrade by making the telescoping operation easier via better bearings or tackle or hydraulics or something that you at least considered enough to not make it impossible to add later on.

The point is that just by being simple that telescoping tube is more adaptable and upgradeable than a very fancy scissor hinge or even a leaf hinge that requires precise geometry and rigidity to maintain it- but it doesn't \*have\* to stay simple and can be built upon...and for safety and consistency of trim and steering it seems that keeping the fore/aft relationship of the hulls the same whether deployed or retracted would present the least number of issues to overcome, so for your use purposes and DIY build the telescoping tube seems better than a pivot arm no matter what axis it swings on.

### Small Tri Guy

July 1, 2013

Ian makes a good point about flexing beams affecting a stayed rig. That could definitely be a problem in certain design models. The SC20 features a "little bit" of flexing" ... not too much, just a little bit. I've had a fair amount of correspondence with individuals who've sailed the SC20s that have been built so far and there doesn't seem to be any problem at all with regards to the flexing of the beams affecting its rig. As far as the SC20 goes, its overall performance has actually been better than Jim first imagined it would be, as it was designed to be a really "cheap and rugged" adventure type of boat ... something that would allow a sailor to sleep on board, if necessary, while hanging out for a week in a harsh place like the coast along Big Sur. To my knowledge, the big thing that didn't work out (as originally conceived anyhow) was the ability of the boat to let a sailor sit inside a secure cockpit at the back of the boat (if they wanted to) in order to sail it with footpedals (Windrider style). It can still be set up for straight seating and footpedal steering, but not from within the built-in seated cockpit (as per my last discussion with John Marples on that topic last year). So I am not sure if that is still the case. As far as standard sailing setup goes, however, the SC20 owners have been really liking their boats.

ian

July 1, 2013

One other thing I'd keep in mind when trying to convert something to a telescoping aka arrangement or other setup designed to allow for operation at less than full width is that low volume amas are probably going to be less desirable for operating at narrower widths, especially if they normally rely on a very wide boat stance to increase their righting moment.

Fine ends could present a similar problem where even if the hulls stay oriented identically fore/aft as they slide on tubes, the resulting wide and narrow versions of the boat as a whole might have significantly different pitch motions...it's not \*just\* heeling or pitching that you need to worry about, but those forces combined that want to roll you over diagonally...that usually seems to deal the final blow to trimarans sailed beyond their limits, with any particular pitchpole or capsized event often being some of both. Of course Stefano won't be sailing the thing hard when reduced in width, but those kinds of boat motion considerations will definitely affect how well the reduced width boat does that task and factor into overall safety margins.

Because of these volume considerations, some older designs with straight akas might be very well suited to this type of boat with the necessary telescoping modification... it's a bit shy on the desired length, but the Cross 18 could be fitted with the "dalliance" style telescoping tube akas and it seems that even an existing boat could be retrofitted pretty easily-

<http://mysite.verizon.net/res78939/sitebuildercontent/sitebuilderpictures/cross18assm.jpg>

<http://smalltrimarans.com/blog/wp-content/uploads/2010/03/cross-18-trimaran-photo11.jpg>

the Dobler Triad is another with similar geometry and potential (to my eye at least) and a foot closer to the 20' mark-

<http://www.duckworksbbbs.com/plans/dobler/triad/index.htm>

Looking at the few pics of both boats rigged, I see that the Dobler examples have a diamond stay layout with shrouds led outboard of the main hull, and the Cross examples have a very simple fractional rig stayed by two shrouds led to the amas and a forestay-

<http://smalltrimarans.com/blog/wp-content/uploads/2011/12/dobler-triad-trimaran-built-by-mike-eaton-4.jpg>

<http://smalltrimarans.com/blog/wp-content/uploads/2011/11/cross-18-trimaran-in-utah-1.jpg>

Both would require some re-thinking to work with the sliding amas, but monohulls keep rigs up without any akas so it's not impossible...but compare the Cross' simple aka design with a boat like the Trinidad that has very extreme beam on long aka tubes and needs water stays and the like to compensate and you'll see how the geometry isn't the only factor to consider when figuring out how to make this kind of convertible tri happen-

[http://www.biekerboats.com/Bieker\\_Boats/Trinadno\\_Images.html#2](http://www.biekerboats.com/Bieker_Boats/Trinadno_Images.html#2)

even if you managed to engineer the akas to handle the loads without needing stays and moved the chainplates inboard, the amas are so high off the water when the main hull is on her marks that the narrowed boat would need to heel like crazy just to get them in contact with the water, unless you loaded the boat up to get them to submerge more.

That brings up another possibility- there may be a benefit to having some ability to take on water for temporary ballast weight in a boat of this type to compensate as it loses some of the natural stability of the wider stance, or to dampen some other motion or re-trim the boat for one operational mode or another. You could have a very light, fast boat that could be made far more solid and stable at the dock, without that annoying flip-flopping between amas that so many tris do at rest, or you could trim the narrowed boat with the bow slightly up for better motoring performance or seahandling.

You could get all fancy with dedicated tanks and pumps, or just carry a jerry jug or two that you can fill up and move around/lash in place.

**Ron F**

July 1, 2013

Stefano — I did provide answers to your questions about Dalliance's amas & akas, as well as a couple of links to photos. But I did so in the Dalliance article comments.

**Ron F**

July 2, 2013

Ian,

My telescoping akas do not make Dalliance a variable beam craft. The mast is supported by a fore stay as well as the upper & lower port and starboard shrouds. The shrouds are attached to the aft aka brackets on the amas. So it is not possible to reduce the BOA without first lowering the mast.

So yes, the full width is needed and used for stability. I started with the 12' beam when I was using the low displacement amas. But I still like the beam, even with the new 100% displacement amas.

**ian**

July 2, 2013

Hi Ron,

I was pretty sure that was the case but have been using the boat as a good example of the kind of telescoping aka setup that with a few modifications might be fairly easy to adjust on the water while maintaining seaworthiness, compared to something like a scissor hinge or horizontal pivot.

It would of course depend on the rig and other factors but that type of telescoping aka might also be made to work for on the water beam reduction with a traditional stayed rig by just keeping any standing rigging (or waterstay) connections on the fixed inboard portion of the aka, leaving the smaller extension tube to move independently when desired.

In practice it would likely be something less than "easy" to move manually, but at least wouldn't involve a lot of lifting or a hinge's pinch points to worry about...my gut tells me that the worst case panic scenario for any variable beam craft would be getting caught in a narrowed state by weather or sea conditions and having to go wider quickly for safety's sake...hard to see much of a need to go narrower in some emergency so quick deployment to full width seems like the bigger priority.

Of course the mast is another can of worms that must be considered whether you are sailing with it or not- for something like Stefano describes that is narrowed just for docking and motoring, you really won't be \*needing\* the mast up and so if it's a tall-ish stick, taking it down first may be the simplest solution of all to dealing with a corresponding loss of side to side stability when the boat is narrowed- the lowered mast itself will act as ballast to some degree and the more horizontal orientation may also dampen some of the boat's motion underway, like a wire walker's balance pole.

The drawback of course is that now your narrowed boat with the mast down is probably far longer overall, and you risk whacking the far more sensitive rigging parts when maneuvering with the mast hanging all over the place.

**Stefano**

July 6, 2013

@Ian: narrowing down and side stability issues. My view over this problems is as follows: If the akas retract in a parallel double "barrel" fixed part, a slight angle can be given. This would solve two issues: the first being sure the clearance of the flying ama is well above small wave crests. The second, If when retracted the amas get more immersion, the tri would get far more stability. Putting the weights where they belong i.e. on the lower part of the main hull ( water, motor, anchor, food) and cockpit ( crew), and keeping at least a part of the leeboard immersed, I would not see the need for lowering the mast when motoring.

My idea of a 21 footer would be 8 ft when folded, and an air draft (mast + deck hight) of about 25 ft, with a rig weighing about 56-60 pounds in total. Stability with two substantial amas ( 80% of displacement or more) permanently skimming, or a few inches below waterline, should be plenty to carry such a rig in all enclosed navigation areas. A quick mast lowering system perhaps with a forward "A" leverage frame would certainly do no harm and serve many other purposes (bridges, trailering) if not this one.

# Adventures of Building a Foam Trimaran in 6 Weeks

June 21, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Everglades Challenge, Finger Mullet, foam trimaran

## Comments

**ian**

June 21, 2013

This is a great example of the kind of very robust internal structural reinforcement that can be built into foam cored panels if you are willing to put in the time and extra materials-

"The most indestructible way that I found to layup is to sand the foam pretty smooth – no fuzz – layup one side, allow to cure, then using a soldering iron "drill" holes from the clean side down to the glass on the cured side. The iron will melt the foam quickly but not the resin and glass. Once you have your holes, fill with only slightly thickened or plain epoxy and let it cure. Some holes will have to be done twice because the foam absorbs some epoxy. They can still be wet when you put on the top laminate and when it cures both top and bottom laminates will be bonded together making the piece nearly indestructible. I did this on the deck at two-inch intervals and it feels like walking on pavement in bare feet. I did it on other parts of the boat as well, just not as frequently because it wouldn't have the same loads. If you make a test piece you will realize you cannot delaminate the glass past the first epoxy "pillar", this will contain any damage within that zone. The drawback is this is very time-consuming, giving your brain time to calculate the dollars being literally poured down the holes."

cordage or roving saturated with epoxy and laced through the core so it contacts both outer glass layers can do the same thing, and you can use dado-like kerfs and this kind of layup to make up corrugated panels that bend predictably and need less external framing to support them when used for decks and such.

You can also use a larger hot metal tube to core out a foam sheet in strategic places and then glue in short pieces of the same sized tube cut so the ends are flush with the outer planes of the panel when inserted...it sounds complicated but it's all pretty simple operations and the result is a very high tech high strength composite panel with many of the properties of honeycomb.

You have to do the math and balance weight and strength gains against each other and other factors, but it's an option.

Or you can glue splines and structural extrusions into those kerfs, add internal blocking for hardware mounts...pretty much anything you're willing to spend the time to integrate can be done and the various ribs and grooves and connections that get made can all become part of the overall load bearing structure whether they function primarily for that purpose, or it's an icebox or tubular electrical chase glassed into the rest of it that also adds strength.

Probably the ultimate potential drawback is that this kind of structure can be nearly impossible to repair after a major accident, as it often requires doing it as part of the original build...you can plan for big repairs a bit and make life easier if that ever becomes necessary by minimizing the spread of damage, but cored construction can be seriously compromised or even totaled by damage that might only result in a couple of days out of commission for a plywood or laid up FRP hull or wood/fabric airplane wing.

The fact that every part is helping all the others and that allows for light underpinnings is one of cored construction's main attractions and also the Achilles heel- when one part is damaged or removed, something else has to take the load and unlike timber frame or plywood or a thick laid up FG hull the foam has almost nothing in the way of reserve strength that can operate independently of the fabric/resin structure bonded to it and as things go south the damage just cascades throughout the structure, or can.

**stefano**

June 25, 2013

I almost didn't sleep over night thinking of the amount of holes to drill and epoxy to pour and cure to connect two skins across a poor core material.

Then a possibly better solution came up to my mind and I slept as a child:

why not just poke holes with a drill ( put some stopper on the bit) or melt it as proposed, then INSTEAD of pouring epoxy, stick an epoxy wetted wooden cylinder/peg (1/4 inch or more) just shy of the core material and go for the second skin over it. It would perfectly fit the bill of connecting the two skins at lesser weight, cost, and even better compression properties since the fibers would be aligned with anticipated loads (i.e. compression from outer skin).

If you have the already tiny-holed polystyrene blue foam, I found out that bamboo skewers of about 3mm diameter cut with pliers at required length perfectly fit the bill and make the process so much faster.

**stefano**

June 25, 2013

one more addition: polystyrene fumes are very toxic. In Europe now hot wire cutting is forbidden for this reason ( I am told by a professional) so wear perhaps and adequate carbon filter mask or respirator.

**stefano**

June 25, 2013

Sorry Ian.. I dashed at commenting not having read your post: quite the same thing !

**Ray**

January 7, 2015

I find your suggestions inspiring as I am planning a 14 foot foam version of the bunyip 9 scow. Is it much trouble to hot wire through the gorilla glue?

Ray from the spacecoast

# Very Unique Small Trimaran Approach – Part 4

June 29, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Steve Curtiss, trimaran sail, twinsail, unique small trimaran

## Comments

**ian**

June 29, 2013

Hi Steve,

Congratulations on reaching this milestone...and thanks for sharing the back story. Its really neat to see something at the conceptual stages and then see the finished product and how the various parts that might have raised questions on paper actually work in practice...the mast steps in particular are pretty amazing bits of engineering that on paper might appear just too simple and small to stand up to the loads that we can all theorize about- but they clearly function as planned.

A couple of questions-

Are the wooden parts just a mounting block/spacer or are they intended to also provide strength or extra stiffness...in other words did you engineer the space frame as one unit that can stand on its own and the board as another, or do they need to be combined to be strong enough to work?

How did you do the actual attachment of the space frame to the main board as far as fasteners/adhesives? Did you use any of the existing foot strap mounts, or embed your own mounting points into the board's core, or through-bolt things, or...?

This has been a big concern in my similar project- I'm using a board with a molded plastic shell rather than a traditional glass over foam one and so I can't really do any kind of exploratory poking into it that can just be easily spot patched if I abandon that particular hole, and it's pretty hard to get a lot of detailed info on just what the cores have in them as far as reinforcement that might get in the way of some machining operation or proposed attachment method.

And the footstrap mounts have been pretty useless in practice- many of the screws were rusted in place and even after soaking in penetrating oil the inserts just couldn't handle the torque to break the screw loose ...so now many of them just spin and will have to be dealt with along with creating better attachment points.

The steering is intriguing and I'm wondering if you are using the board's original daggerboard or not and how that may or may not have contributed to the rudder design and positioning (and/or rig position?)...also wondering if you built any mechanical advantage or quicker steering ratio into the linkage to keep the range of motion smaller and more manageable in the small space available?

I'm hoping to do that with mine so that the entire tiller sweep is only about 20° or so but will sweep the rudder itself through its entire stop-to-stop range, via blocks/lines and different length bell cranks- a long cockpit tiller arm on one pivot connected with a line to a shorter one whose pivot axis is the rudder shaft.

The part about dealing with the lake authorities also makes me wonder how much you have dealt with or thought about registration...there seems to be a gray area as far as whether or not this type of boat needs to have CF numbers or not- anything over 8' that sails needs one \*except\* windsurfers/sailboards, but how much modification is allowed before it's not a windsurfer anymore is up for debate.

In my research I see where the USCG considers a hand held sail arrangement as being part of the equation, but I can't find any specific statutory definition in CA law that makes that distinction or that cites any federal reg that codifies what is/isn't a sailboard based on rig type.

**Tom Williams**

June 29, 2013

Your amas seem different from the earlier articles. Are they now hobie amas? Also, I wonder what kind of speed have you experienced so far? I really like the concept.

**Steve**

June 30, 2013

Hi Ian,

Thanks for the interest and questions. The wood parts are just spacers with padding on the bottom. I designed the boat so that the major loads go through the frame rather than the board, even the forces from the main sheet. That way the board can be light and easily handled, and I don't have to guess what kind of twisting, bending, etc it can take.

The fastening thing is a tricky area. I purchased a Mistral Superlight II longboard that had lots of footstrap holes. They have been very good—strong and well sealed. At the forward end of the frame, where there are no strap holes I made a bracket that goes from the frame crossbar to the mast track. This is also a strong place to fasten. In total, I have five fastening points for the frame, two at the stern end of the frame, two midway, and one at the front (mast track). The front is a screw with lock washer, the back four are release pins in through brackets. So far they have done well under the relatively light forces they see. I'm trying to stay away from piercing the board.

On the rudder, the blade is one I had from my M3 project, and it's a nice foil.

I machined a bracket to fit up into the skeg hole and support the rudder pivot at the bottom, and then made a bar from some strap mounts on the stern to hold it at the top. Machining the tapers for the skeg mount pc was a pain. The steering is arranged so the bow turns the way you move the wheel, but there is no reduction. I get about 45 degrees each way, which works well. I learned from a previous boat (M3) that fast boats don't need much rudder angle, and in fact can get twitchy as the speed increases, so I wouldn't want to have any multiplier in there. Also it's important to keep slop out of the linkage, so the little adjustments you make are solid.

Sounds like I may have to check with the Coasties and see if I need to register.

Tom,

Yes, the amas in earlier articles were custom made from foam/fiberglass and the ones I'm using now are from the Hobie Adventure Island. The ones I have now are lighter (16 lb ea) than I could get with the prototype foam/glass process (no mold), way cheaper than something custom, and fairly bulletproof for dings and rough handling. Also, they give me an excuse to wear my Hobie hat.

Speed so far in ramping up is about 80% of average wind on a beam reach, even in low winds. And it will go 70% of average wind on a tight close reach (upwind), which I think is unusually quick. I'm not much good at driving it downwind yet, but I think there is good potential there. I will have more to report as the summer progresses.

Keep the sails up

**ian**

July 2, 2013

Hi Steve,

Thanks for the response and details...it's all very helpful.

I too am using the mast track as a strong point and figure that if that bit can't hold up to sharing some load then I've got bigger issues. I had hoped to avoid piercing the skin of the board but probably will, to sink in and epoxy some aluminum tubes that will act like stanchions and will integrate into the rest of the framework, about six on each side, one pair being solid mast supports.

Since the mast will be raked aft, it seems natural to do a similar tubular step and then the resulting tripod could be embedded in a way that places any loads more across the tube on a diagonal in shear, rather than on the tube/foam glue joint in line with the tube. I'm also considering making my own inserts for other strong points using FG rod and some tubing and epoxy, that along with a cone- or wedge- shaped insert could be made to fan out larger than the entry hole so it can't pull out...something like this, but with a mounting lug or receiver on the non-pointed end-

<http://content.westmarine.com/images/catalog/large/13914593.jpg>

basically a modern variation on the ancient treenail fastener, which is essentially a rivet-

<http://www.penobscotmarinemuseum.org/pbho-1/sites/default/files/collection/Treenails%20or%20Trunnels.jpg>

But even with everything just tie-wrapped together and lashed down to the single mast step point, I can grab one aka and flip the main hull over on its sawhorses, so I think I'm going in the right direction...and part of using a has-been board is that fact that I can wreck it and only be out \$50, so I'm not going to stress too much about some catastrophic issue from poking a hole where I need it.

you make a great point about the steering ratios and speed...it's one area that will definitely get the adjustable hose clamp assembly before nailing anything down permanently. One possible mitigating factor is that any force multiplication or gain in range of motion you might get comes at the expense of the other, so that cable and pulley mechanical steering that requires very little input force will be less responsive, and super responsive steering will tend to require higher input force to make that move possible.

In practice this hopefully means that the higher input force required to move the stick will lessen the possibility of an accidental over-correction; a vehicle might change direction in a snap with minimal movement of the wheel/tiller but making that wheel or tiller travel that small distance might require a high enough degree of effort that you have to \*want\* to make it go there, and there's a built in incentive to keep the inputs minimal- when you can feel the twitch in the steering feedback the moment you take the controls, you know that just cranking everything hard will likely not go well, so you are naturally more careful and if you aren't the vehicle will remind you quickly that it's not made for lollygagging.

Of course where it all goes south is when you are using that greater force to hold a course and suddenly the wind shifts or dies or you go off a wave at some odd angle and your "normal" steering input is suddenly far too much...it will definitely require some degree of attention even when dialed in, kind of like driving a high performance car or motorcycle with very responsive steering on inconsistent road surfaces...the performance potential can easily overcome the environment and most bad crashes involve some degree of operator error.

The rudder and steering was also why I was wondering about the stock board and if you were using it- how closely coupled the rudder is to any keel or board and/or CLR will play a big part in steering response and required input force as well...in my case I need to keep my CLR forward because of the rig and so I'm not hanging the rudder off the stern...that shorter distance between the rudder post and CLR has the potential to also quicken the steering response but at some point the short fulcrum can't be overcome by the rudder force and it just mushes out and any directional change is just the result of drag.

A too closely coupled rudder and board combo could easily create a serious high speed control issue as well, but I think maybe some of that "mush" and braking effect from rudder drag may be desirable to help smooth out the kind of overly responsive handling you describe, while allowing full range rudder control without having to swing the tiller in that same arc.

We shall see :)

**Steve**

July 3, 2013

Hi Ian,

I probably haven't been real clear about the details, but I'm using the windsurfer daggerboard as a leeboard, hung on one side off the metal frame and right next to the board. The stock daggerboard slot on the Mistral board (or any longboard) is too far aft to be of use in my design, and locating the daggerboard off center works fine. Hobie does it on the Adventure Island-the mirage drive fins are centered in a slot, but it has a daggerboard about 10" off center as well. The good news about my setup is that it swings up and down and the mount can be moved fore and aft to adjust the balance. The bad news is its a leeboard, and creates a bit more friction than a daggerboard in a center slot. The location right now seems to work well, and is not close enough to the rudder to make steering overly sensitive.

On the tiller feel thing, I've noticed it can be helpful to put some light smooth friction in the tiller mechanism to damp it a bit. Another thought, as you get up to higher speeds (10 kt+) on your hull, if you find your rudder stalling, I've spent a fair number of hours finding fixes for that. I'd love to see pics of your progress.

**ian**

July 3, 2013

OK, now that I know what to look for and where I see the leeboard in the pics of the boat on the lawn, and the location and relationship to the rudder all appear pretty conventional unlike the standard sailboard centerboard slots that are oriented so far aft by comparison.

I think most conversions of this type will find the standard board trunk too far aft to be of use as a primary means of generating lateral resistance, but I'm thinking that perhaps a cut down board in that slot might be of some benefit as a way to trim the CLR fore/aft to adjust weather/lee helm tendencies...a stubby fin in that far aft position also might help straight line tracking off the wind in these shallow, flat hulls that don't have the natural tracking ability of long/skinny/deep hulls.

I'm using a \*lot\* of scrap/repurposed materials and parts for my ultra-mega-low budget project so there are lulls in the progress as I scout out just the right bits, that in turn may require some refinements of where I have everything temporarily lashed together...there's still a few "placeholder" parts involved that at this point might just confuse things as much as they clarify, but once I have things nailed down a bit better I will definitely share some pics here...FWIW I do a lot of repurposed and recycled art/design projects on minimal budgets and tend to approach these things kind of like a kit, where I gather up most everything I will need in a big pile before doing any final assembly, rather than jumping in feet first with preliminary fabrication and then designing around or paying extra to reconfigure what I have already committed myself to if something changes down the road.

**Andy Gratton**

August 5, 2013

Hello - I see your very unique project, quite interesting. It looks like it would be fun to sail. I like multihulls as well as windsurfers, anything that sails fast.

I am looking for a pedal for a mast track such as you have on the Mistral Superlight II board. It doesn't appear that you are using the pedal with your arrangement. Would you be interested in selling it? It pops off the pivot bar and is readily removable.

Thank you.

## 4 Short Trilars Trimaran Videos

July 7, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Michalak, Trilars trimaran

No Comments



# Catri 25 Trimaran Development Project

July 10, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Catri 25 trimaran

## Comments

**ian**

July 11, 2013

I've been really excited about these boats since I first ran across a video of the 24 footer; it's a really fresh approach to balancing the pros and cons of foils and even non-foilers stand to reap the benefits of testing these ideas.

What I like most is that the designer has really embraced the idea of the trimaran as a single unit, rather than three individual canoe hulls whose forms more or less stick to the rules and principles of canoe hulls designed to work independently...he's embraced a fairly radical trim profile where crew weight very far aft is used to make up for hulls that by themselves would be unsuitable for much of anything due to the way their buoyancy is distributed, but together can interact to bolster their strengths and mitigate their weaknesses, and the boat becomes much better than the sum of its parts.

The videos and crew accounts I've been exposed to mostly show it to be a solid concept that trades off a bit of ultra high performance for a far simpler, mostly passive foil assist scheme that tosses out the idea that a foiler must be kept above the waves to get any benefit from the foils...as expected it's a bit draggy in light airs but by all accounts the boat seems to get even more stable the more wind it gets and it's still remarkably stable and easy to handle when other boats are backing off for fear of a major crash.

All that said- the production history of the actual boats is spotty to say the least, with at least one commercial manufacturer going out of business and others giving up on the brand, and some pretty serious allegations of unethical and even criminal behavior flying between at least some of those builders (and plan/kit purchasers) and the designer/patent holder, and vice versa.

I don't want to cast aspersions here; there's always at least three sides to every story and I would like nothing more than to see this project and the brand go on to do great things and make lots of sailors happy and the designer/builders rich and all the animosity chalked up to a misunderstanding...but at the very least I'd highly recommend that anyone thinking of getting involved as a buyer or investor or just to help the project along really do some research beyond the promotional stuff (just google it) and weigh your decisions carefully.

**Mareks Justs**

July 17, 2013

So, first of all, thanks for this post. I am proud of working with our designer Aldis Eglajs. If you are working with inventor, you become inventiveness too, and its true. Our designer has a huge multhihulls' designer experience. Also he is a Latvian inventor with many inventions.

Our new founded company Catri AL Ltd. in Latvia is an exclusive CATRI trimarans manufacturer, and this is mine initiative as I am related to Latvian Inventors' Association. Unfortunately we have no successful governmental funding this-like projects (inventiveness) in Latvia. In spite we decided to start this new project - CATRI 25 as we can see many benefits not only for business but also for usual sailors or those who use waterways. There are three keywords: speed, stability and safety. We invested our money in prototyping (for yachting its equal to real yacht just bit more expensive as it is made by on-off technology), and as its a prototyping - we couldn't foresee all expenses. We have all benefit from having [support of this project](#).

# Holopuni OC3 Double Outrigger Sailing Canoes

July 18, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Holopuni OC3 Sailing Canoes, Outrigger Sailing Canoes

## Comments

**Stefano**

July 21, 2013

Great stuff ! exhilarating ride too... MOre than a hint of how to reconvert some of the "Rapa NUi" canoes that had bcome very popular on lake Bracciano close to Rome, meant for 4 or 6 paddlers and having one leashed ama ( respectively 9 and 11 meters long).

One question to our hawaian trimaran fellows: what kind of fish where you trying to catch while trolling at THAT speed ? !?

Fastest speed I experimented while trolling effectively was 6.5 knots : two bonitos caught on a floating plastic lure...

# Cross 26 Trimaran POCO LOCO Sailing Again

July 26, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Cross 26 trimaran, Norm Cross, poco loco trimaran

## Comments

**dale dagger**

July 26, 2013

Great post ! Thank you

I owned Puff Norm Cross' own 26. I sailed her to Puerto Vallarte.

The sail down the coast of Baja was a thrill. In 12 knots of wind we caught and surfed almost every wave we came across. Great sailing boat.

I currently have a Jim Brown 34 which is almost as small and I hope as fun to sail.

**ian**

July 28, 2013

It's really great to see this boat get saved and put to good use again...the older style cabin tris with solid wing decks have fallen out of favor as slip rent has gone crazy in many areas, but that's a storage issue and this boat is as capable as any other 26 footer for just about anything you'd ever want to do that isn't state of the art racing....it's about as perfect a small boat as you could ask for for the Channel Islands and SoCal/Baja weather and conditions.

And that's with a truly amazing amount of well thought out living space below, storage, etc. that is comparable to powerboats of the same size.

Of course I'm glossing over the fact that that Travel-lift you hauled out on is a big one and they charge the same for a little tri or a huge powerboat, so it's not \*just\* an issue of slip rent...it's a lot of boat in terms of performance/accommodations but that comes at the cost of it being physically a lot of boat in many respects, and this type of tri needs the care and resources that any traditional boat does.

Sometimes more like triple the amount- when you add up the hull topsides and trunk cabin and cockpit w/cubbies and underdecks and hatches that all need to be kept painted the total surface area is nearly identical to the exterior of a building of the same dimensions. It's like painting a two car garage, but with lots and lots of detail work and the whole thing is on jack stands and you have to paint underneath too and make it all pretty, using very expensive materials. And you have to have the whole garage ready to move by Monday morning or it's more lay days on your bill.

It's a chore of the highest order along with all of the other stuff but well worth the effort if you then get to experience one of these boats in the ocean conditions its really at home in, and without having to worry about tired parts breaking.

Also interesting to consider the costs involved in buying a used boat like this for a couple of grand, putting a few more into repairs and then eating the mooring fees for however long you own it, compared to the costs of a newer production folding/trailerable boat of similar size and performance/accommodations that is virtually maintenance free and can be stored at home (maybe).

A slip or mooring comes with the benefit of zero assembly/launch time or need for a trailer, and depending on the area you might have to go many years to eat up the many tens of thousands of extra dollars you'd pay to get into even a used commercial folder just to avoid slip and haulout fees.

**Kim Morri**

July 30, 2013

So proud of you Brandon. It's was truly amazing watching the tranformation. And I know what a labor of love it was. You'll enjoy many many years on her! Congrats.

**LM**

July 31, 2013

Beautiful job. I owned the Cross 26 "Tres Patas" in the mid 70's. Totally loaded the boat and sailed from Galveston to the Bahamas. My wife and I spent a year aboard and never had an issue with that great design. Still my favorite. LM

**Brandon Walters**

August 1, 2013

Ian, your absolutely right about triple the boat. The solid wing decks give a lot of space, but they were a lot of work too. This is one of the classic designs with a 15 ft beam so I did get lucky enough to use the small travel lift at the yard, but only by an inch on either side.

Interesting comment on a new folding boat vs. slip fees. Counting my time working on the boat as free, what I have into it, and my current slip fee, I figure it'd be about 20 years until I reach the cost of a new similar sized Corsair, maybe 15 for a good used one. And with what I'm using the boat for I'll take the extra space/comfort of the Cross over the speed of the Corsair.

P.S.

Your older article on your C24 is one of the things that motivated me into getting this boat in the first place! So Thank you Ian!

**Art Larson**

December 9, 2013

Loved your re-build. Built a cross 26 in the mid 70's. Still own it, but needs complete replacement of polyester/glass with epoxy/glass. Don't know if it is worth the effort.

Built it with hinged ammas so I could trailer home in winter. Also, hinged Al. mast that I could raise with a simple hand winch. Plenty strong for cruising Puget Sound.

Major re-design flaw was a shallow keel so it would fit on the trailer. Sometimes could not get through irons on a tack, and had to jibe. If re-built will add dagger board to shallow keel.

Double slip fees for a 15 ft. beam have kept it out of the water while I sail my Balboa 26.

**Jack**

December 15, 2019

About the same era was Crowther's 26' Zephyr I built and sailed LA, Big Sur to Frisco Bay. Nearly every night here on the Mojave Desert I imagine sleeping aboard in the tri. Unbelievably comfortable, rocking about and waking up in the same position. Big boats . aren't as nice in many ways. Downwind is too fast to enjoy the ride so do jib only! Added centerboard and used double rudders for sailing in 24". Off Gaviota did 15+ kts reach through phosphorescent rocks & glowing shoals going into the gate at 2AM.....wow!

**Jack**

December 15, 2019

THE JOY OF SMALL-BOAT SAILING

By JACK LONDON .....covers it, and on a TRI. it's better.

(off Jack London Square there's a turning buoy, and the Polar Bears swim around a buoy in Exposition Park.....wow!)

**Dale Dagger**

December 16, 2019

I sailed PUFF a Norm Cross 26 to Mexico. Blazing down the outside of Baja was a joy.

Reaching down wind, it took just a small push on the tiller to push the boat down the face and into a surging surf. Small tris are a rush.

# Ebook by Russell Brown Shows Boatbuilders Epoxy Techniques

July 26, 2013

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: boatbuilding with epoxy, epoxy book, epoxy ebook, how to apply epoxy resin, how to apply epoxy on fiberglass, how to use epoxy, Russell Brown, work with epoxy

## Comments

**Hilbert Gorte**

July 27, 2013

thanks for letting me know about the epoxy e-book. just bought it. greetings Hilbert.

**Gregory Potter**

September 14, 2018

My wife and I wish to build a small trimaran as sailing is new to us. Our intentions are a dream of circumnavigation of Australia maybe further. Both having minor learning disabilities we figure lake and river work in a small boat is best to get experience. So we would like to build a small Trimaran 18 Foot to go away overnight or for the weekend. We live in Seymour Victoria and have the Goulburn near by. Advice on best builds would be appreciated. Light as possible as we only have a small car. We also need to drop the mast easily as people block rivers with bridge's.

**Raymond**

May 12, 2020

I have bought a 37' Searunner

It is being hauled out this week. Looking forward to fixing up and maybe some minor improvements.

Can not afford it but getting crazy ideas about foil assist.

Repairing some dry rot etc.

New hatches, portals, and stations. Like to remodel the stern castle. Will see what I can get done!

# Trimaran Lobster Boats in Maine

August 1, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: trimaran lobster boat, trimaran lobster boats

## Comments

**ian**

August 2, 2013

Here's a PDF with slightly more info about the design and process or developing it-

[http://www.penobscoteast.org/documents/IslandAd-VantagesColumn4of4FINAL\\_000.pdf](http://www.penobscoteast.org/documents/IslandAd-VantagesColumn4of4FINAL_000.pdf)

Just to give a sense of scale to the pics, the final boat is 38' LOA, which still qualifies as "small" for a commercial fishing boat...that's what got me looking for more data, because at a smaller size that boat would be seriously lacking in cargo space for both traps going out and live catch coming back, which is a major factor in how much fuel you use to get each lobster back to the dock where you can recoup your costs.

Obviously fuel costs go up as the boat gets bigger and there's a tipping point, but the bigger boat is a better gambling machine- any fishing boat that gets skunked wastes its fuel but the bigger boat can have the bigger payoff when the fishing is good, while the little boat hits its capacity faster and has to use more fuel for more trips to catch up, negating much if not all of the operational cost savings of a smaller motor and hull.

Anyway, it certainly brings to mind other powerboat designs like the "cathedral" hull concept exemplified by the Boston Whaler, except that all of those types of boats are intended to plane and this is a displacement hull...the articles speak of it as three hulls but at least in the available pics it appears more like a fairly traditional fishing boat hull that has had cylindrical slots taken out of it to minimize the cross-sectional area...wish there was a view that showed the forward sections and entry.

So there's another question for the ages- at what point can a bi-laterally slotted monohull become a "true" trimaran, if ever? How high do the slots have to go, and how much sectional area needs to be removed?

Conversely, at what point would lowering the solid wing deck of a trimaran with three hulls turn it into something other than a trimaran? Is water contact the point at which that surface just becomes part of one very wide monohull with deep channels running down each side?

Not that I care really as far as picking a side and defending it, but at least in powerboat design and especially working boats there's far more tendency to make hull shape follow the deck profile rather than the other way around, and the various sponsons and oversized strakes and channels you see are often there to make a big deck area possible while still being able to drive the boat efficiently...sort of de-bargifying a barge.

If traditional looks wasn't such a big deal, a more traditional trimaran would make for an excellent work/fishing boat especially in jobs that require a stable platform with lots of open space to move or lots of winching of things off the bottom. The other benefit is that when you aren't trying to optimize them for sailing with very narrow/deep hulls, keeping wetted surface low by flying an ama as soon as possible, etc, trimarans have pretty incredible weight carrying capacity before they become unsafe so while a tri might not go any faster than the same sized monohull when it's loaded down, it will likely still be using less fuel to do it and might be lot safer in big seas with lots of weight aboard.

I can't think of a harder sell though (except maybe getting Maine lobstermen to use Boston Whalers), and so it's very telling that some of the most staunchly traditional and famously skeptical fishermen on the planet are now adopting some of the benefits of multihull design principles.

**Small Tri Guy**

August 2, 2013

You're right about the "small" Ian. I've re-thought whether or not that designation is attributable to the actual lobster boats themselves that will be used. (Perhaps I posted in haste :-)

That being said, trimaran sailor Tim Mann (from Hawaii) echoed the same comments last year about "trimaran work boats" during his conversation with Jim Brown (<http://outrigmedia.com/outrig/welcome-to-multihull-conversations-with-jim-brown>). He is convinced that a properly designed trimaran could be great fishing boat ... and he has had a good bit of experience in that field.

**ian**

August 2, 2013

Something I just learned after being inspired by this post to look further into this type of design and preceding ones is that the "cathedral" style hull was actually an adaptation of the Hickman "Sea Sled" concept, which was a kind of proto- tunnel hull shape that was a groundbreaking design but suffered from putting heavily aerated water directly in the propeller path...the center "hull" of the more advanced cathedral hull was actually put there to push that foamy water out of the way, rather than being the main hull element that is assisted by smaller support hulls the way most trimaran designs are developed.

So at least the cathedral hull design is more of a monohull-turned-catamaran by inverting the vee (the Sea Sled), that eventually grew a center hull to overcome a design flaw particular to propeller drive, as well as to even out its sea handling properties-

<http://www.ultimate.com/omc-boats/cole.html>

<http://www.boatdesign.net/forums/boat-design/heres-true-sea-sled-story-circa1985-4654.html>

just for comparison, here's a shot of one of Cole's later "Airslot" designs-

<http://s307.photobucket.com/user/posi79/media/carsBOATStrailers/Boat/WellCrafttrihull.jpg.html>

**Small Tri Guy**

August 2, 2013

Wow, great links Ian. Great info! Very interesting.

**ian**

August 2, 2013

I think I got the wrong link to the organization doing the lobster boat-

<http://www.penobscoteast.org/documents/Column3of4FINAL.pdf>

just ran across another article with even more Sea Sled/cathedral hull history and that also touches on other tri-hulled craft-

<http://www.eaglespeak.us/2008/09/sunday-ship-history-hickmans-sea-sleds.html>

coincidentally one of the links in that article is to the company doing the float testing of the lobster boat models, and they have some very interesting craft and concepts of their own worth checking out too-

<http://www.mshipco.com/>

the rig they use to do the in-water testing is itself a very interesting small trimaran that seems pretty conventional, design-wise apart from the purpose built deck gear-

<http://www.mshipco.com/rei.html>

more evidence to support the idea of using non-exotic trimarans as very adaptable working boats.

**ian**

August 2, 2013

here's a nice video of the REI testing process and some of M Ship's projects-

<http://www.youtube.com/watch?v=HCK9b7LKaoY>

# Very Unique Small Trimaran Approach – Part 5

August 1, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: surfboard trimaran, unique small trimaran

No Comments



# Trimaran Sailing Canoes at Rocky Mountain Safari

August 9, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: rocky mountain safari, trimaran canoe, trimaran sailing canoe

## Comments

**ian**

August 11, 2013

The PDF is worth checking out as it has the specs for five separate 14'-19' multihull boats based on this concept, that show that these guys have really given this some thought.

Using kayaks and other existing hulls as amas a really neat idea, and one I've considered a lot- according to historians the Polynesians would disassemble and reconfigure various larger hulls and amas into other smaller craft upon arriving at some destination, and we've all seen the various trimarans built using donor beach catamaran amas...but I don't recall ever seeing a demountable small trimaran where the amas were designed to be regularly used as individual boats or combined to create a catamaran.

For a small camp cruising boat that is easily beached, you could make camp with all manner of tents and awnings and the like that take time to set up/strike, but still be able to go offshore to fish or visit anchored boats or explore places where the larger boat is unsuitable, using the amas as tenders, either as a catamaran capable of carrying two people or individually as kayaks...

they also have one shot of an expedition where they replaced a kayak ama with a windsurfer board on a canoe based proa, and report good results aside from increased noise (which is not that difficult to mitigate if you orient the board more on edge instead of dead flat to give that flat surface more deadrise...lowers wetted surface too).

So that's another possibility for extravehicular activities using the amas as smaller vessels. You're already carrying those amas around, seems like a waste to have them just laying there when you are parked on the beach, and even if you are anchored out if you just remove one ama and shift weight to compensate the mothership should be able to float safely while paddling the ama around.

Even in non-cruising situations the ability to just toss the amas together and go out or take one and use it as a kayak without having to deal with the entire trimaran seems like a real benefit to users and a good way to attract more of them, if that was a goal.

But back to these boats- it's also worth noting that the kayaks in use here are more of a white water design than the easier paddling ocean kayaks derived from native boats used offshore...both are very capable in heavy water, but the smaller fatter river boats aren't really intended to go long distances under paddle alone and no doubt using something sleeker and more suited to efficient use of available power could kick the speed up significantly without losing any of the benefits of the hybrid design.

**Small Tri Guy**

August 11, 2013

Yes, Frank (from RMS) has really given this stuff a lot of thought. Really thinks outside the conventional box too. Kudos to him for trying something different in order to create a smaller trimarans with specific purposes.

**Wade Tarzia**

August 15, 2013

One of the proafile (yahoo) people, "Jerry" I think, once proposed that a kayak could be used on a large single-outrigger or proa as a "safety ama" and, once at an anchorage, could be de-rigged for use as a kayak. This seemed to be a unique solution for both knock-down safety and carrying an auxiliary boat 9as long as the kayak were rugged enough to take the stress of supporting against a knock-down).

**ian**

August 15, 2013

In the case of a shunting proa, if you could find one of a suitable length a river kayak might end up being the better choice for a donor boat, as some of them have symmetrical ends and are for all practical purposes reversible.

A canoe would be another option if it were decked or otherwise made resistant to swamping, and there are some pretty neat rowing shells and shell/kayak hybrids that have built in flotation and cockpit/foot well drains, that are double enders.

The other thing I like about the shells for a multihull is that a) they are extremely lightweight and b) they already have a strong point and some type of structure to carry the loads of the oars, which are nothing to sneeze at. You'd no doubt need to do more reinforcement and engineering than just bolting a pipe to the oarlock outriggers to make it all safe and seakindly, but all of the various donor boat possibilities the single person shell seems like the one most naturally suited to stress loading from a big arm hooked to it..

and it could be made into a proa or tri itself when taken off the larger boat, even if the ama was just some foam or a spare surfboard, which in turn could help balance two major drawbacks of a dedicated rowing shell, its lack of inherent roll stability independent of the oars, and poor cargo capacity.

A couple of examples-

<http://rowalden.com/live/index.php/products/boats/alden-16-quest>

<http://www.littlerivermarine.com/sprint-recreational-rowing-shell/>

the shell-turned-trimaran concept is already used for training boats...the amas here are kept up and out of the water to force the rower to learn balance, but their volume and location could be easily designed/adjusted to maximize initial stability -

<http://www.edon.biz/id17.html>

<http://www.youtube.com/watch?v=ICNw4JlnaqA>

Finally here's a neat little craft that exemplifies the pair of amas turned catamaran concept...the stand up part makes little sense for a tender but since the boat is optimized for adaptability you could just ignore that and fit it with oars, and it even comes optional with an electric motor drive-

[http://www.easyriderkayaks.com/waterwalker\\_overview.htm](http://www.easyriderkayaks.com/waterwalker_overview.htm)

"Exclusive outrigger-feature...

Furthermore, each WaterWalker hull can be used as a super-buoyant outrigger. Attach it to an Easy Rider kayak or canoe and you have an extra-stable platform for scuba-diving, swimming, snorkeling, diving, etc.

NOTE: The hulls of a WaterWalker can be purchased separately for use as outriggers."

# First Strike 15 Trimaran in the Water

August 16, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, Strike 15 Trimaran

## Comments

**Stefano**

August 26, 2013

OK... we got to see it finally ! It actually looks finer on the water than while in construction this strike 15 but I have 2 remarks:

1) I think the bow would gain if the sheer were upswept a little more, also to gain volume and avoid nose diving

2) the boat is shown lightly loaded, one person. Yet the transom shows already to be caressing the water, probably digging in if there were two on board and seated more aft. Not to mention three...

I think these two points could be addressed in a design refinement. All the rest looks great and even not as "boxy" as the 18 which however shows a better overall behavior to my eyes.

**Richard Woods**

August 31, 2013

Thank you for your comments

I quote from my webpage on the Strike 15

"It will take two people when daysailing but is really intended to be raced as a singlehander."

it is a different concept to the Strike 16 and 18

When heeled the outrigger takes some of the buoyancy, so the transom lifts, as in the video still shot

If the sheer was swept up then the hull panels would not be straight at the gunwale - which would make it harder to build and use more plywood.

Again, remember the market it was designed for.

Hope that helps

Richard Woods

# Look at a Traditional Indonesian Trimaran

August 23, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Indonesian rimaran, Polynesian trimaran

No Comments

# Multihull Legend Dick Newick Passes Away

September 1, 2013

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Dick Newick, Dick Newick catamaran, Dick Newick trimaran, Newick multihulls

## Comments

**ian**

September 12, 2013

It's hard to think of a single designer in the history of monohulls whose boats are as uniformly sleek and graceful in their lines and whose total output was so well realized and effective and influential, let alone during their lifetimes...people like the Hereschoffs, the Atkins' and Sparkman/Stephens all come to mind and are arguably among the great masters of classical sailboat design, but many of their designs can be mistaken for the others and their truly innovative stuff tended to take a back seat to the rule oriented boats.

Hereschoff tried racing multihulls in the 19th century and got them banned for beating everyone, only recently have they become "legitimate" for racing like the America's Cup.

Newick championed offshore racing tris when they were not at all accepted, and kept at it even after the tragic unexplained loss of a boat and crew and never stopped innovating and putting those innovations up front and testing them with an eye towards improvement.

A handful of decades later, large racing tris are the norm in many offshore events and have established a decent safety record, and Newick's work was a huge part of making that happen; at times he was one of the only people keeping that vision alive...much the same way that Burt Rutan's work with composite aircraft structures and innovative designs in the face of major setbacks including fatalities has been a huge factor in their becoming mainstream when they were originally relegated to backyard kook status.

He was already a bona fide legend many years ago and no doubt his influence will be seen as long as people continue to design and build multihulls, and even better things will come from future designers bringing new perspectives to his work and ideas.

His designs are as timeless as anything anyone else has ever put in the water, and more innovative than most too.

**Kevin Lightcap**

November 23, 2013

I drove up to Woods Hole on new years day in 1985. Arrived around 5 pm and took the ferry to Marthas Vineyard and rented a room for the night. Around 9am I called Dick and he replied I'll be down to pick you up and show you around. I had never talked to Dick before and was so pleased to see the Volvo station wagon approach. He brought me to his place showed me around and talked to me about multihulls. Showed me a good sized trimaran being built and a apprentice from Sweden I believe was working on her strip planking. Then we went for a ride and he showed me a Val being built for the transatlantic race I believe. Then we went back to his design office and he showed me plans. What a day what a man. I am not wealthy by any means but thought maybe someday I could build one of his designs. I am very interested in your web site, please subscribe me and want to get out on the water on a smaller multi that moves fast. Kevin

# Photos of the Goldfish Trimaran in Russia

September 2, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Goldfish Trimaran

## Comments

### **Stefano**

September 2, 2013

I wish to emphasize that the previous Goldfish had already been presented here. However when I went to check on the old link I saw it updated with a wealth of new information and namely the very pretty Goldfish 2 which departs radically from the boxxy appearance of the former boat ( the first was rusty orange in colour, the latter is white). If you have the patience to check pics from page 25 onwards you will also see how smartly the interiors have been drawn on such a small (18 ft) boat with an internal table, a double berth forward and two berths under the cockpit seats and a porta potti masked hidden under the entrance steps. The hull shape is completely new and the cockpit is wide and neat while the whole boat looks pretty with a touch of fancy in the lateral window "eye brows". Hope you will enjoy the richness of photo documentation

### **Small Tri Guy**

September 2, 2013

Thanks for the additional info and clarification Stefano!

### **Christopher Wilson MD**

July 10, 2016

The name properly translated should be -Golden Fish-and comes from the classic Russian folktale about the old fisherman who catches a golden fish that grants wishes.

# Fulmar 19 Trimaran Fun in Michigan

September 8, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Fulmar 19 Trimaran, John Marples

## Comments

**Jeff Wittenfeld**

February 7, 2015

Do you still have the Fulmar 19??

THX

Jeff

# Introducing the CHS X19 Sport Trimaran Sailboat (Audio Interview)

September 17, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: Charlotte Harbor Sails, CHS X19 Trimaran, Kurt Hughes, Trikala trimaran

## Comments

**John Lange**

October 10, 2013

Made a bit of progress this week. Got all the AMA forms cut out and ready to build the frame for the AMA plug. Little bit at a time, check our progress at <http://www.3Hulls.com/>

**steven**

December 9, 2013

have any of these chs x19 trimarans been built if so do you have any pics



# SeaRail 19 Trimaran Update

September 26, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Searail 19 trimaran

## Comments

**Dan Piekarski**

October 26, 2015

Good afternoon

Will you be showing your Searail 19 at the January 2016 Chicago Boat Show?

Thanks

Dan

# I TRI'D – A Self-Designed 18-foot DIY Trimaran

October 4, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: diy trimaran, home built trimaran, I Tri'd trimaran, Self-built trimaran

## Comments

**Robin Bennett**

October 4, 2013

Fantastic job Mick!

I'd love to see some more photos, or video of you sailing. I'm also fascinated by the reasons for people's design choices.

Why did you decide to design your own?

Why 18 foot?

Do you stand on the hull, or is there a floor?

What sort of lee-board did you build? Is there a photo?

What's wrong with the outboard position?

How long does it take to rig and launch?

**Mick Milne**

October 7, 2013

Robin, thanks for your interest.

I have a video but am having problems uploading it, not my area of expertise but I will persevere, hopefully I will have that complete in the next couple of days, I will also provide more photos.

Why my own design – I think I covered that partially in the notes but in essence I think I just like to understand how things work and also I like doing things to see if they do work, and I suppose experience has shown me you can do most things if you try.

Why 18ft – I certainly wanted something I sat in rather than sat on, but had also read in many places the advice not to build a boat bigger than you need. Once I started designing 18ft provided enough space to seat two easily, four at a push, and provided enough displacement. I did sketch out some 16ft designs but they just seemed to be too small.

There is a floor, simply 18mm plywood , raised about 4-6 in from the hull base, this seemed to make sense rather than walking on the hull. Surprisingly there are no pictures but I will take some and post them.

The leeboard is simply plywood sheet shaped, but is already showing signs of stress. I am busy reinforcing a hardwood centreboard (with epoxy and fibreglass)which I will use to replace the plywood. I got most of the ideas for the leeboard from Frank Smoot's excellent website which has featured several times on this blog. His explanations and points, such as that shifting a leeboard to change the CLR, really helped. There are some photos showing the leeboard which I will post.

The issue with the outboard position is the mounting bracket, not the outboard itself. As the slider mountings are round, and close together, I have had to modify the outboard bracket, the bracket obscures access to the slider locking pin and also applies enough pressure to the mounts to restrict free movement of the sliders. This means I am continually slackening or tightening the bracket , or removing it. It is just not a good piece of work. If I was designing the same boat again I would fix a wooden square bar 4-6 inches behind the slider mounts to provide easy location of a standard outboard bracket.

Rigging and launch takes around an hour though part of that is due to the launch site I use. Good launch sites are rare in UK and it is a busy site. I have to rig the mast, the jib , outboard, and seats at a trailer area, and then having reversed onto the ramp extend the outriggers and tighten the tramps, then launch. I then normally rig the main on the water. Part of the work to modify seats, outboard mount and a few other small tweaks is to reduce this time, though I do think rigging the boat is part of the experience so I would not want to have no rigging to undertake.

I hope all that that helps answer your queries and I will put together some more photographs showing some of the detail, and hopefully that video.

**Frank**

October 14, 2013

Love it, Mick. I'm always excited when any bold venture sets out to, not only build, but design their own trimaran. I'm on maybe my 10th "home brew" tri now, and each one has been not only a blast to build and sail, but a real education as well.

My latest (a 19-footer) is probably my best so far. Set-up time was always an issue for me, too, which is why I ended up with a folding design and an unstayed mast with the 128 sf sail furled around it. My designs are shaped by the places I sail (shallow) and by the fact that I always beach launch.

18' is probably the perfect length for a tri you can launch, rig, and sail alone. Your boat looks great, and I'm delighted that my leeboard info was helpful.

Couple of questions, if I may: What does she weigh in at, all up? How much sail are you carrying? Have you had a chance to speed test with a GPS yet?

All my boats have hit 14 mph (white knuckling it, for sure!), but I haven't hit 15 yet. I think I will, though, with my new vertical batten sail. I'd be happy to email you some photos, if you like.

Also, I now use solid lumber for my rudder and leeboards, covered in 4 oz glass. They last much better that way (I got tired of having to constantly repair them).

Again, excellent job! And I liked the video as well – mainly because you kept the camera moving and we got to see most all of the boat.

Cheers,

"Trimaran" Frank

**xav**

November 6, 2013

Hello Mick,

Congratulations for your boat !

I'm very interested in your 18 ft trimaran because i have the same project.

I have some questions :

Is there any drift ? where it is ?

The seats are fixed under the tubes, that 's it ?

is it a self draining background in the cockpit or not ?

Did you purchase specific sails or you pick up them from an other boat, witch one ?

what is the the mainsail area ?

what is the weight of your boat ?

You designed your boat with what software ?

Thank you for your reply

Best regards

x.lemaire

# Wave-Piercing 5-Meter Trimaran Powerboat

October 14, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: 5-meter trimaran, power trimaran, trimaran powerboat

## Comments

**David Kagan**

October 14, 2013

Fred: Very interesting design. What material(s) did you use to form the cone-shaped deck over the front end ahead of the cockpit and then attach it to the hull?

**Fred**

October 16, 2013

David: Cardboard covered with fiberglass and epoxy resin.

**Stefano**

November 2, 2013

Very interesting project. However for running over a short steep chop, a better design of the amas and akas would go a long way towards improving handling, especially those plumb bows and large aka connections will slam onto, rather than cut through waves.

As for hobbyhorsing dampening effect, at the stern you might think of redesigning the stern adding two flaps aft as seen in the Tango 14 skiff:

<http://www.tangoskiff.com/PLANS.html>

another option is adding a small vertical thin surface protruding vertically from the stern into the water. 1/4 inch might do the job. It is called "intruder" in naval architectural jargon I was recently instructed...

Well done job ! Keep the project going

**Fred**

November 6, 2013

Stefano; Thank you for the constructive insights and encouragement. Have considered sharpening up the vertical AMA supports. Will have a better feel next spring in larger waves. Windshield needed. Not sure I understand "intruder" ?

**ian**

November 8, 2013

My initial reaction to the ama supports was the same, but when viewing the video it didn't seem like any kind of practical problem at all with the water never getting close to them...the artist part of me kind of wanted to not like them, but other than not being all pretty and some windage there doesn't seem to be a lot wrong with them.

As for trim and hobby horsing, any outboard boat will benefit from some kind of adjustable trim beyond the factory kick-up feature and whatever stops between up and down there are on the bracket. Trim plates can help, but trimming the motor creates less drag.

It's especially true as you go faster and wind/aerodynamics become a factor- the most successful fast power trimarans that rely on a dead flat stance at all times at speed all use power trim and related airflow as part of the stabilization scheme, and even at low speeds it can make a big difference to how a boat handles and self trims, where airflow can cause the boat to repeatedly climb and stall like a poorly balanced paper airplane.

Also the natural tendency of the waterborne part of the boat is for the transom to dig in under power application, and that can cause the bow to swing upward beyond the trim point and then fall back down, where it goes below its lines and wants to float back up, in a cycle that hopefully settles out very quickly but might not in some designs or with certain sea conditions. Technically this would be better described as "porpoising" as it's more of a sine wave motion than the back-forth sawing action of a hobby horse.

For this reason a lot of power boats will extend the deck outwards at the bows to create a wing-like overhang that air cushions the fall of the bow if it trims high and falls back down. With enough power the boat can even become mostly supported by airflow.

Not sure either what Stefano means by "intruder", but what he describes sounds kind of like a "spoiler" and maybe it's an imperfect translation? The two \*could\* be synonymous, just not in this context...?

Perhaps he is talking about cavitation plates or some variation? Some of ones used on drag boats are very short with very high attack angles...

<http://www.performanceboats.com/jet-boats/76703-cavitation-plates.html>

**Fred**

November 8, 2013

Ian: Good and helpful information. Would have benefited greatly had I found this site a year ago, but as stated this was originally to be monohull. Thank you for taking the time to comment.

**ian**

November 9, 2013

Hi Fred,

Glad you found the comments helpful...a couple more to consider should you go further with this concept-

While the wave piercing displacement boat you've built operates differently than a planing boat, a tricycle footprint has some inherent traits whether it floats or is on wheels when it comes to turns and inducing roll, and how it shifts weight distribution when on/off throttle- it's a simple form but the more you push the envelope the more any built in issues will show up, sometimes all at once.

The monohull with training wheels concept certainly can work, but too much buoyancy aft in the boat as a unit can create a tendency towards nose down trim in the main hull when coming off of waves, contributing to the porpoising problem in a seaway. Some power tris with your configuration use a stepped main hull or in displacement types tuck the aft sections of the main hull up fairly radically (or have a deeper forefoot) to move that hull's center of buoyancy farther forward to compensate and dampen that tendency to nosedive.

It can also help mitigate problems with roll induction in turns, that on a point-forward trike always happen on an axis that runs between the front and rear contact points, rather than on the vehicle's centerline.

These are extreme examples of non-displacement power tris, but still illustrate pretty well the difference between the wide point forward and wide point aft trike layouts as far as bow up/down trim and the results when you go out of trim at speed...not easy to watch but highly educational from a design standpoint; failure testing of both designs purchased at the ultimate cost-

Bluebird K-7 final water speed record attempt-

"Picklefork" design is rock solid with little pitching motion from water surface interaction, but has a radically unbalanced aerodynamic profile that makes it want to "kite" when the light front end and dead weight aft interact- once it hits a certain angle, everything up front is a lifting surface and it will almost always go skyward when things go wrong-

<http://www.youtube.com/watch?v=4xemKc2In5Y>

also worth noting that unlike a modern three point hydroplane, the Bluebird rode on its main hull aft and not a propeller...a lot of the kiting incidents you see in prop driven hydros are from a loss of the prop or strut that causes an instant radical nose high trim, but the Bluebird was a true trimaran with all three hulls in the water and this was pure aero- and hydro-dynamics at work and not a mechanical failure.

None us will ever go that fast but even at slow speeds that type of footprint can let the main hull stern move up and down to a greater degree, especially with crew and motor weight concentrated aft- the boat will tend to pivot off the wide point.

Crusader final WSR attempt-

Traditional tricycle style layout with a stepped main hull that spreads the footprint out when on plane by keeping the main hull contact point forward, with virtually no contact of the main hull stern in the water at speed.

Even with that sensible design tweak and flat water, you can still see hints of a kind of "softness" in the main hull bow and tiny pitch fluctuations at 1:25-1:30- when the power is on, the aft sections stay rock solid and really aren't going to sink much but the narrow main hull can dip quite a bit even when fully on plane, especially with no attempt to provide any aerodynamic lift to compensate...

in the final run the cyclical porpoising action is quite obvious in those last few seconds even with the tiny pitch fluctuations involved, and when it goes out of envelope there's only one direction it can go-

<http://www.youtube.com/watch?v=aYrafKbTqV4>

**Ron**

July 20, 2015

Jeez...not quite sure what you mean by "out of necessity".

Do you mean that one of the thousands of aluminum-hulled LUND boats for sale in the local vicinity wouldn't work for you? Ok, if you want to cut through the waves, then ditto for a canoe with a small 3hp motor? This problem of "necessity" was solved 40-years ago, at least. Admit it,...you just want to justify some play/tinker time...we all do, but this is kind of silly.

Ron

# 13-Foot Kayak Trimaran in Oz

October 18, 2013

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: finn kayaks, kayak trimaran

## Comments

**Terry**

April 2, 2015

Hi,

I have 3.9 metre sit on top kayak. I am going to transform this into a sailing trimaran.

My main question is, is a rotomolded hull strong enough to screw the outriggers and mast to, or does it need support.

Looking at the picks of yours, it appears to be attached directly to the hull.

**Brendan Duce**

August 14, 2017

Hi mate your craft look's unreal and looks like heap's of fun, what id like to know is the Diameter & Thickness & Length of the Alloy Tube's that are used for the cross bar supports for the Two Outrigger Floats. And what is the Measurement of the gap between the Kayak side and the inside edge of the Outrigger Float, this info will be greatly Appreciated Thank You, Brendan Duce.

# Building a Seaclipper 20 Trimaran in Italy

October 28, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Seaclipper 20 trimaran

## Comments

### Tony Fannin

November 2, 2013

After looking at various small Trimarans I feel the Sea Clipper 20 has a load of good things going for it. A pity that its so dated looking compared to others currently on the market. Is there any chance of the designers doing an updated version – plumb bows – full length floats etc?

### Small Tri Guy

November 2, 2013

Hi Tony,

The Seaclipper 20 is a new design (just a couple of years old). Everything about it is done for a reason. The main goals Jim Brown and John Marples have for this model included ways to EASILY (and relatively inexpensively) build a tough, open cockpit daysailer.

It's ideal for being able to day sail with multiple persons ... and also offers plenty of room for camp-cruising (for one or two people). One of the surprising benefits of this boat is that it's also turned out to offer good performance. Guys who've built the boat and are now sailing them all say these boats can fly if rigged the way John Marples intended for them to be rigged (with Hobie 16 mast / sail).

The Seaclipper 20 contains a couple of genuine "innovations" in design from Jim & John: 1) A way to quickly lay out the hull patterns on a flat surface in order to put the hulls together quickly ... and ... 2) swing-wing akas that are made entirely out of standard woods that you can find at any good lumber yard. These crossbeams have turned out to be very strong, yet flexible in their movement. Their ability to flex in waves gives the boat a smoother ride than if they were entirely rigid.

So you see, it may not look like a modern design in some eyes ... but it is very much a modern design. The main point here is that aesthetics are a secondary priority for both Jim and John. They'd rather design cost-efficient, easy-to-build boats that perform well, even it means ending up with something that isn't the "sleekest-looking" trimaran out on the water.

It's all a matter of priority. What are/were the main design goals for the boat in question? Another great design, which is also not considered the "sleekest" thing on the water, is Richard Woods' Strike 18 model. It appears to be another great performer. Richard wanted to offer home-builders an easy-to-build boat that can set up to go sailing quickly at a boat ramp and then perform nicely after it gets out on the water.

The designers' talk extensively about both of these models in the book, "More Small Trimarans." Their design goals were given a lot of emphasis as they were being interviewed.

### Pippo Bianco

November 3, 2013

Being about 20 hours into the build I must say that the idea of the flat out table is just great because it makes the work very comfortable. Please note that the amas must be shorter than the main hull with that swing-wing system.

### ian

November 3, 2013

Plumb bows have become associated with modern high performance sailboats but the reality is that the main practical advantage a designer sees is maximizing waterline length to exploit measurement rules.

They are also popular as part of wave piercing designs, so race boats designed to sail that way tend to have plumb and tumblehome ama bows that offer minimal resistance as they ascend from a dunking. But on boats that don't get drilled through waves at high speed, it's kind of like putting a wing on an econo box car as far as there being any practical advantage.

Don't get me wrong, I love the look of plumb bows and they do have some very definite advantages for quick DIY builds, especially with sheet goods and chined hulls- but there \*is\* a reason why a lot of sailboat designs have adopted the spoon/cutter style bow profile even though it loses some design waterline length and can add complexity to the build.

In real world use, spoon bows will often roll up and over something like a log or floating barrel when they hit it and will push it aside but plumb bows can be more susceptible to damage from collisions that tend to be direct, jarring hits...they can also get more damaged and make rescue from groundings and careening more difficult compared to hulls with a softer curve from keel to stem, that can be spun around in the sand or over a rock or reef protrusion without that pointed chin to hang up on.

None of that matters to racers designed to a box rule but for general use that involves beachings and trailers and where you want a robust boat that can handle some accidents and abuse without needing extensive repairs every time you take it out and hit a piece of lumber, in any boat heavy enough that you can't lift it by yourself the tradeoff is IMHO well worth losing any performance advantage that plumb bows may offer.

Build complexity is another matter, and in smaller boats the advantage of a simpler shape may outweigh any concerns about things like careening that not everyone will do.

Plumb bows aren't anything new, they were used on many early powerboat designs and lots of traditional sailboats have plumb bows when you strip off the planted-on clipper stem, which itself was an adaptation intended in some part to overcome the floating debris handling issues of the plumb bow. In that sense they are less "modern" than the spoon or cutter bow and mostly went away everywhere except in sailboat racing based on some very real drawbacks.

**ian**

November 3, 2013

Forgot to add- another big disadvantage of plumb bows is that by default they present a large flat vertical hull surface in the bow with little to no deadrise, that doesn't deflect spray very well and can induce some very serious racking stresses when slammed by a wave or when falling off a wave into a trough.

That may seem like overstating the case, but consider that a small tri day sailer getting hit by a large powerboat wake from the side can experience similar stresses from waves that may be twice the boat's freeboard in height.

On tris designed to be capable of handling normal ocean conditions, effectively and safely handling wave action from all directions is a definite consideration because even if you keep the pointy end(s) going forward, that's not the only direction that the water comes from when swells and currents are involved.



# Stayed Mast versus Unstayed Mast on a Small Multihull

November 5, 2013

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: spar making, spruce wood for spars, stayed mast, unstayed mast

## Comments

**Joost Blankevoort**

November 6, 2013

At the moment I am laying the last hands rebuilding the rig of my own trimaran, build out of a wooden kayak. The kayak started as a material experiment: instead of using 5mm thick marine plywood stitched and glued together with epoxy I build one of 3,5 mm thick non-marine plywood stitched and glued together with glass-fiber and polyester. And the experiment is successful, the kayak still floats. But I wanted to extent the distance I can cover in order to explore a number of lakes around my usual paddling/playing waters. So I wanted to add a sail and thus making a sailing kayak. The drawback of such is the risk of flipping upside down due an unexpected gust of wind, so . . . I build a trimaran out of it.

Nerve wrecking it was, my first sailing experience with this boat as I first needed to paddle through a couple of small canals in order to reach my favorite waters in where I could use the sail (I do not want to use an engine: one should be able to cover distances on manpower in such a small boat shouldn't one) because I feared that my formal Kayak might have become a bit heavy weighted with all the outriggers, floating bodies, mast etc.

To my surprise it did turn out quite right! Amazingly light to paddle still with all the extra's I covered the distance easily. Note I paddled with the mast up but without hoisting the sail.

During the rebuilding from kayak to trimaran I had in my mind that when I needed to paddle I might face strong winds to paddle up against so I wanted to keep the air resistance as low as possible. I wanted the sail and the mast to be taken down easily in such case without the hassle of stays etc.

I made a short mast (less drag) that will stay up also during paddling and for sailing I use a sort of Gunter rig.

During the first two small trips there was hardly any wind and to my frustration I was quickly passed by kids, sailing in their Optimist class dinghies. But the third trip finally there was wind, a spicy 3 to 4 Beaufort force and ... Yes, It Did Go!! Wonderful. As many small boat-builders would have experienced I presume I walked around for days with huge grins on my face, feeling great with my small boat!

I could use a larger sail area though. So meanwhile I am building a larger and far longer mast in order to expand that sail area and to get rid of the Gunter rig. It will become a more Polynesian type of rig with only a mast and one boom (no gaffer). But also a rig that I can take down completely when I am on the water as I found out that even a short single mast can cause a sensible amount of drag when paddling.

I am aware that a thick, unstayed mast will be less effective than a thinner stayed one but the way I use my trimaran I do not care so much. And if the lack of speed becomes annoying, the first thing I must do is get rid of the kayak hull in order to gain less drag before I change to a rig using a stayed mast.

But then things will become more serious. And I am not out of my playing time yet . . . ;)

**Stefano**

November 6, 2013

Hello to everybody. This is a kind of topic I love to read and debate about here.

There are a lot of unproved assumptions and statements in this text, such as :

1) The loads associated with unstayed masts are huge.

They are about the same if the surface of the sail is comparable. It als odepends on mast height i.e. leverage. While unstayed masts produce shear loads on mast partner and foot, stayed masts have severe compression loads.

Make sure the BOTTOM of your hull or deck can handle them, and also watch where you attache the stays. A good option is to attache them to a bridle that would connect them to both akas front and rear. However if the load is much, this will bend akas upwards and slacken your rig with much pumping and loss of efficiency and increased punctual loads ( especially in a chop and gusty winds).

2) The hull has to be able to accept them or else the boat could tear apart.

When I changed my trimaran rig from unstayed to stayed, the load was transferred from the hefty mast partner to the side benches (just to close to the mast) through stays. That is when I tore up my hull, not viceversa. An unstayed mast gives away much power on gusts. A stayed mast will not and will transfer loads downwards and on stays especially again in chop and wind gusts.

(PS I am not advocating unstayed masts... I have a stayed rotating through-stepped mast now + another rig, read on. However I had to reinforce very much mast partner, foot, stay and shroud attachments befor the whole thing could be named safe. The unstayed rig is much more gentle to the hull giving up on gusts.

3) Windrider 16s, for example, all use unstayed masts. But a steel reinforcement system had to be put into the 16s in order to make it possible to step their masts into the center hull. All Windrider 17s use stays.

This is much contradictory with you prior assumptions and statements. It is BECAUSE of the stays that the reinforcement is needed.

4) Putting an unstayed mast on a small multihull (including a trimaran) is generally not the first choice of either sailors or boat designers. Stayed masts, particularly rotating beach cat type masts, clearly offer certain advantages over unstayed ones.

Depends actually what you are looking for in terms of advantages. I have two rigs. When I need to cartop my little tri and be in the water in 10 minutes I opt for an unstayed sunfish rig that is short, deployed in 2 minutes and is not deck stepped but through-stepped with a very solid mast partner.

5) Performance is the first thing that comes to mind. In the opinion of many knowledgeable guys, stayed rotating masts offer 25%-30% more efficiency than unstayed rigs.

Please explain in what terms "efficiency". If the stays and mast are sufficiently stiff, then yes. If all is floppy, you might as well have a rotating UNSTAYED rig and it will do miracles.

Stays are also inducing wind resistance.

6) A stayed mast is typically much lighter. And because it's stepped on deck, ( ??? why on deck ??) the stays can be used when raising it up.

You better have parallel stays to raise your mast. The ones that have a quarter with the mast are useless until they are tight.

7) This means stayed masts are shorter (???) and much easier to handle overall (than an unstayed option).

Go beat the length of an unstayed sunfish rig mast !. Compare it with equal surface over a Marconi rig, a cat rig... a schooner. All is about how you divide your surface area. Take a look at adventure trimaran rig.

7) Stayed aluminum masts are also much more durable than self-built, wooden unstayed masts. It's hard to ding them up enough to cause much damage. That can be a very big deal when constantly trailering a boat.

I agree on this one

8) Unstayed masts are usually larger (???) and much more unwieldy than stayed counterparts. This means a lot more physical exertion when stepping it down into a hull. And hinging tabernacles for unstayed masts are themselves often big, heavy and clunky to work with.

Again quite unusual to see an unstayed mast on a tabernacle.. I have in mind almost all through stepped masts with a deck or a solid partner to hold them in place. Would you rate a laser dinghy mast and rig as being inefficient ? Or difficult to raise ?

How about the weight of standing rigging ? My trailertri 720 had about 28 kgs of mast 9.2 meters long, but overall the rig weighed almost 50 kgs since it had 3 sets of 5 mm SS shrouds and a fore stay. Look up at unstayed carbon masts or tapered aluminum etc.

I am drawing a 6.5 meters tri now. It will have a small stayed deck stepped mast from a 17 ft catam. in front and an unstayed carbon fiber windsurf mast with a short mizzen aft to reduce stress on rig, fraction the sail area, lower the centre of effort while having a large surface ( with staysail, schreecher mps and two slab reefs in the main).

This will keep the weight down, make the rigging very simple and fast without the ordeal and risk associated to having to raise a 50 kgs mast, while conserving a downwind sail ratio of 48:1 and balancing the helm and the tri at anchor through the small tough mizzen. This is the efficiency and effectiveness I am looking for. It is a design goal.

What are yours ?

That's my 5 - perhaps 7 ;- ) Cents folks...

Bye Stefano

**ian**

November 6, 2013

Hi all,

I can't disagree with a single point made by Stefano, especially pointing out that the structural requirements for a stayed and freestanding rig carrying the same sail area are practically identical, just with the loads distributed to different places and along different paths. Neither is free from serious pitfalls if not properly engineered, and none of that engineering is simpler to get right in one or the other.

It might seem intuitive that a boat that can keep its mast up with no stays would be able to do so with stays attached but as Stefano points out, the loads generated by a gust that would simply bend the unstayed mast and spill wind will be concentrated and directed elsewhere when that action is prevented by standing rigging that takes up some of that load.

Which brings up what is a big omission in the entire debate- some boats with unstayed masts are designed to keep the rig relatively rigid but many small sailboats use that rig specifically for the gust handling described above and for the ability to radically alter sail shape via the bend-y mast and mainsheet/vang trim. There are stayed rigs that do this too (see video below), but the engineering and geometry is daunting and these rigs can blow up pretty spectacularly under strain.

Point being that a plan to adding standing rigging to a rig designed to bend and flatten the mainsail might be as doomed to failure as deciding to retrofit a boat with a stayed rig to one with a freestanding mast.

The point about compression loads can't be stressed enough- a poorly executed switch to a stayed rig- or even the addition of running backstays or similar non-permanent standing rigging to a freestanding mast- might result in a chainplate ripping out or even a dismasting, but hogging (deformation) of the hull structure itself is possible and probably a greater long term threat to the integrity of the vessel, and driving the stick straight down through the hull is not impossible...or worse-

One Australia breaks in half while its stayed rig stands despite losing a good portion of the standing rigging tension-

<http://www.youtube.com/watch?v=8Yau9A7XDHS>

thing is that sailboat standing rigging isn't generally designed to break away when overloaded and is usually overbuilt, so any overloads that don't take the rig down go into the hull(s) and associated structure, that are by default already compromised by the need to hold the rig up \*and\* be lightweight, hydrodynamically correct, etc.

Also worth noting in the clip above that they were going to weather, not under a huge press of downwind sail or taking wind loads directly on the beam where most people would assume a higher risk of potential failure- they essentially folded the boat up with backstay and mainsheet tension combined with the hobby-horse inertia of sailing upwind under a marconi rig.

**ian**

November 6, 2013

Speaking specifically to materials and build methods for small sailboat spars, there's also so many variables that it's almost impossible to discuss "best" materials and practices unless you have a very well defined purpose and budget in mind.

Maybe I'm getting too far out of the scope of the discussion as Joe intended it, but it seems kind of odd that a discussion of freestanding spars doesn't really mention fiberglass/composite when it's a very popular choice for freestanding masts and other spars and has some very attractive qualities- there's lots of stock tubing profiles suitable for spars, and for DIY fabrication when it comes to actual skill and finesse needed to get better than average results I'd say that fiberglass is probably easier (albeit nastier) than woodworking, with far fewer tools involved.

Solid hardwood is hard to beat in many respects but has been surpassed in others- it's cheap (sometimes) and relatively easy to work for many people, but requires ongoing maintenance far beyond almost anything else...and in applications where you want a lot of bend or have high stress loads it has inherent issues with uniformity. Even select lumber these days is often just not that good, and hidden flaws are always a consideration with any structural lumber.

Lamination helps overcome a lot of that, but glued up solid lumber introduces glue line failure issues and added ongoing inspection and maintenance time and things like windbreaks and pitch pockets can still hide in a 1/2" plank. Plywood on the other hand spreads the glue line loads over a greater area and reinforces the laminations with the changing grain orientation between veneers, and eliminates most hidden flaws that can cause catastrophic failure in solid wood.

For that reason, if we're talking something larger than a stick of nice wood for a dinghy boom I would consider a laminated lumber spar only if I really wanted the aesthetic or historical accuracy value...or at the very least, I would encapsulate it with some type of composite material to hold it all together and keep weather out.

But if that were the case and I was starting from scratch, I'd use a high quality aircraft grade birch plywood that is in many cases cheaper than select hardwood and can be laminated in virtually unlimited ways both with itself and in combination with other materials from solid lumber to metal and composite tubing and extrusions. You can build what amounts to an internal core or armature that is then sheathed in a composite, but unlike a typical cardboard tube or other mandrel used to make FRP spars you have a real engineered \*structure\* inside your fiberglass shell.

Spars built up this way can be solid or hollow, fine tuned to bend or not bend in various directions and can have strategically placed internal strong points or cores for attaching rigging, etc. and in the sizes we are talking can be made far lighter and stronger than a similar sized built-up lumber spar.

Either the core or the outer sheathing can be made to provide the majority of the strength or other sought after qualities- a robust inner core can help keep a thin outer protective shell from deforming beyond its limits as the spar does its thing, or a heavier outer sheathing can provide the majority of the strength while the core just provides a shape to laminate on, internal blocking for attaching things and maybe directs loads to make the spar bend more readily in some desired direction.

**Dave**

November 8, 2013

Joe,

Tight grains is not a sign of light wood, it is a sign of slowly grown wood. Typically, the more growth rings per inch, the stronger the timber, however, this is not iron clad.

If selecting timber, certainly look for boards where there the grain is as straight as possible along the board. Hope this helps.

**Small Tri Guy**

November 8, 2013

Guys,

Great input and replies to the above! It does show, perhaps, how the many issues in such a topic cannot be presented in such a way. A more comprehensive discussion is certainly a better way to go — with multiple input from knowledgeable sources. And your replies are a reflection of this.

**ian**

November 8, 2013

I missed the part about wood selection in the original post and Dave is correct about tight vertical grain being indicative of slower growth and not really a reliable indicator of light weight.

Many very heavy, dense woods like ebony have extremely straight, tight grain...a better visual indicator of wood species weight is the porosity of the grain- very tightly packed pores = density, which usually means more weight- that said there are certainly exceptions like oak that is very heavy and has a very open grain.

The thing about vertical grain lumber that makes it the standard for this kind of spar is the consistency of bend and strength qualities...vertical grain means no knots or other grain imperfections to introduce weak spots. In the olden days you'd get this kind of lumber out of very large old growth trees that were big enough to get large expanses of knot-free wood from between the branches when you milled them.

Conifers like spruce and fir are very good for this since they don't have large scaffold branches and will very often have large lengths of almost branch free trunk when they grow close together and send all the greenery upward for light.

Point is that the relative ease/cost of getting suitable dimensional lumber from available trees can be as big a factor in a wood species' popularity for some part like a solid spar, as the actual material qualities of weight, compressive/shear strength, etc.

Another factor that makes many conifers advantageous for marine use is the nature of the sap, that helps mitigate issues from weathering and rot, and on spars that may see less than perfect attention to maintenance (nobody likes painting masts) that can be a real lifesaver.

If you look at poplar, it has a lot of qualities that would make it seemingly a good bet- it's tall, not many branches, lightweight, fairly strong with a dense grain structure and able to take lots of wind- but it's a fast grower that soaks up water like a sponge so it doesn't want to stay straight as it dries after milling (poor dimensional stability) , and it is like caviar for bugs and rot when it is used outside.

So again it's a whole series of balanced considerations that make any wood "best" for anything and any one can be critical. The good news for small boat spars is that they can still be made from the smaller trees being harvested and you can find OK lumber if you work at it and/or are willing to pay a premium- but in many cases the best stuff available now is something salvaged, like planking and beams from early 20th century houses that were milled from trees that probably germinated around the time of Columbus setting foot in the Americas, if not earlier.

**ian**

November 8, 2013

Just to show the difference between a "good" piece of spruce from a modern lumberyard and the kind of trees used for the spruce that became synonymous with "good quality spar material" when that was a major industry-

"The largest spruce in the world is the Sitka Spruce. A Sitka Spruce may live for 700 - 800 years old and reach a height of 200 feet or more....

Sitka Spruce trees near sea level in Alaska have exceeded 200 feet in height and 10 feet in diameter. The largest Sitka Spruce on record can be found in Seaside, Oregon. It is 216' tall, almost 17' in diameter, and has a crown spread of 93'."

Besides the ability to get a number of ship sized masts of out of one of these trees while avoiding the weaker heartwood, there's also this to consider in the context of transportation back in the days before motor vehicles, and how it might have affected species selection for large spars-

"Its tolerance for salt spray allows the Sitka Spruce to grow near the seashore. "

[https://www.natlarb.com/html/sitka\\_spruce\\_tree.html](https://www.natlarb.com/html/sitka_spruce_tree.html)

**Thom Davis**

June 5, 2021

I think it would be nice to revisit this topic in 2021 now that carbon tubes are more plentiful and less expensive. I've wondered about other aspects of unstayed versus stayed in how the ama's are supported as well as rigidity of the whole boat which is important going to weather if you want to point.

# Audio: Frank Jackson of Rocky Mountain Safari on DIY Boats

November 5, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: DIY boats, Frank Jackson, rocky mountain safari

No Comments

# Apocalypso: A 20ft Polynesian Pontoon Trimaran

November 15, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Polynesian pontoon trimaran, Polynesian trimaran, pontoon trimaran

No Comments

# FINES Foldable Multihull Concept Design

November 22, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Fines foldable multihull, folding multihull

## Comments

**ian**

November 23, 2013

I definitely like the idea of an adaptable power tri design that can operate across a range of beam/length ratios both for trailering and docking size considerations but also for practicalities like increased stability and room for fishing, cargo, salvage and other work related stuff.

And it can work both ways: something that runs best at maximum width can be narrowed for docking (the typical folding tri sailboat approach) , or something that runs best while narrowed can then stop and expand for added stability and space as this design appears to do.

No reason that lounging can't be a dedicated activity and there's certainly people willing to spend a lot of money for boats to do it on, but the practical aspects of getting this one off the drawing board seem pretty daunting unless it is to be a very high end niche offering- the tooling for the nesting hulls and engineering of the articulated decks and crossarms are all very labor intensive and the latter adds costly equipment that also adds weight and complexity/maintenance not related to performance.

It appears to be in the 20 foot-ish range based on the scale people, and seems pretty squarely aimed at the same market that buys pontoon and similar party boats, without much thought given to other uses.

That's fine but when you go high tech and are competing in that market, it's hard to beat the low cost and availability of typical pontoon boats, which also happen to be fairly adaptable to working situations- they aren't very popular for open ocean waters or blustery weather but you do see cat and tri pontoons used in ocean harbors for light work duties.

That's kind of a double whammy for a boat like this, along with the fact that people who do have the money and desire for a toy with enough high tech flash to get noticed can also afford a lot of very sexy high end boats already out there that can be lounged on just fine and will always be sexier than even the most James Bond-ian spring break party barge.

That said it might work well in resort/charter situations where people expect something upscale and are paying a lot of money to get it, and no doubt it could become the trendy toy to have on your mega yacht...both are expanding markets, so maybe it could sell like hotcakes.

One other non-market oriented consideration for this type of boat- a single center mounted motor/prop/rudder seems like the least desirable setup both for handling and space considerations...a tri with individual outboards or similar drive units in each ama would be highly maneuverable and would open up all kinds of space in the main hull that could be used for living, cargo, fuel or other tanks, etc.

Spreading that engine weight across the entire boat could also be beneficial as far as sea handling in beam and quartering wave action- the intuitive notion of centering the dead weight in the main hull and adding highly buoyant stabilizers spread apart could actually cause a boat to roll more and far faster than it might with heavier amas that respond a bit slower to dampen roll, but are still supported by a light and responsive main hull whose buoyancy and roll inducement on the amas is similarly dampened by their weight and relative positions.

**Small Tri Guy**

November 24, 2013

Great insights Ian. Terrific thoughts related to this concept design. Maybe the would-be developers will read them and take note :-)

# Trimaran Sailing Canoe with Sunfish Rig

November 22, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: trimaran canoe, trimaran sailing canoe

No Comments



# Brand New (Old) Firefly 26 Trimaran Looking for a Home

November 27, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Firefly 26 trimaran, firefly trimaran

## Comments

**Steve**

September 8, 2014

Lucky guy! (If I had been looking here 8 months ago that could have been me) Hope to see it out on the Chesapeake.

**kevin mcintosh**

December 13, 2014

Id be very interested in your boat can you contact me please kevin

**jay elizondo**

November 2, 2015

Do you still have it for sale?

**Cosmin**

August 11, 2016

How do you do

I would very much like to work on a boat like the firefly; Did you sell yours already or is it still available?

**L. S. Cooper**

May 10, 2017

is boat still for sale and where is it

**Mark Zalenski**

May 10, 2017

My neighbor has a complete Firefly 26 here and will sell it cheap to a good home. He is back in Canada for the summer but I can show the boat to anyone who is interested. Has a 6 HP Honda and sails. Needs painting and cleaning up. Trailer needs tires.

**Mark Zalenski**

May 10, 2017

The boat is in St. James City, Florida on Pine Island.

**Jack Murphy**

May 11, 2018

I would be interested in the Firefly in Florida. Could you put me in touch with the owner?

**Jack**

May 12, 2018

That is if she is still available Mark!

**Thomas**

June 23, 2018

Jack Murphy, if you'd be so kind to advise whether the FL Firefly is available.

I am a buyer. Can act immediately.

Thanks

**Thomas**

June 23, 2018

Sorry about that my message above should have tagged Mark Zalenski's 5/10/17 message. Apologies to Jack.

Regards,

Tom

**David**

July 12, 2018

This Firefly is now for sale. Listed on Washington DC craigslist, and sailboatlistings.com.

**Paul Jensen**

January 26, 2020

I helped Brian with the prototype in Annapolis Md. I loved sailing that boat in high winds and seas.

# Portable Dock and Small Boat Utility Transport

November 27, 2013

Categories: Small Tri Info - All

Tags: portable dock, small boat dock

## Comments

**Glenn**

November 27, 2013

The tow vehicle, skis, trailer, boats..... how can you not like a guy who creates this? I'd choose meeting Frank over anyone driving a custom-painted dually towing a glossy production boat.

# Trika 540 Trimaran – Light, Cartopable & Fast

December 5, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: kayak trimaran, sailing kayak, Trika 540 trimaran, Trimaran Kayak

## Comments

**Robert**

December 6, 2013

It looks fabulous and exactly what I am looking for in a boat. I'm glad the last video was posted since it showed the boat in almost 10 knot wind (not yet whitecapping).

Robert

**ian**

December 6, 2013

Gorgeous lines, and I especially like the proportions of the hulls and rig with the mast height actually shorter than the LOA... and only about 84 sq ft of working sail area.

For comparison the Strike 15 has 157 sq ft of sail...almost double, but I'll bet it doesn't go twice as fast as this boat. Over 9 kts with that small sail area without extreme hiking and spray in seriously high winds is pretty remarkable, and no doubt the balance of the rig to everything else is what makes it work so well.

The rig almost looks like a very conservatively sized ketch or yawl sail plan with its mizzenmast removed, and that minimalist solid trunk cabin-like dodger adds a very retro sensibility to it, like some classic racing sloop-

<http://classicsailboats.org/wp-content/uploads/2011/07/image42.jpg>

same goes for the reverse stems, which look both retro and futuristic here...very cool boat indeed.

**Small Tri Guy**

December 6, 2013

I agree ... totally love this boat. It could be a bit wet at times, depending upon conditions, but that's not a big deal IMO. Lots of spray-skirt options available out there ... especially homemade.

**ian**

December 6, 2013

The lines and smallish rig look like they'd also lend themselves well to a skin-on-frame/fuselage construction, that could be used to cut the overall weight and wetted surface even more while maintaining the same minimal sail area.

**Wade Tarzia**

December 9, 2013

A beautiful little tri! And an elegant folding system. I am a little concerned with the aka clearance over water — were you to sail this in rough coastal chop, what would be the result? They seem as though they would catch water in a chop.

**Small Tri Guy**

December 9, 2013

Hi Wade,

Great question. I decided to email Klaus and ask him about it because I was curious as to how he would answer :-)

That being said, he sent me an update to the Trika design that I am going to post this week. I think you'll be interested in this new design update.

Now here is how Klaus replied to your question:

"For my prototype I built simple and cheap wooden folding arms which work very well in sheltered water. The new plywood akas which are included in the plywood kit have about 1.5" more freeboard and will cope a little better with waves and also look better. Of course the Trika 540 it is not especially designed for high waves and – as many small boats – it likes longer waves better than the short choppy waves, but if reefed in time and combined with the new 100 liter amas I think it needs not fear comparison with its competitors."

**ian**

December 10, 2013

I also notice in the PDF data sheet that the designer has made the boat easily adaptable to a more traditional seating and tiller steering configuration, that might not overcome the freeboard issue that Wade describes, but might help a bit in heavier conditions compared to the boat being totally dependent on ama displacement for stability with a static crew.

The other thing about ama volume is how it is distributed vertically; these amas are not just low volume but the more or less traditional shape with the deck being the widest point means that you don't get the benefit of the largest chunk of buoyancy until it is almost buried to deck level... many lower volume amas and wave piercing designs are almost upside down in section compared to traditional hulls, with the widest point being maybe a third of the way up from the keel, narrowing as it goes up-

<http://www.catsailingnews.com/2011/04/wave-piercing-and-volume-distribution.html>

Besides the effects on pitching and wave piercing, this design also gets the bulk of the ama volume down low where it can work to counteract heeling forces without having to submerge everything so deep before maximum resistance is met.

I'm very interested to see how the larger volume amas look and function and also to see the boat rigged up for standard hiking and steering controls.

**Patrick**

March 18, 2014

any news on kits being available in USA?

**Small Tri Guy**

March 18, 2014

Hi Patrick,

I emailed Klaus a couple of weeks ago and he said that he hoped to hear back from the kit supplier "soon." So to my knowledge, at this date, no kits are being offered yet. He may announce it on his website before letting me know, however, so don't hesitate to check out his site, or even email him to ask. Klaus usually replies to my emails within 24 hours.

**Reuben Filsell**

March 20, 2014

Love the look of this;

But I'm not seeing the update anywhere, you know, 100liter floats?

I've been looking for something like this for a family play boat and lovely that it can be paddled solo.

My only concern is it looks a bit fragile for where I'm at, Western Australia.

Great for the Swan river but a 25 knot sea breeze ? Not so sure, the bigger floats and maybe fixed gullwing crossbeams and a bit of carbon might fix that.

Good effort, love it !

R

**Small Tri Guy**

March 20, 2014

Hi Reuben,

The Trika version with bigger amas can be seen here: <http://smalltrimarans.com/blog/?p=10791>

**Small Tri Guy**

May 12, 2014

Reuben,

Klaus sent me more info about the floats. Many guys have been asking about the different ama volumes. The original prototype boat (as seen in this post) was designed with 80-liter floats. The building plans for the new Trika 540.2 feature 100-liter floats. The TriRaid version of this boat, which is Roger Mann's prototype (featured at <http://smalltrimarans.com/blog/?p=10791>) has 150-liter floats.

Hope this helps clarify things a bit. The bottom line is anyone buying plans for the Trika 540 now can get the building specs for the 100-liter floats.

**Chris Veenstra**

September 24, 2018

Is the trika 540 kit Available in Australia?

**Small Tri Guy**

September 24, 2018

I don't think so Chris. But contact Klaus (the designer) just to make sure. You can certainly buy the building plans from him, but I am not sure about buying a kit if you live in "the land down under."

**Skeezix**

March 16, 2021

Update: Kit available from Chesapeake.

**Noel Sawyer**

September 10, 2022

Are plans and kits available in Australia for the Trika tri, now?

**Eric**

November 9, 2022

Can the Trika also be used as a rower instead of paddling? Installing a Drop-in Rowing Unit? So if you are not going sailing and only bring the main hull.

# Expanded Trika Design Creates the TriRaid 560 Trimaran

December 12, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Klaus Metz, Roger Mann, Trika 540, Trika Trimaran, TriRaid 560 Trimaran, TriRaid trimaran

## Comments

### Munter

December 16, 2013

Nicely done. Sitting the boat aside the dock makes me wonder – can you board the tri without sinking a float?

### Stefano

December 20, 2013

Boarding the boat: it says the float is 3 mm glassed. I'd be weary about stepping on it. Other than that, unless you are over 260 pounds you should be able to do it due to the buoyancy of the amas and weight of opposing ama to counterbalance a little.

Question to designer: is the foldable system in the project? I love the whole thing and weight @87 kgs

### Stefano

December 20, 2013

Having read more, I love the whole idea but would make sleeping on board feasible for 2. Perhaps à la Jim Brown with some kind of fixture to install a tent over a platform ( not while in a challenge, no).

I would also consider installing my beloved " terraces" to create a stiff rowing machine instead of paddling one. 3 main benefits for just 4-5 kgs wight increase:

- 1) you can lie, walk and sit comfortably all around the boat
- 2) you can use this extra width to install oarlocks and perhaps a sliding seat. Much more power than paddling
- 3) a great amount of extra torsional stiffness and last but not least much less spray aboard if tapered and carried sufficiently towards the bow.

For paddling purposes, I would strongly consider a two mast windsurfer carbon fiber rig à la adventure trimaran ( see posts here) you can take them off and paddle with no mast oscillating at each stroke. This was the option with professional fishing boats in the past.

### Small Tri Guy

December 20, 2013

Hi Stefano,

My understanding is that the plans contain everything both seen here and also talked about in the future. In other words, buying the plans will give customers access to all future additions (if any) that will come as part of those plans.

### Small Tri Guy

December 20, 2013

"Terraces" Stefano? Do you have any pics of those? They sound like a great idea.

### roger mann

December 20, 2013

Hello, I am installing the tramps this week ( very much like Hobie Islands) and that would make entering from the dock ok. But as it is I just fold the ama in next to the hull and jump right in the boat and then push off and unfold. My drive well takes up room for sleeping but maybe a open bulkhead behind the rear seat will give enough room for two? That is one for Klaus.

Yes, walking , standing, sleeping in the boat is no issue at all. Because I installed a thicker deck you can also sit everywhere on the deck. I am able to pedal at 4 mph easy pace, paddling at the same pace I cannot keep up as long but still easy. My double blade converts to a standup paddle and I can standup paddle although it is slower but helpful around docks. Some good ideas. I am sure it can be rowed well with the amas folded. Just as a note on my second sail I hit a top speed of 9.9 kts and averaged 6.0 for over 5 miles in 12 mph wind + gusts. I am really enjoying the boat. Small Tri Guy is correct about the plans. And there are some other very interesting ideas in the works and not mentioned yet that I am sure folks will be very interested in. I can mention one now because I have tried it and know that it works. If or when I want to go into very narrow areas I can take off the amas and they mate together tops facing each other and I am able to tow them behind the boat with the akas still attached to the hull or stowed. Mating together that way makes a very stable "ama Boat". This was done in order to attempt the wilderness waterway in the Everyglades Challenge race which includes a very narrow passage called the "nightmare". When I tried to mate other amas together side by side it was very unstable and when carrying a load on top wanted to go "turtle". Klaus has been very helpful solving special needs like these. A last note the boat does very well just by itself paddling with no amas or rig. Roger

### Small Tri Guy

December 20, 2013

Hi Roger,

Thanks so much for sharing. Great info. All the best to you in the Florida Challenge too!

### roger Mann

December 28, 2013

I too would like to see the terraces. Tried to find anything on the web and had no luck.

I have added a few more photos here- dodger, ama's mated etc. , Thanks, Roger

[http://s1263.photobucket.com/user/rogermannorg/library/#/user/rogermannorg/library/TriRaid%20560?sort=3&page=1&\\_suid=138823669868508662570281244578](http://s1263.photobucket.com/user/rogermannorg/library/#/user/rogermannorg/library/TriRaid%20560?sort=3&page=1&_suid=138823669868508662570281244578)

I really enjoy the small trimaran site.

**Small Tri Guy**

December 28, 2013

Hi Roger. The "terraces" that Stefano is referring to are the pale green benches that are attached to the sides of his trimaran's center hull. You can see them at the following URL: <http://smalltrimarans.com/blog/wp-content/uploads/2013/12/trimaran-terraces.jpg>

**Reuben Filsell**

March 4, 2014

Love the look of this boat !

Question, can you use the main hull as a canoe without the trimaran components ?

**Small Tri Guy**

March 4, 2014

Hi Reuben,

Yes, the main hull is designed as a kayak hull, with the opening much roomier than normal. But of course, the kayak hull can be paddled to one's enjoyment :-)

**tom rough**

November 21, 2014

This boat is the cat's meow! Can I buy one already built?

**Bruce Matlack**

March 27, 2015

I just bought this craft March 21, 2015, from Bob Nichols after seeing it on the trailer at the EC finish motel parking lot, because it looked exactly like what I want to take to the Bahamas (by ferry). I will have it at Cedar Key '15, and will be interested in ideas for dropping a swing CB into the Hobie peddle drive trunk, instead of the leeboard situation as built, or ideas on a leeboard. Also, I would have interest in the convertible SUP paddle talked about in the builder's text. Bob added larger Smyth sail and improved Nacra section rudder. I am looking forward to it surfing well. Currently stored on Anna maria Island.

**Small Tri Guy**

March 27, 2015

Hi Bruce,

That is very cool. Perhaps I can visit you when I come to Florida next time?

;-)

**Colin**

July 26, 2019

Hi. Like you design on the outriggers or ama's. Keen to try this design with existing hull. Any way of purchasing pdf etc for these? Thanks

**Small Tri Guy**

July 26, 2019

Colin, you should contact Klaus (the designer of this boat) using the contact info found on his website and ask him directly: <http://www.metzboats.de/>

# North Channel Adventure in Windrider Trimarans – July 2013

December 20, 2013

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: camp cruising, Windrider, windrider trimaran

## Comments

**ian**

December 22, 2013

This is not only a well written accounting of the events of a cruise in small boats, it really gives an insight into how one thinks and acts in the situations that arise and doesn't jazz up or sugar coat anything or endlessly wax philosophical like so many cruising stories do.

By just sticking to the details in an unvarnished manner and in order, the author really conveys the planning and relaxed-but-aware sensibility that makes this stuff work, and how it gets challenged and must be balanced...

too much planning and awareness and you become a dock bound, stressed out control freak trying to micromanage hypotheticals...too much relaxation and you find the mainsheet down your pants leg in open water in a blow.

In the big scheme of things, that kind of incident is FAR more likely and will cause more soul searching than getting seriously beaten up by a huge storm (or should), since in a huge storm at least one part of the equation is out of your control and it's a given that in a big storm there is potential danger, parts break, etc.

You hook the family jewels to the running rigging and it's pretty much on you.

Anyway, this is probably the closest I've ever seen to someone writing in the manner of Hemingway without obviously trying to- it's a style that's very well suited to illustrating the simple, in the moment awareness that you must have when doing this kind of thing, and mirrors the methodical approach to problem solving that cruising adventures entail.

Anyone considering this type of cruise or even a more luxurious one on larger boats would do well to read these accounts, and I think many people who maybe aren't sailors would still appreciate them just as a window into something unfamiliar, that isn't cluttered with sensationalism and artistic license and gives a true sense of what this activity is like...collected they'd make a nice book.

**ian**

December 22, 2013

"On the chart I pointed out what looked like a thicket of rocks southwest of Fox Island, right in the middle of our planned track. Paul said, "You can see the rocks, you can sail around them. And if you bump, no big deal""

Paul is in good navigational company here-

"The church says the earth is flat, but I know that it is round, for I have seen the shadow on the moon, and I have more faith in a shadow than in the church."

? Ferdinand Magellan

# 17-Foot Trimaran Built With Expandacraft

December 22, 2013

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: expandacraft, expandacraft trimaran

## Comments

**ian**

December 23, 2013

This is a really nice looking boat...they've obviously done a ton of design and tooling to get to where they are, but so many attempts at this type of collapsible/modular boat, nesting dinghys, etc. end up with a kind of klunky look to them that the examples that work and still look good really stand out.

I think it mostly comes down to money; there's pretty, cheap, and functional but you usually only get to choose two...economy of scale may help lower costs, and if the price listed for this boat is in line with what anyone putting one together themselves would pay, then it seems like a real bargain compared to many other tris in this range, and probably better suited for down and dirty stuff like beachings and rocks and fishing/diving type activities- very utilitarian.

A couple of questions if the builder or anyone from Expandacraft sees this-

is the price listed for this boat heavily discounted because it's a prototype/proof of concept thing, or can anyone put something like that together for around \$5K?

Also, is the aft main hull section with a transom something new, or a customization of a center section...?

One big drawback of the plastics used in these types of rotomolded hulls is that they are practically impossible to modify or repair with any degree of permanence...so that's one potential issue as far as making the idea adaptable to various designs/uses.

The tri layout allows a lot of leeway compared to something like a sit on top kayak where a scuba tank holder or battery box might be of no use to some users and a negative selling point...there's lots of places to hang stuff on a trimaran so you don't have to give as much thought to in-hull storage. But the one nagging thing about this concept to me is that rotomolded boats pretty much have to stick to what the factory molds into them, and these hulls have no built in storage that I can see. I get that you don't want to encourage overloading, especially amas...but it seems like there's room for improvement.

Are there any plans to expand the number of available molded parts with the locking joint, so that maybe you could get sections with other features like areas that could be used as battery boxes or live bait wells or dry storage, or different stern configurations, non-wave piercing bows, etc?

**Dan T**

December 24, 2013

I kept a running list of costs for the build, it came in at \$3,400. That is including sail kit at \$1,200 and leeboard setup at \$120, both were used and are no longer in production so they remain question marks as far as price goes.

Aft main hull is modified, but ultimately same mold.

**Robin Bennett**

December 25, 2013

> One big drawback of the plastics used in these types of rotomolded hulls is that they are practically impossible to modify or repair with any degree of permanence

There are plenty of youtube videos of using plastic welding techniques to fix plastic kayaks. I particularly like this one:

<http://www.youtube.com/watch?v=eN2mNBASYQ4>

**ian**

December 27, 2013

You can certainly do small fixes like patching holes, but I was thinking more along the lines of major modifications...rotomolded hulls tend to rely a lot on the flexible shell as single structural unit and when you cut that shell open it allows for more flexing that can play havoc with any DIY joints you may have made.

It's also really hard to keep the heat consistent at a temperature to create that kind of truly welded bond using DIY tools, without overheating to the point that the edges pull away or worse, things slump and deform...so the result is that you usually get a cold joint that will crack under any serious flexing if the cut is of any real size or isn't well reinforced with some kind of backing material.

It's kind of a case by case deal and "permanence" is the key qualifier...a lot of these plastics don't even like to stick to themselves and while it can be done, a lot of the "welding" type repair techniques don't really create a weld-like melding of materials that is sufficient for the kinds of structural loads you might get when doing something like adding a transom or cutting a deck partially away or shortening a hull section by cutting a middle section out.

Note that in that video the guy mentions that parts welded onto the hull tend to pop off when bumped and need re-welding...in that sense that "weld" is often more like a hot glue joint...perfectly fine for some things but I wouldn't want to rely on a DIY welded joint for structural purposes in any of these slick, flexible low density materials.

**ric**

January 5, 2014

#1 hulls are difficult to modify/repair. Leave the hulls alone. They are what they are, they do what they're supposed to. All the modifications and customization go on the supported structures anyway. These hulls take a beating better than you would expect. I've fabricated several different deck structures for fishing and wave riding, and I've just taken my first cruise on an umbrella sailer, and make no mistake, you can't pack this much fun into a trunk without it being illegal.

**ian**



January 6, 2014

I'd definitely be interested in hearing about the transom section on Dan's boat, and how the modification was done- it \*is\* possible to modify a mold by damming off the section(s) you don't want, effectively creating a transom...I've done it with FRP layups/molds but have no experience with actual fabrication of rotomolded hulls.

One fairly simple solution would be to use an existing hull section as a mold for laying up the interlocking joint using FRP, and then create whatever hull you needed beyond that as a one-off...it could even just be a short section with a transom, that would probably offer better performance under those kinds of loads than a rotomolded shell.

Ric says "All the modifications and customization go on the supported structures anyway" and that's a good way to go, but in the case of Dan's boat the rudder/transom arrangement doesn't follow this rule.

There's certainly no reason why a boat like this couldn't use the crossbeam assembly to hang a rudder or a pair of them off of; whether or not it's more/less complex than modifying the center hull for a traditional rudder setup is probably going to depend on the use/user. I personally think there's a lot to be said for using two smaller rudders on some of these boats, especially on adaptations where the existing hulls aren't designed for that kind of heavy point loads that a single large blade can create. If you hung them from the crossbeam structure you could avoid that altogether.

If Ric's boat(s) or any he knows of are doing this I'd love to see examples.

**Wesley**

January 9, 2014

I'm the designer of Expandacraft and it's nice to see my hulls used in unconventional ways. Interesting to hear some of the ideas out there too. About the rudder, as a trimaran, I would hang two rudders off of the structure for redundancy and not bother with modifying a hull part. Parts retail for \$115.00 and one day I'll mold one with a flat stern for mounting whatever you need to. Right now, I'm just weeks away from announcing the pedal drive so that's been my focus for some time. We also have complete outrigger kits and ready to sail catamarans. Price range is \$2700.00 and up. Anybody out there want to experiment with a big kite and foils? That's on my list too.

# A Peek at the HUSKY 6.0 Trimaran

January 1, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Husky 6.0 trimaran, Husky trimaran

## Comments

### **Stefano**

January 20, 2014

Hello... Nice boat... any contacts for Mr. Michel Fedisch ? I cannot find references on the net.

Thanks in advance, Stefano

### **Small Tri Guy**

January 20, 2014

Hi Stefano,

No, I don't have any contact info either. Perhaps he'll see this post and reply.

### **Jens Wellejus**

February 13, 2014

I send him, Paul G, a note with a link to this entry :-)

### **paul**

February 14, 2014

Hi,

Contact me here ... wegosurfing AT people.net.au ... so I can answer any questions

Cheers

### **Owen McKenzie**

February 20, 2014

You can contact Michel in regards to the Husky trimaran design at michel.fe AT gmx.de

### **Michel**

April 22, 2014

Hi Folks,

I am the designer of the Husky 6.2. If you are interested in the concept you can find more information on corley's multihull blog.

<http://trimaranproject.blogspot.com.au/p/mamacocha-first-husky-6.html>

my e-Mail Adress is on the bottom of the article. But please have a little patience. I am a boatbuilder and have a lot work at the beginning of the sailing-saison.

### **Small Tri Guy**

April 22, 2014

Hi Michel,

Great to meet you. Thanks for the link too. I'd like to do another post about your Husky trimaran. Let's see if we can make that happen.

# Ebook by Russell Brown Shows Boatbuilders Painting Techniques

January 6, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Rolling Perfection, Rolling Perfection ebook, Russell Brown

No Comments

# Snapshots of a Discovery 20 Trimaran

January 10, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chris White, Competition Composites, Discovery 20, Discovery 20 trimaran, Phil's Foils

## Comments

**David E Benn**

August 5, 2021

You had a pretty boat. It is most likely sold by now. The years are catching up and I was looking for my last boat.

# Seaclipper 16 Trimaran with New Mods

January 17, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, Seaclipper 16 trimaran

## Comments

**Wade Tarzia**

January 24, 2014

Nice! How much do the swing-beams overlap? Looks about 18 inches?

**Barney**

September 6, 2014

Can you post or pm a picture of how the foot steering system is arranged in the open cockpit design? Thanks

**Michael K**

June 1, 2016

Hello Bill,

I have several questions about your SC 16 in particular. Please reply to HOWAYA [at] AOL [dot] com if you see this message.

**Jack**

December 15, 2016

I bought this boat at the St. Michael's Maritime Museum auction. I am looking forward to sailing her!

# Garage-Built Hydrofoil Sailing Trimaran

January 20, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Hydrofoil Sailing Trimaran, hydrofoil trimaran

## Comments

**Craig Tuffnell**

January 21, 2014

Hi Everyone

I thought I should chip in as its my boat (Kotuku). The aim on the project was to build a foiler that was easy to sail and easy to transport – keep it simple.

The nose dive was the only significant incident in 4 days sailing and was partially due to poor sailing on my part. Once it dug in I didn't let go of the mains sheet for a while so it went down. But I didn't completely pitch pole so that was in some ways a success. Where I was sailing is a challenging spot. On my last day of sailing (the cloudy day and the day of the nose dive) the wind came in gusts from the norwest, then the east, I was becalmed for a while and then a southerley all in the space of one hour. Gusts would come from opposing directions!!! I figure if I can sail a foiler there, I can sail it anywhere.

BTW, the amas are on pivots so do not affect the foil pitch. I also have one fence on the foils, but I'm not sure how well it works yet.

There are still loads of improvements needed and I appreciate your comments. I have a small flap on the rudder foil, but I cant adjust it easily. I'm still working out the best adjustment for it to have the yacht flying at the best angle. I should make it adjustable while sailing!!! The rudder and rudder foil needs replacing (long story) and I think I have too much power in the main sail too.

I like the "regular guy's hot-rod" small boat. In some ways this sums up the project.

Cheers,  
Craig

(submitted by Tom Williams...copied from <http://www.boatdesign.net/forums/multihulls/small-surface-piercing-trimaran-foiler-49393.html>)

**ian**

January 24, 2014

Very cool project...I'd suggest adding a surf ski style bow fin (I think there's another name for it, but I can't remember) to the main hull to help with crash prevention/recovery, and it might help a bit with spray deflection too-

<http://www3.pictures.gi.zimbio.com/International%2BSurf%2BChallenge%2BTest%2B2%2BYwNHxxMT09NI.jpg>

[http://magnum-mania.com/images/1\\_17\\_c\\_full.jpg](http://magnum-mania.com/images/1_17_c_full.jpg)

**Frank**

January 30, 2014

Love it! I'd really love to make one of my tris into a foiler one of these days, or better still, build one from scratch. That's an awesome job for a home-brew builder, Craig. I wish I lived close enough to see it firsthand! One of these days...

- Frank

**Mark Harrison**

January 30, 2014

Such a fantastic machine. I am really enlightened by this. I liked the duck billed platypus idea of the canoe – easier to catch onto maybe as well on landing ! Best of brilliance developing the dream.

**Vincent Bredoux**

April 19, 2014

Wonderfull machine... I wish I did it...

After years flying with gliders, I came back to an old leisure : sailing.... So, I wanted to mix both in a home build machine.

I started to develop such a minimalist trimaran foiler with V foils, based on the one of PK of Fred Monsonnec that you can see on the web (<http://foils.wordpress.com/2007/04/19/le-pk-de-fred/>), except the choice of the foiling system (V instead of T!!!).

I made the reduced model 1/5 in order to analyse possible problems. My goal is to get is very easy and fast to mount and sail.... and most of solutions i wanted to implement are on... your boat!!!!

Some differences : I plan to use a sail of windsurf with cambers (because I have it... and I use it with low winds!!!). The back foil is suppose to get an auto adaptative position of the flight (like moth, but not for the main foil... with a control with the stick).

I'm testing infusion for the hulls.... but only with fiberglass (cost...). When I'll be satisfied, I'll make the real one!

I'd love to share the problems you faced and to get some more informations with your choices (profil for foil, pictures....).

Vincent

**Fred**

May 25, 2014

Yes, this is really a very beautiful and interesting boat.

I put a link with your video on my blog in March.

I'm one author of the french blog "Foilers", and I built many years ago a little trimaran with hydrofoil, PK (thank you Vincent to make reference to my boat !).

More pictures here: <https://foils.wordpress.com/tag/pk/>

I hope you find great pleasure with your boat...

You probably know Gary Baigent, one master of the foil in NZ, if not I can send you his e-mail.

Vincent, if you read this message, don't hesitate to contact me on Foilers...

Cheers

Fred

**Pete**

July 6, 2017

Top stuf

**Sam Langhorn**

January 1, 2021

This is a pretty old thread.

@Vincent

any progress on your version of the trifoiler?

I just chatted with Craig. Looks like he is making some progress :-)

...I am one of the few who would pretty much build the same type of foiler.

Greetings

Sam

# Unidentified Trimaran in Canada (is the Akila 19)

January 24, 2014

Categories: Small Tri Info - All

Tags: mystery trimaran, unidentified trimaran

## Comments

**craig follett**

January 24, 2014

Hi

Its the Akila 19 from Maillette Yacht Design in Canada

You can see more at <http://www.nauticaltrek.com> ... also has a design called the Kolbri 23

Cheers from Norway

**ian**

January 24, 2014

English translation of the design overview at the link above-

"The Akila 19 is a high performance trimaran designed and built by François Maillette. It combines high volume amas and a planing central hull form. Its longitudinal and transverse stability and resulting speed make it a spirited machine ready to race against the catamarans. In addition, its robustness and storage volume in the central hull make it the ideal boat for a sailing adventure camping along the coast."

It's pretty interesting to compare this boat with Kurt Hughes' Trikala 19 specs and layout: the Akila has the same LOA but is 12" wider, has 2.5 sq meters more upwind sail area and about that much more in the chute, and is about 120lbs lighter-

Based on the Trikala description on Kurt's site they seem aimed at pretty much the same market/uses-

"The design program called for an easily trailerable trimaran that would match performance with similar sized beach cats, but offer more comfort. You can hike out if you like, or not. It will seat four people. Unlike on a beach cat, you can bring the kids and a picnic basket. The 19 was designed to be a daysailer, with storage inside, but the couple above managed to put a snug double berth in it and cruised the Med with it."

[http://multihulldesigns.com/designs\\_stock/daysail/19\\_tri.htm](http://multihulldesigns.com/designs_stock/daysail/19_tri.htm)

I'm assuming that the Akila uses the same type of hinge system to fold as the larger Kolibri, that can be seen here-

<http://www.nauticaltrek.com/images/23/22215.jpg>

The Hughes design uses straight tubes that could allow it to be narrowed on the water-

"...the overall width is easily adjustable. The amas simply slide together. There is no reason to accept the disadvantages of an expensive folding system. Shellbacks have noted that the tubes must bind up when they slide. Mikel, the developer, worked out a nice system with teflon cleats that the tubes run on."

Both are really nice approaches to the idea of a fast small tri that you \*could\* camp/cruise in if speed was a priority- I think "ideal" is stretching it a bit and while I am a big proponent of fast cruising boats that can stay out of harms way by minimizing exposure, I always wonder about the realities of breaking high tech bits in secluded places... people cruise all kinds of racing boats successfully and it's usually not the hull designs that can't handle it, it's construction methods and materials and parts that were optimized for light weight at the expense of durability that fail.

You can certainly build things that aren't so prone to breakage in exotic materials and buy some weight savings, but "buy" is the operative word...

bottom line price of either one is the big unknown factor here- except for the tramps the Akila doesn't look that much more comfortable or capable of storage as a similar kayak or decked canoe based tri or something like the TriRaid featured a while back, so it's main strength would appear to be speed-

<http://smalltrimarans.com/blog/?p=10791#more-10791>

The Hughes design's bigger "cabin" area and a more protected cockpit look like a more ideal setup to me as an all around boat that meets the "competitive with beach cats but can camp/cruise it" design goal both designs share, although it does \*look\* like it would probably be slower both on paper and in pics.

The ability to be narrowed on the water and for beaching/camping is another nice feature in both the TriRaid and Trikala designs that the Akila lacks...maybe not a huge deal for some people but in places with canals or narrow channels and docks and slips and the like to contend with, it might just be a deal breaker- 14'4" is a lot of beam to drive around in tight areas and traffic, and end ties are premium space at marinas.

**Small Tri Guy**

January 24, 2014

Great commentary Ian! I especially like your comparison to Kurt's Trikala design. These boat's are realistically performance-oriented daysailors. And breaking something on any boat, especially a high-tech one, out in the middle of nowhere is going to make for a very bad day. I listened to a marvelous interview with Roger Taylor, author of "Voyages of a Simple Sailor," at <http://www.furledsails.com> last year and he addresses the issue of things breaking on a boat while out to sea. (Hint: expect it to happen, and do your best to be prepared!)



Any camp-cruising experience on the Akila is probably best thought of as setting up a single-person tent on the tramps. Surely not long-term either :-)

Here is a spacious accommodation for that - <http://www.catomaoutdoor.com/Catalog/ProductInfo.aspx?id=192&AspxAutoDetectCookieSupport=1>

**ian**

January 24, 2014

You can't claim that a solid, stout cruising oriented boat will be competitive as a match racer and be taken seriously by potential buyers doing their research, but any sailboat over 16-18' or so- big enough to lay down and stretch out on somewhere- is ripe for the "and it makes a great cruiser too!" sales angle, it seems.

I think most people looking to do that kind of thing are doing their homework too and will take those kinds of claims with a grain of salt; but it \*can\* suggest to an inexperienced buyer that a boat might perhaps have more of a potential market and/or higher value at resale than it really does.

A more complete Akila/TriRaid comparison is another I'd personally like to see- especially cost and speed figures and the ratios between them for each boat...my gut tells me that the cost figures are likely very far apart but the performance disparity probably isn't nearly as dramatic.

**ian**

January 24, 2014

Breaking things is always a possibility on any boat but the thing to remember here is that multihulls have very unique issues related to speed and inertia that need consideration.

It's not uncommon at all for these small tris to be going in the 10-12 kt range and some regularly go a lot faster...no matter how efficient a hull you have that takes a lot of energy that has to go somewhere...unfortunately it can't all go to thrust so you have potentially higher stresses created in a structure and gear that in even a serious offshore cruising tri is purposely built light compared to traditional cruising boats/gear.

The flip side of a tri's fast acceleration is that all of that momentum can come to a crashing halt just as quickly- faster, actually. Burying the bow of a 40' cruising ketch that weighs 25 tons at 12-15 kts under full sail and coming to a dead stop would likely tear that boat or its rig apart, the lower inertia of the lighter tri saves it in the same circumstance...a low aspect rig can help too.

Point is that we're talking about boats half that size doing similar speeds, that would have a monohull of the same length already sailing under its own wake if it held together that long. These boats are harnessing a ton of wind energy for extended periods, can pick up even more because they are fast enough to regularly surf/plane on waves and swells or even boat wakes, and one false move on the helm or an odd wave or wind shift can redirect most of that energy where it wasn't intended to go, or for longer than it was designed to handle it.

So it's a critical balancing act to begin with just to get a tri light enough to perform but beefy enough to be durable against the kinds of unique forces multis encounter like hobby horsing, racking in quartering seas, tendency to dive/pitchpole/crash, etc. and race boats built ultra-ultra light are at a disadvantage from the start no matter how high tech they are...add in the rigors of even short term cruising like docking, anchoring (maybe kedging in an emergency), beaching and associated portaging and the like and a light boat designed with sailing as the primary focus like a daysailer or racer can show its flaws pretty quickly as even an overnight /weekend cruiser.

You still have tie your anchor or dock lines to something on the boat whether you are in Antarctica or on a placid lake, and grab something to haul it onto the beach with, so at least that stuff had better be strong and easy to fix. One huge problem I've experienced personally on commercial beach cats with rotating masts is that if you ever have to tow one, there's often no strong point that is truly suitable for towing in the kinds of conditions where you might need to be towed.

Maybe not a big deal to a guy who sails his Hobie in a bay or lake in only good weather, but if you are cruising the need or desire to accept a tow is a very real possibility, and even with a tri with a more traditional main hull to hook to the typical hardware used to winch a boat on a trailer might not be up to the task in big seas or with some other structural issue going on of the type that might have you getting towed to safety...one mark of a "real" cruising boat is a dedicated bollard or other strong point in the bow that is designed to remain intact and integrally connected to the hull structure no matter what, that you can then anchor, tow and kedge off and away from things with.

**Small Tri Guy**

January 24, 2014

Great points Ian. In mentioning something breaking, I was thinking about a daysailing scenario with something pretty "small" happening (as did to me last summer). I was sailing a friend's Windrider in the Delaware River and the foot pedal steering's control line snapped as I was tacking the boat in the middle of the river. It was at that moment that a terrible, sinking feeling overcame me. I remembered that I'd forgot to put my little emergency repair kit, complete with trusty Boy Scout knife, in the boat before casting off. My wonderful afternoon sail tuned into a very uncomfortable, strenuous, sweaty, fun-less "situation" :-)

My bad. My stupid bad.

**ian**

January 24, 2014

A knife and an anchor are like seat belts in a car...you don't really need them, until you do.

I've been caught without both and paid for it, the former with many extra hours on the water waiting for winds to appear and tides to go my way...

and the latter accounted for probably the most dubious and ill advised event in my sailing career (so far), when during a day sail in a tight harbor I tried to pinch a friend's gaff rigged Atkins sloop up and around a piling with a day marker on it, and \*almost\* made it but caught the mainsail's dangling leeward lazyjacks on one tip of the triangular marker sign- which wound the whole thing up like a tetherball in a heartbeat.

We \*did\* have knife on board- an old butter knife that wasn't even serrated that I think was used to open paint cans because it wasn't even a good butter knife...so the only thing left to do was shinny up the piling, manually remove everything at great risk to fingers and feet as everything below pitched from the wakes of everyone now coming to see the idiots who wrapped their boat around a pole...followed by the boat leaping away the instant it was freed, which in turn required (at least in my

somewhat panicked mind) a slow and painful crawl/slide back down the piling over the barnacles and eventually into the water when the barnacle/splinter thing lost its appeal.

Worst part is that my friend and I both grew up on cruising boats and have many years of cruising/sailing experience and should have known better on all accounts- we have faced some pretty bad situations with weather and groundings and fires on board and other scary stuff, and did a lot of really dumb stuff in boats together when we were kids- but the worst injuries I ever got sailing was from sliding down that piling.

**Small Tri Guy**

January 24, 2014

What a great story Ian. It's always encouraging (and somber) to be reminded that these things can happen to any of us in an instant of forgetfulness (or momentarily poor judgement). And best of all ... such events force humility upon us :-)

**Stefano**

January 27, 2014

Great smile for Ian... here we say - do not be offended it's a local saying that the "fool's moment strikes anyone at any time"... (put any gross term you prefer in place of fool)

My experience with this, I could sailwise list a few at least, is that a good part of these moments are the breed of an excess of confidence, which should never be let aboard any vessel on the water. To put it with David Kananof of Wooden boat fame, "Yes indeed, if you sail the least that can happen to you is you become paranoiac about potential accidents occurring"...

I'm sure that Fate or whatever you might call it has a twisted sense of humor when I recollect the idiocies in which I have stumbled and the ones I have learned about... but they certainly make good stories for us "brine pickled water dogs" to tell... :-) Pass me the definition ... Fair winds to all, Stefano

**John Mani**

July 28, 2014

I really like this trimaran. I'm building a 20 foot tri myself based on similar ideas. The idea of having the double trapeze option out on the wings is very cool. Unfortunately i've never seen a video of either the Kolibri or the Akila in action. I also haven't found any report or description of how the boat performs and if it was able to achieve the goal of being faster than racing cats of the same size. John, Switzerland

# Introducing the International Small Craft Center at the Mariners' Museum

January 30, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: International Small Craft Center, Mariners Museum

## Comments

**ian**

January 30, 2014

That is an impressive collection of watercraft with some *\*extremely\** rare and unique examples, definitely worth a browse through their catalog if you can't go there.

I really like the fact that they feature not just some incredible traditional boats like *\*the\** original Nat Hereshoff fin keel/spade rudder "Dilemma" built by the man himself in 1891, but they also have nice examples of very unusual ethnic boats like the ngalawa and jangada *\*and\** also have an ice boat, the "Monitor" hydrofoil, a couple of very rare submarines, a very sophisticated Cuban refugee boat, a "Lifecar" lifeboat, a Tom Blake paddleboard and other surf related vessels, and a couple of record setting blue water passagemakers that I remember reading about as a kid...

"... Hugo Vihlen...sailed from Casablanca to Florida in 1968, aboard this

6-foot sailboat. On his third attempt Vihlen sailed 4, 480 miles in 85 days, and established the record for the smallest yacht to cross the Atlantic Ocean — a feat that stood for 25 years (1968 – 1993)."

If all that isn't enough, where/how on earth does someone come across the titanium personnel sphere from one of only four Alvin class deep submersibles built? That's some serious collecting.

**Small Tri Guy**

January 31, 2014

I met Lyles Forbes, the chief curator, over the phone a year or so ago. He was quite an impressive fellow. He seems to have an extraordinary interest and ability to collect marine-related antiques, media and related memorabilia.

# Weta Trimaran Article on All At Sea

February 8, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: all at sea magazine, Weta trimaran

No Comments

# 16-Foot Self-Designed, Self-Built Trimaran

February 13, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: 16-foot trimaran sailboat, small trimaran

No Comments

# Unmanned 19-Foot Trimaran Sails from San Francisco to Hawaii

February 18, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Honey Badger saildrone, Honey Badger trimaran, saildrone

## Comments

**ian**

February 19, 2014

I won't fault the builder for using a design that makes sense or for the tone of the article that implies that it is his invention, but the fact is that this of wing sail control idea is not new; the Walker Wingsail that was commercially introduced in the 80's offers similar one-touch throttle-like control including reverse, and uses the same type of articulated trim tab/wing on a boom as do a number of other experimental boats going back to at least the 1960's-

<http://www.planesail.com/history/1968PlanesailBot800.jpg>

<http://www.sailwings.net/tldescribed.html>

Sure there are slight differences in location of the foils, sizes, how many, etc, but it's not much different from aircraft that all use the same flight control principles regardless of where the various airfoils and control surfaces sit in relation to one another and how big/how many they are.

I applaud the guys ingenuity and ability to get his speed record attempt off the ground and into the books- but the idea of unmanned boats of this size cruising around unattended doesn't make me feel very comfortable at all, and the scenario of a network of autonomous drones following tagged sharks with their "locations patched into the international marine-traffic control system with a warning to stay away" is, to paraphrase the article, "the stupidest thing I've ever seen"...

and frankly the talk of scientific benefits is pretty much negated for me when the "science" involves seeking out data that confirms a foregone conclusion-

"I want to get the data we need to show that global warming is real," Jenkins says. "

-rather than seeking out data that confirms the truth regardless of what it may be, the way real science does.

**Small Tri Guy**

February 19, 2014

Great background information, links and commentary Ian! I also agree with your observation about how this fellow's stated motivation to gather data in order to "show that global warming is real." That stuck out to me too. Thankfully, it was a minor point in this article. And I also share some people's concerns about how unmanned vehicles, in general, are used. One can think of all sorts of uses, ranging from really helpful to downright evil.

My motivation for posting this was the information about the wing/wind technology. The use of wind to power a boat (or anything else) is a fascinating thing. That "land yacht" was crazy too.

**Robin Bennett**

February 19, 2014

I'm sure this guy's motivation is just to build cool sailing things, and the global warming, shark tracking, etc are just ideas to generate funding. At least, that's what I'd be doing in the same situation!

I was interested in the unusual combination of low-volume outriggers with a weighted keel. Presumably this is a response to not being able to reef, and thus being likely to capsize?

**ian**

February 19, 2014

I definitely wanted to cut the guy some slack and not attribute too much of the articles claims or implications to him directly...FWIW and in my experience/opinion, "Wired" doesn't always live up to its reputation as having a better than average grasp on technical stuff, or explaining it beyond very simple terms and ideas.

There's certainly a need for that but again, letting something so completely antithetical to scientific procedure to go by uncontested in a journal that purports to be on the cutting edge of science and technology makes me wonder just how much they really care about facts that don't support their views...and it's definitely not the first instance I've encountered.

That includes facts about the people they are reporting on and what they actually said- I imagine that just getting a mention in Wired could be a motivating factor for someone saying stuff that Wired might want to report on whether it's true or not, or they could edit what was said to create a sense of the interviewee taking a stand that they hadn't- and that certainly isn't unique to Wired.

anyway... I was also curious about the combination of a trimaran platform and a ballast keel.

I get not relying on the unballasted tri where you aren't directly controlling it in real time at the boat and can't recover easily from a capsize, but once you go for the self righting capability of ballast a lot of the benefits of the tri become less attractive- crew comfort and safety while heeling isn't a concern at all in a drone and the extra weight would seem to negate a lot of the performance gains you'd expect from a tri and could create more stress overall than either form alone...and in a real capsize situation the extra hulls and their initial stability might actually impede recovery, especially if it turns turtle.

That said, perhaps a complete dismasting was given more consideration than I'm giving it, and the extra hull volume might keep the thing from sinking completely before it could be recovered, the way a ballasted monohull might if it was adrift with no controls.

# Amphibious Trimaran Going Into Production

February 21, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: amphibious trimaran, hovercraft, watercraft

No Comments

# Making a "New" Trimaran From Old Parts

February 27, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: home built trimaran, new trimaran, Self-built trimaran

## Comments

**Marjolijn**

February 28, 2014

Ha Hans, Wat ben jij goed bezig!

Daarnaast ook helemaal in het digitale tijdperk beland. We kunnen je sharen op facebook, tweeten en diggen. Dit is voor jou natuurlijk a piece of cake lol :)

Veel succes op de werf!

Marjolijn

**Astrid de Vetten**

March 4, 2014

Wat leuk dit, Hans!

Met die geweldige foto van het middenstuk op een rollator, hahaha! Prachtig!

En dit seizoen gaat ie dan echt 'in bedrijf', toch? Gaan we nog een doop-borrel op het Raboes houden voor dit bijzondere bouwwerk?

Groetjes, Astrid

**Ruud D. Arpege**

June 21, 2014

Hallo Hans,

We hebben vandaag met elkaar gesproken op de steiger bij mijn boot Aurora. Ook heb ik je prachtige trimaran mogen bewonderen. Geweldig!

Uiteraard heb ik je filmpjes op YT bekeken.

I'm impressed!

groetjes

ruud



# Ninja Spider Trimaran No Longer Produced by SMG Multihull (Molds & Rights for Sale)

March 8, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Ninja Spider trimaran, Ninja trimaran

## Comments

**ian**

March 9, 2014

it's certainly unfortunate any time that someone's business plan fails, but in the FRP boat industry that might not have the negative effect on the long term success of the product that one might assume it would...it may actually be a blessing in disguise if the molds get into the hands of people who can run a business that has the stability that appeals to customers who are considering factory service and parts availability, warranties, etc. before laying down serious cash for luxury items.

In the long term, I'd say that if the hull/design is sound and meets a need it will stay in production in some form- maybe with long periods of downtime as people buy the molds and store them while they try to get the business part together, but if there's a demand it will get built.

It's interesting that you post this now; I was just reading a history of the Columbia/Islander boats where molds have changed hands multiple times, multiple brands/models were built from the same design, etc. from day one-

[http://sailboatdata.com/view\\_builder.asp?builder\\_id=22](http://sailboatdata.com/view_builder.asp?builder_id=22)

probably the best example-

"For the COLUMBIA 24, Glass Laminates took the ISLANDER 24 hull (which they built for Joe McGlasson), added four inches to the sheer, and designed a house similar to that on the S&S designed COLUMBIA 29. So, the 24, as well as the COLUMBIA CONTENDER 24, and COLUMBIA CHALLENGER 24, all derive from McGlasson's wooden CATALINA ISLANDER from which the plug was made. The faux planking, that either remained from the original hull, or created artificially, which became an Islander trademark, was removed for the Columbia line."

[http://sailboatdata.com/viewrecord.asp?class\\_id=2930](http://sailboatdata.com/viewrecord.asp?class_id=2930)

It was only when all the molds burned in a fire in 1991 that they stopped building them.

So while it's no doubt a personal setback for the people who had the dream to build these boats, good designs that perform as advertised and offer good value won't go away just because of business issues.

FWIW, my concern if someone asked me about the viability of buying the molds with an eye towards marketing the boat would be that the market for that kind of sporty long/skinny tri with minimal accommodations seems fairly saturated already so you are competing for a small number of potential buyers who already have a lot of options available....

If you can significantly outperform those other similar boats in speed or cost or ease of use then you might have a plan; otherwise when they all start to homogenize into a "type", they all start having similar specs that translate to similar performance, and you will have to offer better pricing or solid factory resources and support to stand out and make a go of it.

**barry**

March 17, 2014

any one know of a secondhand tri? (Downsizing from a Tornado cat)

**Gerry Schein**

May 15, 2014

Hi Ian, my feedback to your FWIW comment:

When I designed the NINJA multihull concept my thought was a little trimaran that looks like a Mini Orma, that fits on the roof of a car, that you can assemble without any tools, that can store the mast practical inside the main hull, that you can sail fast and safe, that you can easy transform to a tricky tacking Proa , that you can sit like a king on, that needs the same space in the garage like two bicycles, is already unique enough to stick out of the current products!

That was my reason to design this boat. But I agree 100 % to you , the market doesn't need a little boat that is already on the water...

What I've totally underestimated were the nerves consumed by producing a high quality boat with unqualified labour here in SA.

Gerry Schein

Designer of the NINJA

**Small Tri Guy**

May 15, 2014

There are a number of factors that make for a "successfully selling product" apart from actually creating a great product in and of itself - which the Ninja appears to be. The Weta appears to be a commercial success. Ted Warren's "Little Wing" is a successful venture. The market for small tris is obviously a lot smaller than the market for small traditional boats. As time passes, that may change a bit. Will the coverage of multihulls during the America's Cup create more interest in multis? A lot of guys in the world of multihulls hope so. And I hope the molds for the NINJA find a good new home.

**Tony**

August 31, 2015

Hi Gerry,

Firstly my hats off to you for making this machine. The hours spent in design can be seen in the finish simplicity.

Secondly, it is a unique design. Truth be told I have been working on a similar design but only from a conceptual perspective for some time. It's quite amazing that if though through clearly that ideas from 2 complete separate perspectives can converge to a similar output.

Unfortunately having reviewed many videos of the Ninja I consistently see one draw back with it's performance. In rougher water the amas appear to drag in the water a lot, a lot of spray and drag is encountered.

While this is a set back to top performance it is only a small issue which can be easily overcome with a different approach to the ama designs along with a completely new design outrigger hulls and foils.

I am currently sourcing parts to make my prototype and would be interested to know the cost of one of your designs that I could modify accordingly?

# Jim Brown Talks Small Trimarans and Small Catamarans

March 13, 2014

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: catamarans, Jim Brown, trimarans

## Comments

**ian**

March 14, 2014

I'm so glad this was posted, there's so much valuable insight in both the interview and article...this bit in particular articulates something I've been considering for quite some time-

"Let's begin by mentioning all six axes on which a boat moves: There are the usual modes of roll, pitch and yaw, which almost anyone can visualize.

But then there are the other three: surge, sway and heave. Surge is the tendency for boats, especially sailing boats, to proceed in spurts of acceleration and deceleration. Sway is the boats purely lateral nudging left and right as it sails across the reversing currents within waves. And heave, the most obscure motion of all, is a boat's propensity to bound up and down vertically like a spar buoy bobbing in a swell. This is not "hobbyhorsing" or "rocking chairing," though that pitch is often combined with heave.

Heave is a purely vertical, "bouncing" motion that is seldom recognized because it is often obscured when motion on all the other axes is happening at the same time."

here's a couple of other things to consider:

roll, pitch and yaw are design and operator input dependent- all can be detrimental or beneficial changes in orientation in certain applications and can be manipulated with fairly simple controls or operator actions or design schemes involving distribution of righting moment, volume, crew weight, etc.

surge, sway and heave are the result of forces largely out of anyone's control- winds, seas, and gravity. Those all contribute to the first three motions \*but\* how the boat responds is up to the designer and his priorities and skills, and he has little control over how much of that energy his boat will face outside of recommending that it not be used in certain conditions.

It's also important to note that even in calm conditions on a flat lake with no swells or wave action to speak of, any hull moving fast enough to create a wake will experience some degree of all three motions regardless of what is used to drive it...surge, sway and heave are the motions in the "dance" of a kite in any breeze strong enough to lift it, and the nature of pushing things through fluids like air and water and creating waves by default induces cyclical patterns.

Of the three, heave is probably the most critical from a safety and design standpoint as it relates directly to real world swamping scenarios in displacement hulls...reserve hull volume/buoyancy and freeboard are about all you have to add a safety margin against the negative effects of heaving but both come at a cost and can't be tacked on easily after the fact.

But it's not all negative... the upside of heaving- quite literally the up side of the cycle- puts negative G forces on a hull and effectively "un-weights" it. In large seas and swells it isn't uncommon at all for boat crews to experience the same kind of stomach churning feeling you get on an aircraft that has a sudden loss of altitude, and fast, light displacement boats can experience negative G's and even become airborne if all the various factors line up.

That's a lot of potential energy that mostly goes unused and is treated as detrimental in all but a few ultra light boats designed to surf and/or plane regularly...but those three factors of surge and sway and heave and understanding and exploiting them to their fullest is the technical essence of surfing and the only source of the motive force used after takeoff.

Obviously a daysailer on a lake isn't going to have the same potential wave energy to harness as a guy dropping into a 20' wave, but he is still moving in a cyclical manner in all three realms; surge is a fast-slow cycle, sway is a side to side cycle (imagine the motion of a "sidewinder" snake) and heaving is an up/down cycle, even if it's only millimeters.

The point is that being cyclical it's all fairly predictable for any given sea state or speed...you can predict when a boat's bow wave might swamp it based on its freeboard and speed, what might be a gentle porpoising motion at 5 knots will become a wild slamming motion when a hull is overpowered, hulls designed to ride their own bow wave and stay in the power section of that wave cycle (planing) are very predictably less efficient the farther outside of those parameters they move, very predictably have swamping concerns related to heave as their wake overtakes them on off throttle, etc...

IMHO, these considerations are far more important in the big picture than any number or ratio that allegedly dictates what can or can't be done with some design or concept, and people would be best served by considering design parameters in this context...there is no single waterline or beam or static hull displacement for any hull in real world operation, only averages.

But if there are averages and the cycles are somewhat predictable, that means that the smart money can play those averages and win by small incremental steps that add up, whether "winning" here is a better handling boat less prone to unwanted motions, or one optimized to harness surge/sway/heave -related energy that is traditionally thrown away on sailboats.

**Small Tri Guy**

March 14, 2014

The above comments are a nice addition to the above conversation. I've never read an article that really emphasizes the differences between the specific types of motion implied by those different terms. But of course, they are different.

**ian**

March 14, 2014

Like the article says it's hard to separate those motions from the directional ones by observation, and in practice they are all intertwined so how some shift in orientation happens or is prevented really isn't as important as \*that\* it happens- but from a theoretical and design standpoint considering them separately can be very helpful.

Multihulls with properly shaped hulls offer even more possibilities for harnessing wave power via extended surfing and planing than monohulls due to their generally low and potentially ultra low weights and high power to weight ratios and how this all affects things like acceleration and quick steering/trim responses.

The down cycle of the heaving motion is where all of the stored energy of hoisting any boat up to the peak of the wave is released, and where a surfboard generates forward thrust as it falls down the face of the wave.

There's enough thrust generated because of the flat shape and rocker and the weight involved that nearly any hull with this general shape will begin to move forward if you stand in the right spot and jump up and down to artificially create that heaving motion. Surfers do it all the time to get through slow spots.

A planing powerboat does the same thing by essentially piling a whole bunch of water up behind the boat, which will then continually fall down the face of that big pile of water, aka a wave. The action of pumping that water causes the equal and opposite reaction of the water trying to rush back towards the prop and boat, and the right shape can catch the wave just like a surfer with a wave rushing towards him.

What interests me a great deal is the fact that a properly oriented flatter hull shape that runs semi submerged in the wave piercing manner can also generate a great deal of this type of thrust if it is submerged and then let go, assuming that it is very light and buoyant...so that with springy akas and the right amas you might be able to store and turn some of that cyclical up-down heave into forward thrust on both parts of the cycle.

As it stands now the tall, straight sided hulls/amas mentioned do little to harness any of that up/down energy but prevent slapping and twisting by offering little resistance in either direction, but can get absolutely hammered when they take direct hits from the side or fall off a wave and land on their beam ends.

What saves them is that just as a boat's lines are never static in operation, neither is the water surface and it's an OK compromise since the \*exact\* perfect wave/boat orientation and sway energy level to inflict damage is usually rare.

But that goes for flatter hull sections as well and too often the benefits of that kind of thing are dismissed as not worth the cost of "pounding" that in many cases is more theoretical and based on static lines and water states than anything.

In that sense tall skinny amas are just flat, wide amas on their sides and while you often can't stop a wave crashing into you sideways, you usually have some control over speed and other factors that would have you radically bow high and about to slam down dangerously over and over. One of the biggest controlling factors is weight; a dropped feather doesn't slap or slam the ground despite falling flat side down.

**Wade Tarzia**

March 17, 2014

So heave should involve energy losses to the water when a hull is flared — it that condition, the hull becomes a kind of wave-making machine. What would be the effect on the boat besides cyclic increases of skin friction? — Wade

**ian**

March 17, 2014

Hi Wade,

Your assessments are spot on, but I think it's important to keep in mind that the energy being "lost" isn't all propulsive energy that was bought at the cost of fueling a motor or putting up sails- it's energy that in the case of ocean swells is already there, and will heave any vessel up/down regardless of its speed or if it is even moving over the ground.

My point was that in traditional hull designs this energy is treated as a negative and simply sloughing it off and minimizing its effect on other performance parameters is where the priorities usually lie, which in my opinion is often more a matter of traditionalist thinking about hulls developed from monohulls than anything that has been thoroughly tested and found superior for multis .

Specifically to flared hull sections, your post assumes that any water shoved aside by that flare will simply go out to the sides away from the center line, when many planing hulls used various flares and bumps that redirect this wave energy and any air entrapped by it inward where it is vectored aft by the deeper outer sections that keep that energy centered...the Hickman Sea Sled is a good example.

Many cathedral hulls do something similar using multiple tunnels and even simple planing strakes on a traditional vee hull can be undercut so as to form channels that help to redirect some of this energy.

Also keep in mind that the wave making machine in question isn't static but in practice is moving forward as it heaves up/down, which makes the \*relative\* direction of the wave splash from a flared hull go aft anyway, relatively speaking.

Since a bow wave occurs forward of the beam, that still means the energy released as the traditional hull moves downward and shoves water out from underneath isn't adding to your forward momentum and actually works against it as the angles counter the angle of motive force...but a properly set up reverse vee or similar hull can trap and redirect at least some of that energy aft. It may not power you along, but it isn't working against you to the same degree and the net result should be better performance, all else being equal.

The other benefits of this type of hull are a cushioning effect from trapped air (helping to mitigate "slapping" concerns) and reduced wetted surface from same...at least some of the time. Properly designed, this type of hull can come down not on water, but on a bubble of trapped air that then compresses and can only go one way- out the

back. Even if you don't get a true bubble and only trap some soupy froth, as any surfer can tell you a flat board falling down into soupy froth won't slap much at all but rather experiences an increasingly viscous fluid that cushions the fall a great deal-

<http://www.youtube.com/watch?v=YZi1XqiH5IY>

If flat hulls are inherently incapable of operating in anything but flat water due to slapping themselves apart on impact as so many believe, that board would be toast... instead, it easily handles flying over and off of seas that would destroy many traditional boats many times its size.

Obviously there will always be cyclic increases in wetted surface and skin friction as any boat heaves up/down and its effective displacement fluctuates, but that's just the point- displacement is not some fixed number and you have various places along that cycle where you may be able to make small but worthwhile performance gains (the cycle works both ways and creates \*less\* wetted surface when the boat is unweighted) , or one may be able to mitigate negatives of some allegedly unsuitable hull form by thinking outside of the box that says slicing through the water like a knife is always "best".

Then there's the whole issue of tall skinny slab sided hulls being more prone to pitching to begin with, which as Jim Brown points out is often combined with heave and/or caused in part by its effects on that type of hull...so it isn't necessarily fair to approach a more surfboard-like hull as if it even has the same types of issues with pitching and wave making that a hull oriented the other way will.

A flat hull has lots of initial stability that prevents it from pitching when it encounters heave, which is a large part of why surfers don't just get thrown forward in a nose down attitude every time a wave comes up under them, and why a surfboard won't usually just take off by itself...the board wants to stay flat both because of its shape and because of the evenness of the weight distribution...it's the opposite of traditional hull theory that says that keeping as much weight centered with the ends light is "best"...

that's great in ballasted monohulls and safety/seahandling is part of the idea, but the payoff is an increased pitching tendency. When you have other hulls with their own buoyancy and weight profiles and no ballast involved like you do in a trimaran, you have more options and traditional hull design concepts may not be up to the task the same way they weren't up to the task when displacement motorboats with sailboat like hulls reached a performance dead end .

I may not have all the answers but I simply cannot swallow the idea that all trimaran design improvement efforts have come to their ultimate fruition with the advent of slab sided, round-bilged, plumb-bowed displacement canoes for hulls...if for no other reason that the platform itself is so adaptable that there can \*never\* be any one "best" form for it to take.

**ian**

March 17, 2014

This isn't the exact same thing, but a similar use of a non-traditional hull shape to redirect energy that would otherwise be wasted as spray/wake, that also exploits the air cushioning and wetted surface reduction effect of getting air under the boat in restricted channels...in this case they use forward motion to develop suction via a cleverly designed step, and if their figures are accurate they are managing a 30% reduction in fuel/power needs to get the same performance as similar boats of that size/weight/power-

Regal FasTrac hull

<http://vimeo.com/55859934>

Consider that in a boat of that type running very fast, the up/down heave effect can cause a cycle of planing-airborne-planing-airborne even when there is very little chop...when you average out the actual wetted surface figures in operation, they may have almost nothing to do with static design figures.

Some may argue that comparing a boat like this and a sailboat is apples and oranges but at the speeds possible in a fast tri- well above what is required to plane- it may be more like comparing oranges and tangerines.

**ian**

March 17, 2014

FWIW, the hull shape featured in this thread-

<http://forum.woodenboat.com/showthread.php?132527-Admiral-Cipriano-Andrade-s-1901-Scow-Racer>

-is very similar to the type of main hull I have in mind, except that it would have far less rocker overall (especially in the stern) and far less of a "boat" shape when viewed from above, carrying the maximum beam nearly all the way to the transom in as dead straight a run as possible. I would also narrow the side protuberances so they were more of a fin-like "skirt" with a flatter hull section in between.

While Andrade's hull was designed as a displacement vessel, with those design tweaks and extreme lightweight modern materials and amas to keep it all oriented for proper attitude I see no reason why it couldn't plane easily and also enjoy the air cushion/lubrication benefits of the later Sea Sled configuration...built light and with amas, the center of that tunnel could be kept at or even above the waterline, effectively "flying" much of the main hull even at rest.

I've built models of this type of tri arrangement, and when properly balanced they will make forward momentum when dropped from a height; make it light enough and it can outright glide, point a fan at it and it can lift straight off the ground...conversely if you sink this shape and let it go it will shoot straight forward at a shallow angle with great velocity and almost no tendency to "hunt".

**Stefano**

March 17, 2014

For Ian:

hi there! I will be shortly tweaking the hull of my little tri Nepau, featured here already. 38 cm in it's widest point at the bottom, by 480 cm length and say 15 cm rocker...

I was thinking of adding to the presently flat bottom, a forward "V" to add lift (maybe, maybe a flat hull performs better in this respect) until the mid section where the daggerboard is placed, and leave a step there to create that flux of air trapped bubbles that should reduce hull friction thus improving planing capabilities.

What do you think about this approach?

Cheers, Stefano

**ian**

March 18, 2014

Hi Stefano,

I'm glad you are on this thread; I remember you mentioning adding a step to your boat and your comments have come to mind more than once as I research all of this.

Generally speaking it's important to remember that a step or a bulbous bow or winged keels or any other radical departure from a traditional boat shape is never a magic bullet and always brings other compromises- and when improperly applied they more often than not rob overall performance the same way a giant wing on a slow underpowered car will just make it slower, not faster like on an F1 car.

Taking that analogy further, that wing actually does add drag to the F1 car and in some instances is probably making it "slower" for a moment- but it's the overall average that matters, not snapshots in time, and the added speed from faster cornering will give a net increase.

Same for a step on a sailboat that doesn't have steady power like a motor...any stepped hull has increased drag at slow speeds but with all the other factors optimized and in the right wind conditions a stepped sailboat hull should be able to gain enough on the other end to be faster overall than without it, assuming you have reasonably stiff and steady winds at least some of the time.

The mid-teen speeds you report are definitely fast enough to get the right shape on plane, and also to generate the suction needed to bring air in like the FasTrac hull... one thing to keep in mind with the latter is that foamy water is far less dense and so schemes that try to place the hull in a bubble of foamy water will effectively increase displacement and the hull or the part of it in the bubbles will sink lower instead of riding on top of the foam.

The key to minimizing wetted surface or getting a lubricating effect is to trap the air or slow its upward motion using some kind of tunnel or reversed chine or runner to collect the air and direct the flow where it will help you. Retrofitting an existing hull could be tricky, or maybe you only need to add a couple of strips of wood in strategic places...hard to say without testing it, but I think your boat is well suited as a test bed and any boat that can do 12-15 kts is in the range where these ideas begin to make a significant improvement.

I know there's a general tendency for sailors to turn their noses up at anything blending sailboats with powerboat shapes and principles, but the power to weight ratios available to multihulls now are in the powerboat range and so a move away from long/skinny hulls knifing through the water is inevitable- the America's Cup is mostly airborne now and run at freeway speeds, and the canoe hulls are only there for low speed operation.

This may seem far afield from a discussion about sailboats, but it's not- this is a great illustration of the issues of flat bottomed planing hulls at their power limit...scroll to 2:30 and you'll see boats on dead flat water oscillating up/down wildly-

<http://www.youtube.com/watch?v=bKzyLlonf0c>

That's precisely the kind of energy potential I'm talking about, where any hull getting pushed/pulled through water will have a trajectory that graphs as a wave. Air flow has something to do with it too at those speeds, but that isn't "kiting" causing the boats to slap, it's too much power. It's the same thing that flat bottomed Aussie skiffs do when they are over canvassed, even in flat water. Windsurfers can do it too.

In this case heave isn't involved, it's all pitch motion...but you can imagine the combination were there to be any swell, which would no doubt involve some bone crunching dead stops as you went from zero to maximum wetted surface in an instant.

At 3:55 a stepped boat takes off and you see this energy harnessed and put to good use- the boat makes one massive hop out of the hole it has created ( a "hole shot" and then the amplitude of the motion goes way down when it settles on multiple planing surfaces...and the same energy makes it faster than the non-stepped hulls. It runs far flatter, but it's still not a flat trajectory. You wouldn't want to take that boat to sea, but you can tell that were it to encounter some swell it would tend to skip across the tops, which is pretty much what it's doing on flat water- skipping over the tops of multiple waves, or perhaps more accurately sort of frozen in mid skip with most of the hull supported like it's on sawhorses made of water.

In many ways a trimaran already benefits from this principle even off plane, or can...you have multiple buoyancy and gravity centers to work with that depending on their relative positions and sizes can exacerbate or dampen certain motions and trim orientations in a seaway, or with power application, or both. And like the stepped longtail boats, those principles can be used to not just even out that trajectory, the energy that would otherwise be wasted can be made to propel the boat faster or at the same speed with less power.

But it probably won't happen using the monohull with training wheels approach or if you stick to traditional displacement monohull notions about weight distribution and trim or just treat it as a given that the CG-CB's of the three hulls should all line up on the transverse axis with everything pivoting around them as the boat does the up/down thing.

And it probably won't be pretty in any traditional sailboat sense.

**Stefano**

March 22, 2014

Hello to everybody... but this again is for Ian.

One consideration off-topic is that currently produced air fighter planes have a reputation to be poorer performers than previous generation ones. Reading your comments this came up to my mind: they are probably the breed of the Twitter generation: short, fast reaction to everything, no thought of any depth allowed.

Your comments are extensive and well documented and it takes time to digest the matter in them. One paragraph especially took my attention: "...one thing to keep in mind with the latter is that foamy water is far less dense and so schemes that try to place the hull in a bubble of foamy water will effectively increase displacement and the hull or the part of it in the bubbles will sink lower instead of riding on top of the foam"

This statement makes my alarm bells ring loud, since raising the amas and cutting 2 ft off the main hull (latest modification) caused a dramatic increase in waterline depth in the main hull and greatly reduced performance ( I was trying to avoid drag by lifting the amas, but did not realize they contributed quite a bit in keeping the vaka less immersed). The couple inches of increased waterline depth, and the submerged stern resulting from it, have pretty much ruined the performance of the hull, so I have to add length and waterline width again. At that point I will still be given the option of adding a step, but I definitely do not want to sit the tri deeper in the water by other terms, as this proved so detrimental to performance.

I will add instead a small negative angle aft at the transom, called and "intruder" I was told. perhaps a quarter inch deep slope downwards. I have been informed this should clean the hull drag and produce the result of a virtually added length to the hull without the downside of inducing more drag.

Open for discussion :-)

Cheers , Stefano

**ian**

March 22, 2014

a step will usually induce more of a stern down attitude as it speeds up regardless of why it's there, so you have to factor that into everything else.

At low to moderate speeds a step can definitely make you slower, especially if you settle in that range just on the edge of planing when you are making a maximum displacement hull wave but can't quite get the transom up and over the hump to ride it...a step in that mode is like another transom doing the same thing on another wave.

Clearly you can develop suction to bring air down but just like trying to breathe through a long tube underwater, the energy required goes up exponentially as you try to take the air deeper...so for a sail powered boat trying to benefit from this principle you almost need it to be a very flat, shallow hull shape unless you mechanically deliver the air below the hull like they do on ships using air lubrication.

This will probably be of interest to you-

[http://name.engin.umich.edu/facilities/mhl/capabilities/tests/departments\\_name\\_facilities-1\\_marine-hydrodynamics-laboratory\\_capabilities\\_copy\\_of\\_specialty-tests\\_air-layer-drag-reduction-partial-cavity-drag-reduction/](http://name.engin.umich.edu/facilities/mhl/capabilities/tests/departments_name_facilities-1_marine-hydrodynamics-laboratory_capabilities_copy_of_specialty-tests_air-layer-drag-reduction-partial-cavity-drag-reduction/)

the last two illustrations show the aft wall of the cavity formed by a step sloping down to where the hull buoyancy gets back to supporting everything; but when you consider a tri that section making contact and compensating for a raised hull could be one or both amas, perhaps moved farther aft to adjust overall buoyancy and compensate for the loss of main hull volume and the tendency for stepped hulls to squat quickly when power is applied.

In my mind, a boat of this type would want a step farther forward than something on a vee hulled powerboat, more like an airplane float-

<http://i01.i.aliimg.com/wsphoto/v0/305964753/-font-b-RC-b-font-Model-font-b-RC-b-font-Plane-Seaplan-font-b.jpg>

properly oriented with amas a hull shape like that could be mostly in the air with very little forward motion or even at rest, but could still have reserve buoyancy in the stern. But unless a hull is very shallow to begin with it's more like a shaving off of the area behind the step than adding anything to get that shape, which makes it harder to do to an existing hull.

**ian**

March 22, 2014

Hi again,

Here's some more references for anyone interested in the subject of planing sailboats, stepped hulls, etc.

the airplane float style ama-

[http://www.boatdesign.net/forums/attachments/multihulls/40697d1266106326-planing-catamaran-298\\_ev28\\_140206parlier.jpg](http://www.boatdesign.net/forums/attachments/multihulls/40697d1266106326-planing-catamaran-298_ev28_140206parlier.jpg)

<http://www.boatdesign.net/forums/attachments/multihulls/40698d1266106326-planing-catamaran-parlier-test-boat.jpg>

to some degree a tri with cut away section aft that creates a step in the main hull will be a sort of hybrid : trimaran in the bow, catamaran in the rear, or you could also think of it like a cat with a larger hull in the middle that acts as a damper on wave and sail induced motions and orientations that can hurt a cat-

cat wants to dig the noses, stick that middle damper hull out front to lever the ama noses up before a wave hits them (or vice versa)

cat responds slowly to following seas, move the damper hull aft to support the boat before the wave hits the ama

-at this point you are working with a fairly typical trimaran aka/ama length ratio...but when you consider the dynamic of any boat about to get swamped from behind or dive into a head sea or into a trough, it's in the lowest point of the up down cycle, and if you were to design something to put in the middle just to recover and not get swamped or plow under, putting all available buoyancy in something shaped like a Q-Tip would be ideal, with bulbs out past the bow and transom.

That's not a practical real world shape, but the principle still holds that making the ends hold more of the total buoyancy is the way to go if you want the main hull as trim damper approach to work...most modern multis do this already with very straight runs when viewed from the side, but when viewed from above they still favor tapered ends that shed buoyancy quickly.

Those shapes make perfect sense for displacement boats that might surge to 1 1/2 times their hull speed if they are fast, but anything that regularly exceeds hull speeds can probably benefit from the beam being carried further from center... the faster you go the quicker you need the ends to respond to oncoming waves, and a hull with lots of rocker and fine ends can't keep up.

This applies to getting out of it's own bow wave trough without digging in or swamping first...this boat is at the limit of what it can do, and is caught in that almost planing zone-

[http://www.sailingbreezes.com/sailing\\_breezes\\_current/nbss/images/Windrider-Burns-planing.jpg](http://www.sailingbreezes.com/sailing_breezes_current/nbss/images/Windrider-Burns-planing.jpg)

-they appear to be getting some of that energy from a slight swell, but the point is that the boat can only use it to sink itself, where a boat with a wider flatter stern would be able to harness it and surf/plane.

Moving crew weight wouldn't help much, because you'd just move the problem forward and with perfect fore/aft trim the boat would eventually just sail under its own bow wave/wake completely. The ama in that pic is almost there and the little bit of bow that's still above water is maybe a 5 gallon bucket's worth of displacement or righting moment...40-50 lbs?

But the flip side of a hull sinking down like that is the massive amount of energy that is being stored up, because again you are shoving an air bubble (the ama) underwater which takes a lot of power...the traditional naval architect approach sees lots of wetted surface and tripping and that's all important, but traditional monohull sailboat design never really considered using that kind of stored energy to then help shoot a properly shaped hull forward between bow wave and gravity forces like a pinched watermelon seed until Uffa Fox came along with hulls that carried their beam almost to the transom, like a watermelon seed.

This is a really nice article on that subject from 1958-

<http://sportsillustrated.cnn.com/vault/article/magazine/MAG1002162/index.htm>

"...Fox took the basic design, refined it, sharpened the bow and flattened the lines aft. He named the result Avenger. It was an apt name. Avenger was nothing less than a new and somewhat fearsome concept in sailing.

The big-boats-beat-small-boats rule was based on the fact that every boat underway creates a bow wave and a stern wave. As a law of physics, it is impossible for such a two-wave system to travel much faster than 1.6 times the square root of the distance between the two crests (which is the same distance as the boat's waterline length). So every conventional sailboat was caught in a trap of its own making as far as top speed was concerned. Any attempt to pile on canvas and increase the speed beyond the natural maximum resulted in bigger and higher bow and stern waves whose drag nullified the added power.

The Avenger, on the other hand, was so light and fast that she jumped right up on her own bow wave until it was underneath her mast, then planed along on her bottom like a surfboard. The stern wave was practically eliminated and along with it the limitation on speed. Fox was delighted to find that Avenger kept right on gaining with a freshening wind as long as her crew could keep the boat on its feet."

That last part is important and might explain why so many people think "tris can't plane"...the traditional approach of a slight built in heel (dihedral) to kick the windward ama up and reduce wetted surface is another concept that works against planing...a multihull designed to plane is already at a disadvantage with traditional beam/length ratios, and removing more transom area can't help.

A stepped main hull like the cat amas in the pics above **\*\*sailed flat\*\*** puts that planing area forward where it can be as wide as possible while still allowing decent flow when off plane, without a fat transom to drag in the water.

When on plane it would have more of a tricycle footprint and a far more Q-Tip like volume distribution in the bow, and with the reduced volume aft it could quickly squat in a nose high attitude as oncoming waves engaged with that bow volume and levered the boat back on the transverse axis. This would in turn sink the catamaran-like after sections as they compensated, and as the wave passed that stored energy would act to pop the amas and the connected boat up and forward over the backside of the wave.

In a boat with enough speed, you could also place the rear ends of the amas in this optimal surfing/planing position on the boat's own wake so that this energy is perpetually acting to drive the amas forward...I'm pretty sure that the Ady Gil was designed with this in mind.

Harnessing that wake or heave energy to good use is IMHO all about de-coupling the buoyancy centers of the hulls and distributing weight more aft, so that the boat is inclined to cantilever out from the face or backside of the wave cycle...so with enough speed it is always falling, with the hull(s) directing that gravitational energy into thrust-

<http://www.youtube.com/watch?v=p8qnQImFsas>

At about 16 seconds in they catch a big wave and the guy scrambles aft to hold the stern down in takeoff position, the whole boat's CG moves to about the end of the tiller; then it squirts forward.

Shaving off a bunch of volume in that hull aft of a step would do the same thing by not floating the stern up in the first place and cantilevering the main hull weight out forward- keep in mind the angle of attack is then the pitch backwards \*combined\* with the wave angle, so the amas will go deeper than might appear at first glance. As the amas engage their aft volume and store/release that energy the boat could naturally be positioned and encouraged to jump forward without wild crew gyrations at the ends of wires.



This is a really good jumping off point for exploring this concept for both water and air vehicles...essentially a gravity/bouyancy drive system-

<http://www.aquaglider.us/history/>

Already used to propel drones-

<http://swampland.time.com/2013/12/22/navy-underwater-drone/>

Trimarans already have stubby wings that alternately go up/down in the water and often run almost completely submerged...shape them more like wings instead of cigars/canoes or blend the shapes to exploit this principle and you're off to the races.

**ian**

March 22, 2014

Stefano-

Is the "intruder" you speak of something like this?

<http://www.boatdesign.net/forums/attachments/boat-design/26816d1226409285-midship-interceptor-interceptor-presentation-eng.pdf>

Also here is another neat stepped planing catamaran hull designed to break up static areas in the fluid flow that create low pressure drag, by introducing air-

[http://f16hpclass.geo.do/F16HP\\_boat\\_show\\_ventilo\\_zipo.html](http://f16hpclass.geo.do/F16HP_boat_show_ventilo_zipo.html)

**Stefano**

March 25, 2014

Hello to Ian. I read the whole very interesting article which may even result in a professional hint while dealing with small fishing boats. The answer is yes: the intruder in its crude version is just a vertical plate set at the trailing edge. The thing that come closer to this is the flat aluminum bar screwed at the rear of a v shaped trim structure fixed on the ob Motor shaft, just as seen in page 4 of the article you mentioned. The only difference is that this flat metal bar is screwed in a fixed position. I have been told from a very proficient boat designer that calculations are yet not feasible so he placed this flat metal bar on two slotted guides and making experimental tests by sliding it up and down by a few millimeters, he discovers what is the best protrusion for any given flat transom boat. A very basic , simple but efficient approach to reducing aft drag.

**ian**

March 26, 2014

Hi again,

This idea makes sense, as does the ability to adjust the depth...which could even be made into an active system that would only deploy when the boat would benefit. It's easy to assume that the lack of such systems on most sailboats means that they don't work, but a lot of fast boat design trends are about rules and how to beat them, and many racing rules prohibit these kinds of active trim controls or foils that are not rudders or center/daggerboards, so they don't ever get tried.

But this is very similar to what the Porsche Carrera has done for a long time with various spoilers and tails- they aren't just there to create downforce (which creates drag), they keep the fluid flow from getting trapped in a low pressure vortex behind the car and the flow thinks that it's longer and more tapered than it is, which lessens drag-

<http://www.gtspirit.com/wp-content/uploads/2012/05/Official-TechArt-Rear-Spoiler-Options-for-2012-Porsche-911-991.jpg>

The chopped off Kamm tail does this too, and this is part of why a chopped off transom makes sense on a planing hull....you are tricking the fluid into "seeing" a more efficient shape and potentially faster shape, and when you look at photos of planing vee hulled powerboat wakes from above the effect is clear; you see that there is a depression in the water aft of the transom where the flow follows a boat shaped line and meets well aft of the hull, with the flow off the bottom doing the same, like the airflow around the car in the link above-

[http://www.allposters.com/-sp/Aerial-View-of-Speed-Boat-with-Large-Wake-Travelling-on-Port-Phillip-Bay-Melbourne-Australia-Posters\\_i3642277\\_htm](http://www.allposters.com/-sp/Aerial-View-of-Speed-Boat-with-Large-Wake-Travelling-on-Port-Phillip-Bay-Melbourne-Australia-Posters_i3642277_htm)

It's the "hole" made by a much larger displacement boat, and it sits precisely ahead of a central ridge of water that is forced upwards and out like a plow through dirt, or like the bow wave of the imaginary boat that is defined by the hole...which is what it is, and the boat and its illusion of a tapered stern perpetually surfs in front of it as long as there's power to make the hole.

Perhaps that analogy has some holes, or more likely only applies within some range of ever changing parameters, but if it elicits some opposition I won't feel bad- this article is from last year and even the experts can't agree on this stuff and dismiss theories that fit the data without much of a good reason-

<http://news.sciencemag.org/2013/05/lord-kelvin-wipes-out-speed-boat-wakes>

Anyway, your idea is one way of achieving this result, and the moveable feature reminds me of what Porsche eventually did with retractable spoilers on the 911 Carerras.

The other thing to keep in mind is that many of these kinds of tabs and fins and such have multiple uses and effects of fluid flow, and in the case of things that create vortices and pressure differentials they are often used to create directly opposite effects in different applications...the simplest example being a wing that can lift a vehicle or push it harder onto the ground.

I think too often people focus on a single effect and don't consider what can be done with fine tuning, when the operation of the wing is decided mostly by a minor change of attack angle, and even when designed for one direction only enough attack angle change and speed will make any wing do the opposite of what it was designed to do.

The intruder/ interceptor you describe is one that can either optimize speed via variable hull geometry, or act as a brake...I think most sailors just see "brake", but at the speeds you are getting now only a bad design will result in a loss of performance.

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

a couple of more neat links to ideas in this vein...

<http://www.google.com/patents/US4825795>

<http://www.google.com/patents/US5058837>

# Small Trimarans at the Everglades Challenge 2014

March 22, 2014

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Everglades Challenge 2014. Randy Smyth, sailbird trimaran

## Comments

**LM**

March 22, 2014

I'm not sure Randy beat the time of Jamie Livingston of a few years back. I do understand that he had a new personal best. LM

**Mike Barnett**

March 24, 2014

Joe – thanks for the kind words... it was indeed a great adventure, with almost perfect weather. The Everglades Challenge is also quite addictive: you can bet Clarity and I will be back again next year!

Mike

# Kite Sailing on Sticks

March 26, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: kite sail, kite sailing, kite surfing

## Comments

**ian**

March 27, 2014

A lot of people might see this and kites in general as extremely impractical outsider weirdness, but a spinnaker isn't called a kite for nothing.

It's also worth noting that a square sail on yard is a kite on a stick, as is a windsock...sails and kites can share many design elements and use the same principles, but the key difference is that even when tethered on a frame or spars, a kite can "hunt" to some degree in all directions, or will try to in response to wind shifts, surge/heave, etc.

Contrast that with a marconi sloop- main and jib can wind vane on the vertical axis, the foot and clew of both sails can pivot independently on the transverse \*but\* the luffs are fixed to mast and boat motions and so these sails can't really be thought of as kites.

An asymmetrical spinnaker or similar unstayed headsail is another story though, since its luff is also able to deform in response to wind and inertia from boat motion...it still gets input from the hull motion but can also move independently in all directions within the constraints of its control points, even when sheeted hard.

There's a few traditional rigs that except for a single attachment point might be better thought of as kites- junk and lug sails are crude parafoil kites that are little more than a square sail with two spars...it's when you fix the bottom spar to a mast and permanently fix the luff to boat motion that it stops being a kite.

Lateen and crab claw type sails that use a lower spar are either crude delta kites (if the spars connect at the tack) or asymmetrical parafoils that don't act as kites any more after you fix that lower spar to boat motion...which I think is key to exploiting these shapes with modern materials and techniques while mitigating the well documented problem of excessive weather helm.

An even more basic and versatile kite on a stick than a square sail are the loose footed lateen sails often seen on dhows and feluccas, that are like a jib whose luff has been freed up to pivot across the boat...when viewed from the front in off the wind trim, the yard and luff can pivot across the boat unlike a traditional boom /upright mast combination or a crab claw with the tack fixed at the CL, that can't adapt this way with the sail eased out and can become unbalanced as a result.

compare the sail area distribution of these-

[http://www.visualphotos.com/image/1x7808579/africa\\_egypt\\_aswan\\_feluccas\\_sailing\\_on\\_the\\_nile](http://www.visualphotos.com/image/1x7808579/africa_egypt_aswan_feluccas_sailing_on_the_nile)

<http://www.fredhoogervorst.com/photo/02184d?PHPSESSID=d4ee088849db26b5a204c1cdfd722570>

with this-

[http://www.lashworldtour.com/wp-content/uploads/2010/09/IMG\\_1087+5B5D1.JPG](http://www.lashworldtour.com/wp-content/uploads/2010/09/IMG_1087+5B5D1.JPG)

I've never understood why that arrangement seems to dominate the Polynesian lateens when it can make a boat cranky and hard to steer off the wind, but my guess is that they had a good (or at least rational by their standards) reason for favoring that approach and obviously the other sails aren't perfect and are used for other things...

point is that the kite rig in the last two still photos here-

<http://smalltrimarans.com/blog/?p=10064>

- is essentially the same shape as the junk rig but like the felucca sail can be trimmed to adjust the CE more inboard when reaching or running and places sail area to windward of the mast that can help balance thrust and minimize steering overloads...in the photo at speed the sail area is almost perfectly distributed on both sides of the boat, centered over the optimum thrust line and presumably isn't struggling with massive weather helm.

**Small Tri Guy**

March 27, 2014

Great stuff Ian! Wow, what great links ... especially that sail in Tanzania.

**ian**

March 27, 2014

Hi Joe,

That Tanzanian sail really does show both the advantages and drawbacks of that kind of triangular sail arrangement that can be had with the loose footed lateen...no doubt that boat would be unmanageable off the wind in any kind of a breeze were they to keep the tack of that monster sail pinned to the bow.

But all that weight aloft controlled by one string could present some real problems and probably kept those rigs from becoming widespread for ocean passages in larger boats...caravels made good use of lateens for coastal work and were superior to almost anything else to weather in their day, but I've never seen any evidence that they ran them fully athwartships like that Tanzanian dhow when sailing off the wind.

Here's another variation that uses a similar scheme to the double sticks on the buggy and monohull above-

<http://www.boatdesign.net/forums/attachments/sailboats/11817d1172760576-lateen-sails-crab-claw.jpg>

-that setup looks like it could have some geometry issues on certain points of sail (like dead downwind or gybing) but it does manage to get the center of sail effort further inboard while keeping that delta kite shape acting like a kite.

The drawbacks that remain regardless of what you use to support a kite are common to many kites, including spinnakers- you have to actively fly them to get best performance and their self tending abilities when powered up can be poor even when supported on sticks...a lot of people want no part of spinnakers for that reason alone, and I don't really blame them.

Adding a frame like the HSS sail makes sense and I think gives maximum control, but just like with designing and building any kite a tiny miscalculation in locating control points or an imbalance in trim input or weight distribution can render a design a success or a total flop...

moving a mainsheet block a few inches one way or another along a traditional boom will have repercussions, but won't likely cause the entire rig to not function- even moving an entire mast an inch or two likely wouldn't do that...but moving a bridle attachment on a kite just a small bit can make it inherently unstable or cause power sucking orientation changes that you can't trim back out, so it's not so easy to just toss a kite rig together and get worthwhile results.

### Small Tri Guy

March 27, 2014

Ian,

Any thoughts on the "Wharram Wing Sail"? - <http://wharram.com/site/how-we-design/wharramwingsail>

I am specifically asking what you might think about it in relation to potential use on small tris.

ian

March 28, 2014

Hi Joe,

I have no direct experience with that design, but enough experience with sleeved sails and sailing gaff rigged boats that I'm fairly certain that it should work just fine performance wise up to the limitations of a soft sail created by apparent wind.

Gaff rigs may not be sexy but they work, and they have never really benefited much from experiments with modern materials past maybe mid 20th century- and the high tech stuff then was mostly in big racers but used things like steel spars that didn't scale down well.

So it's easy to assume out of hand that a gaff rig or some variation might be slow or have poor windward performance, but many modern fully battened sails carry the roach so high that they are for all practical purposes an identical shape, and they can go super fast on all points of sail and many are sleeved/rotating as well. The shape was never the problem as much as the weight and inertia of heavy wooden spars and heavy sailcloth and all that.

I think in many cases a more traditional gaff rig using ultra lightweight spars and hardware and sail cutting and materials optimized to prevent stall at speed could probably offer some pretty exciting performance even to weather.

Keeping the power down low is a big benefit on anything with light ballast, so that's a big plus for multi and cruising use, as is the loose foot that isn't as hard to de-power quickly as a boom that is hauled in tight with vang and all that.

The downside of gaffs no matter their weight is that they can and will hook on things at the worst possible moment, or things will hook on them- you can simplify halyards and such but you still need to hold both ends up so there's exposed lines aloft that can whip around the end of the gaff if something goes slack, blocks to jam, or you can get it in the wrong spot when reefing/raising/lowering and hook it on a slack shroud or running backstay...remember that the gaff is always riding on the downwind side with the slack standing rigging...on a tri with shrouds set wide this could require some thinking to minimize potential hangups, which on rounding up may become highly tensioned as the slack leeward stuff tightens back up .

If you do a single gaff halyard you have even less control if something hangs up or is about to, where separate throat and peak halyards let you move the ends one at a time and control the gaff angle better to avoid obstacles or ease off if you hook another part with the gaff- but they cost you in weight and more complexity so with the extra blocks you still might jam something...no matter how careful you are, you \*will\* have to go aloft and unstick something related to the gaff at some point, or make some other plan.

The drawing shows a single halyard with a vang to hold the gaff out of harms way as it goes up, that is exactly the kind of thing that can whip around something else if it is allowed to go slack, which is recommended in the drawing...even with the single halyard there's still two lines to deal with here and so singlehanded sail raising could be a one armed paperhanger affair.

Even with all lines kept in check and careful attention when setting the sails a gaff rig downwind can get very unruly if you don't reef soon enough and so you need to be aware; my gut tells me that the claims about raising and lowering the sail easily in following winds are perhaps a bit enthusiastic, at least in conditions where it might matter on another rig.

You can still head up but if things have been getting faster and faster on a run as the wind picks up that turn can get pretty sporty as the sail goes through a reach. A light gaff and no boom helps, so the lag time to de-power that a traditional heavy gaff has when letting off the sheet might not be a problem here ...but a gaff will always have some lag, as it always follows the boom or foot when the sheet is trimmed.

Put another way, when you dump the sheet the sail has to move first and then the gaff follows- but during that time inertia is holding it and it is still generating power like another boom, and way up in the air too. Add in the extra time to round up from a run and you can see how things could go wrong if you reef late. That said the higher than usual aspect ratio and lack of a boom should prevent a lot of this, and you just have to stay aware and you'll be fine.

It seems well suited to cruising where you aren't setting and dousing the sail all the time, but in that application the sleeve could present a problem if the sail were to need repair or jury rigging after some part of the sock failed. It also could be a problem or might get damaged when you need to go aloft...on old gaff boats with no ratlines you

just use the wooden sail hoops as a ladder to climb up there, but the sleeve seems like it might need a lot of care and kid glove handling to get down without damage if a gaff halyard block jammed or something...unlike a marconi main you can't safely just whack the gaff halyard if it jams at the masthead and won't let the main down.

If I was going to cruise this sail offshore I'd probably want reefing style grommets at the luff to lash it to the mast if the sleeve was to fail...same way I'd want a normal headstay and hanked-on jibs independent of a roller furler, just in case.

What I have no guess about is how much pure performance gain would you get with the sleeve over a gaff rig with a more traditional luff attachment method, and would it prevent luffing long enough to make the other issues worth the cost and buy you more net speed before you hit the apparent wind wall...its another case for using it on slower cruising oriented boats that aren't making lots of wind, but slow is relative in a tri and the right boat can hit the limits of even the best soft sails pretty quickly when making wind to weather, especially loose footed ones.

**Small Tri Guy**

March 28, 2014

Thanks for sharing your thoughts about the Wharram Wing Sail lan. One thing I really like about it is the shortened mast. I wonder how many others are attracted to options other than pushing a big, long, heavy stick into the air (for a Marconi rig) every time they want to go sailing on their trailerable boat? :-)

**Skeezix**

February 22, 2022

To dig into this old post a bit more, I am attracted to Wharram's wingsail because a) they sell separate wingsail plans to apply to some of their cats, which might be adapted to a tri, and b) apparently the sails are flat-cut, so a plan might be altered more easily than a sail cut with a belly.

I have found some inquiries into using these on tris, but few if any in use.

**Skeezix**

February 22, 2022

PS I also have some spars, none of which are quite long enough for a Marconi on my intended design, but which might be used as a gaff rig. And as a plan forward-facing seats with foot steering, I might keep the foot lower without a boom swinging back and forth that is more difficult to duck.

# Knowing Your Multihull with John Marples Published as a Kindle eBook

March 26, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: John Marples, Knowing Your Multihull

No Comments

# Jim Brown's Case for the Cruising Trimaran Published as a Kindle eBook

March 26, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Case for the Cruising Trimaran, Jim Brown, multihulls, trimaran, trimarans

No Comments



# Jim Brown on Boatbuilding for Longevity

March 26, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: boat building, boatbuilding, Jim Brown, wood epoxy

## Comments

**Stefano**

March 29, 2014

What a bounty of true experience packed in a few pages !! I Cannot stress more than already done the importance of ventilating all boats, never mind if wooden, fiberglass or whatever, to prevent rot.

My experience with restoring a Farrier trailertri 720 built quite solidly, but with a very poor plywood (cheap lauan) is the following:

1) use GOOD materials. Okume is already very prone to rot... some fir plywoods although heavier resist rot much better

2) Epoxy incapsulation may not be a solution, it in fact may generate problems, especially if a very thin layer of glass is applied to "protect" the hulls and deck. That is when the "dings" or even scratches let water seep in, and before you know ( in the Mediterranean climate at least) it has spread under heat and pressure for a long distance in plywood and restoration can become very painful. I very much prefer for longevity to use thicker plywood ( example: 8 mm instead of 6 + fiberglass set in epoxy) painted with more elastic PU primers and coatings. It is stiffer, takes much less time, you spare much time and money over epoxy and horrible sanding procedures and – most important – the dings are much less prone to carrying humidity over a long distance, if they occur.

Epoxy incapsulation is – in my eyes – nothing more than the renovation of the myth of Achilles, but with hundreds of potential heels.

I am in favour of epoxy coating (no fiberglass) boats that do not stay much time in the water such as kayaks. The coating (I apply hot air before epoxy to improve absorption in wood surface) provides a much more scratch/ding resistant surface with little increase in time and price.

IN order to improve much over this result, you need to step up to at least 300 grams/ square metre of glass fibre set in epoxy (forget 4 and 6 ounces cloth that can be scratched quite easily), which means about 1.5 pounds per square metre more weight on your craft, means lots of money flowing into epoxy, means potential allergic rashes, means working with a vapour mask for quite some time, means a huge increase on filling and sanding and consequent exposure to health risks for air borne epoxy and fibreglass dust... Not worth it – my view – on a small boat meant to stay light and home built.

**ian**

March 30, 2014

Stefano's second point is a very important one...carpenters, roofers and others who work with weatherizing buildings use the term "bird's mouths" to refer to up-facing pockets that can collect and hold water, because they are like baby birds demanding to be fed- always ready to take in even the tiniest bit of what drops towards them.

The deck dings described are the same, and in glass on ply having the underside sealed completely does nothing to help...the water from a pinhole leak may not ever migrate out that way so leaving it bare or just painted won't necessarily be a cure, but any possibility of any drying that way is gone once you coat the ply out and any water \*trying\* to migrate out will be using capillary action to head for the joints, and as Stefano notes that capillary action goes in two directions with plywood.

One advantage of just painting a deck underside on a boat big enough to get under it and look is that if you did have a long term undetected leak from above there's a good chance that the paint film would show some degradation eventually; a stain, peeling, blisters.

This could be a kind of litmus test that would take far longer to occur with an epoxy coating, that if it is thick enough could stand unsupported after everything behind it has rotted away.

Thicker ply on decks helps immensely just by minimizing flexing that will eventually break up a stiff FRP matrix...boats from the 50's-70's that used polyester resin and glass have mostly failed because the brittle resin (that keeps getting more so over time) would crack/craze on a microscopic level where things flexed and got repeated stress and the resulting areas became like a sponge or rag that not only sucked water in but held it right at the spots where it was most likely to do damage like cabin/deck joints, hull/deck joints, cockpit and hatch coamings, stanchion bases, etc.

Epoxy is far better in this regard but not perfect...and depending on how it is mixed and heated can have similar issues with brittleness at corners and stress points. In the context of fresh water leaking into a ding over plywood- and no amount of rubber-like quality will bounce everything off, so they \*will\* occur- a more brittle resin might let you know of the issue sooner by breaking down visibly, and might save you more repair work.

The old school method for non-caulked decks used heavy cotton or linen canvas and an elastomeric paint that let everything move underneath without disturbing that rubberized layer...it offered no structural support to the boat itself but was far more forgiving with a dropped winch handle or anchor than a thin glass laminate and with proper care could last for a couple of decades or more even on pre-plywood boats with actual planks and hundreds of feet of butted seams underneath.

Lagging might not offer the needed strength on a very small plywood boat designed to be wrapped with glass for structural purposes, but I think a similar idea for decks could work in combination with a glass layer by applying a top layer of synthetic fabric that uses a less brittle fiber than glass, like nylon, and either embed it with the same epoxy or with something like polyurethane paint that has enough UV protection for the fiber being used, or a topcoat that does the same.

This would give you both a flexible water seal and a softer layer with some give to help deter dings.

If you didn't need the glass at all then of course you could just use the fabric and urethane or some other film-type coating that stays pliable...many of the old lagging compounds used to do the old time deck method are gone (they used this method on asbestos pipes too) but even consumer grade house paints are superior in many

ways to the best of the old stuff now when it comes to flexible coatings so there are definitely many options available if you wanted something between paint only and a layer or more of FRP, or wanted to do it with less than marine grade material\$...

this is one product well suited for this kind of treatment and roof coatings in general are a good jumping off point for seeking out substitutes-

<http://henry.com/roofing/coolroofcoatings/whiteroofcoatings/287solarflex>

**ian**

March 30, 2014

I've never used this and it's no doubt pricier than the consumer grade stuff above, but it looks very promising and shows the kinds of qualities and performance standards that these new roofing systems offer-

<http://www.weatherbarrier.com/wb/wb.nsf/products/1650-Elastomeric-Roof-Finish>

- the flexing and point stresses that a building roof experiences may not be as extreme as what a boat might see, but these coating systems out-perform the minimum requirements for their intended purpose many times over and are tested to extremes that even working boats don't usually experience.

Also FWIW I wanted to share my experience with what was the first Cross tri built with epoxy over ply, according to Norm...

the boat was built in 1965 with just the outside of the boat covered with minimal glass cloth reinforcement and no saturation inside that I could detect...just painted surfaces in the living areas below and bare ply in the amas and wing areas. The boat had good natural ventilation and I would keep the ama hatches open slightly when the boat was moored, and aside from a slight musty smell after being closed up I never had any evidence of interior rot or mildew buildup or other fungus related issues in those bare areas of the amas and wing area.

The boat had been sitting in the water for years and was pretty dinged up when I got it (in the mid 80's) but the only actual rot damage I ever found in the main structure was where the hull/deck seams had been glass taped and with no rub rail the glass layer was eventually rubbed through creating that bird's mouth that collected fresh water every single day after dew formed on the decks and ran off in the AM.

The builders must have paid attention to saturating the upper edge of the hull plywood before attaching the deck or maybe they used it to glue the deck on, but for whatever reason the rot was all in the deck plywood and didn't get into the structural members or hull sides, and the biggest area was maybe 1" x 4" with maybe a half dozen bad spots total...nothing, really.

I'm also pretty sure that the ply used was fir, nothing fancy beyond exterior grade glue.

**Stefano**

March 31, 2014

Ian, the report from Norman Cross that you quote stresses my point on materials and my first hand (tragic) experience with restauring cheapo lauan hulls and a little better Okume: these woods are very prone to rot, especially when soil and freshwater get together (mostly inside the boat's bilges and where freshwater collects).

I have found out - just like Mr Cross, that phenolic glued fir exterior grade plywood resists much better ( I suspect actually it is pine, with much more resin in it) . However, it has a tendency to crack even through paint in our warmer weather.

Beached pieces of floatsam fir plywood from packing crates show no signs of deterioration after years of total exposure to water.

A flexible paint helps much but is often porous and tends to trap soil and dirt especially on decks. My choice- again - is priming and painting with PU 2 part paints: flexible and wear-resistant.

**ian**

April 1, 2014

Hi Stefano,

I'd say that there's probably a 50/50 chance of the ply on that 1965 boat being pine rather than fir just based on the time period, the same way there's at least the same odds now of "fir" being hemlock, and of "lauan" being almost anything (except the "mahogany" that it is often purported to be).

Coniferous woods definitely benefit from pitch when it comes to fungus and pest control but that can vary quite a bit by variety...generally speaking more porous woods tend to have more rot issues and the cheaper fast growing tropical woods like the "lauan" used for things like door skins can be incredibly porous and are often riddled with old insect/worm holes that create pockets in the plywood veneers just waiting for water to be sucked in.

That kind of damage aside, porous woods are going to suck in epoxy more readily too so if you are going to saturate everything with penetrating epoxy perhaps those woods have the advantage, at least on that count...they tend to be lighter with parallel grain and fewer knots so it's hard to pass them by when you are trying to build light structures.

For solid parts, fir in my experience gets less attractive as you get into smaller dimensions, because the soft/hard grain structure can check and run along edges that aren't significantly bullnosed and that non-uniform pattern can cause serious structural weakness when the dimensions go below 3/4" or so and/or any bending is involved.

One thing to also remember is that conifers with skinny limbs going all the way up the trunk tend to have more damage from wind breaks, that can be completely hidden inside even the nicest looking vertical grain fir or pine or spruce or redwood or cedar lumber. Pitch pockets are a similar issue.

If you use any of these on anything structural, always be ruthlessly selective and pass on anything that looks even slightly questionable for any reason...if the guy at the lumberyard is happy to see you when you come to pick out fir lumber, you're probably doing it wrong :)

The cracking you mention brings up another point- what plywood species works best on a boat structure will depend a lot on the degree of bending involved, and the Cross 24 is pretty gentle on the material with no "tortured" areas where the veneers are highly stressed.

Fresh water is the real killer and I was scrupulous in washing everything down with salt water after washings or rain, even with a full sheathing of epoxy and glass over the decks, for the very reason you point out- you just never know where water is getting in from some tiny puncture or porous area in the cloth caused by a pressure ding where something was dropped, or flex next to a fitting. If a boat were to be operated in fresh water exclusively, I think perhaps the epoxy and careful attention to holes might be a better option than just paint in the long run, if you didn't want to be painting or mixing up and applying antifungal solutions all the time .

That Cross had very few deck mounted fixtures and external chainplates as well which no doubt helped during the time it was left in the elements with little maintenance...on further thought I do remember one other rot spot, where someone put a bow pulpit on with big sheet metal screws and inadequate bedding compound (silicone bath caulk) and the water got in and sat there for years...until the day I accidentally leaned on the thing while picking up a mooring and took a swim.

# Mini Moxie – An OutRigger 26 Trimaran

April 8, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Dick Newick, Outrigger 26 trimaran, Somersault 26 trimaran

## Comments

### **Klaas Parrel**

April 14, 2014

Hi Carl,

I have my 1989 restored somersault 26 in Holland now , after sailing her for 14 years in the caribbean.

Nice to read some news about another of these sweet boats.

I do race her a lot and although more fragile than f27s we beat them most of the time and keep up with f28s

I use a yamaha 2.5 outboard with some care is sufficient and in flat water gives 6.5 mph

Greetings

K.P.

### **Karl Williams**

May 23, 2014

Klaas,

I remember reading about you and the tri years ago, when you were just retrieving it and taking it to Holland. I am glad you got it restored and back on the water.

I have been in contact with Dave Clayman who is restoring another outrigger in up state new York, Mitch Hayes has one a short distance away on lake Champlain.

Hull one is in Florida, and there is one in Montreal.

I heard there is one in Sweden that was converted to swing keel.

The prototype was in Golden Colorado.

It would be interesting to know where the rest lye.

Best regards, Karl

### **Chris harris**

November 21, 2015

Klass and Carl, Greetings I have Hull # 5, which I sail out of Monroe Harbor in Chicago. I found it up in the 1,000 Islands area of Canada about 2000. It was then all gray and named "Graylag". I have been making small changes over the years. It is now predominantly blue with yellow and white and renamed "Trinity". I am in the process of changing the tiller arrangement to a similar system to the yellow Florida Outrigger 26, as I have had too much play in the original design. Will post some photos and videos in the 2016 season.

### **Steven Adkins**

December 25, 2016

Tri Sailors! Been dreaming of a Newick Tri for many years. My budget is still too small to buy anything large and the 26 has caught my eye. 1 all important question. Will I be able to sleep my 6'8" body?

### **Small Tri Guy**

December 25, 2016

Hi Steven,

Your best option would be to contact the owners of any 26 footer that is for sale and ask them about the measurements for the sleeping bunks.

### **Harvey Schwartz**

April 17, 2021

Anybody know of a Newick Outrigger 26 for sale. I'm seriously looking for a small trimaran. Or, of course, a Val.

### **Wendy Y McIver**

October 18, 2021

To summersault or outrigger 26 owners: I've sailed trimarans here on Georgian Bay for 10 years but now find myself boat-less. My imagination has been re-started studying the beautiful outrigger 26. I would appreciate any one who might be contemplating putting theirs up for sale to contact me- Thank you .

# This Trimaran – WILL IT WON'T IT

April 18, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Self-built trimaran, small trimaran

## Comments

**Steve Bird**

June 26, 2015

Ernie,

I am considering building a small 14 ft tri and am trying to gather as much information as I can.

I like the mast / centerboard arrangement I see on your tri, "WILL IT WONT IT".

Any and all information/measurements you could provide from your tri would be greatly appreciated.

Thank you.

Regards,

Steve Bird

# Wa'apa Sailing Canoe in Trimaran Configuration

April 25, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Gary Dierking, Wa'apa sailing canoe, Wa'apa trimaran

## Comments

**Jason Galvin**

November 10, 2018

Hi John. Very inspiring stuff!!! Love the videos. I am up in Long Island in the midst of building a Wa'apa trimaran from the Dierking book. Thus far I've completed the major components of the 3 hull section. In fact, they are standing upright in my living room right now (thank God for cathedral ceilings). One thing I'm noticing about the book is a lack of detail in describing various components of the boat, specifically the rudder design and how it mounts to the hull. Any tips you could provide about how you constructed yours would be deeply appreciated. Thank you in advance.

Best regards,

Jason

**William Vigil**

December 11, 2018

Hey Jason,

Check out the wonderful book CANOE RIG by Todd Bradshaw. It will inspire you and give you several options for each component. There is even a compendium of patterns for sails, rudders, dagger boards, masts, and the like. I am starting a wa'apa trimaran this January. The other must-have reference in my opinion is Marino's THE SAILMAKER'S APPRENTICE.

Good luck with the build. Let's see some pics!

Cheers,

Bill

**Jason Galvin**

December 20, 2018

Thanks Bill. I just ordered both books. Pics to come.

Best, '

Jason

**Robert T**

August 15, 2020

Hey Jason, did you ever finish the Wa'apa?

**Jason Galvin**

August 16, 2020

Hi Robert. I have made some slow progress but it's still not completed. Still have to construct the rudder, leeboard and mast step. Work on it is obviously very part time. I'll attach some pics soon.

**Robert**

August 17, 2020

Jason, good to hear. I bought the full prints and plans from Gary Dierking for \$95 I think. Supports him, and has all the info you need. I bought the book which was enough for me to know this is the boat I want to build.

**Sébastien ALBIZU**

March 10, 2021

Hi Jason,

I have the same wa'apa as you but with lateen oceanic sail, which is very hard to control actually.

I have seen one of your video "Wa'apa Trimaran Sailing Canoe, Fast, Homebuilt, Island Girl, Yap Island, Micronesia" and I'd like to use the same sail and front sail. Could send me a plan of them or any drawing?

Thanks a lot

# Yamaha Waterspyder Windsurfer Trimaran For Sale

April 25, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Waterspyder windsurfer, Yamaha Waterspyder

## Comments

**Steve**

April 26, 2014

The original Waterspyder concept is an interesting attempt to give more stability to a windsurfer, but I cringe at the possibility of falling off and getting one leg in between the board and an ama. Also the pointy hulls would not be good in a lot of crashes, and windsurfers do crash a fair amount.

The fixed mast modified version with a jib seems workable, but probably some adjustment needs to be made to the overall fore/aft sail balance so it will tack and go upwind a little better. Looks like fun though.

**Steve Farb**

March 5, 2016

I have a pre-production prototype of the Waterspyder that I have hanged onto for 20 years. I'm interested in selling it. It will be posted on Craigslist in Sarasota, Florida soon.

**Dave**

July 27, 2020

Is this still around?

**Suzanne Suwanda**

January 12, 2021

I have one in excellent condition I wish to sell. located near San Francisco

# Canadian Night Sail on an F-boat

April 29, 2014

Categories: Small Tri Info - All

Tags: F-boat, trimaran

No Comments



# Artwork Posters Featuring Dick Newick's CHEERS

April 30, 2014

Categories: Small Tri Info - All

Tags: Dick Newick

No Comments

# Strike 16 Trimaran Sailing in Florida

May 1, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, Strike 16 Trimaran

## Comments

**Wade Tarzia**

May 5, 2014

Hey Carlos! Glad to see you finished it and it works as intended! Looks good. Do you like the way the amas fold?

# Trika Trimaran Building Kit Offered by CLC Boats

May 8, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chesapeake Light Craft, CLC Boats, Dudley Dix, Trika Trimaran

## Comments

**Robert**

May 8, 2014

Klaus also designed a similar boat, TriRaid, with more freeboard, more capacity as an adventure boat, and presumably drier in rough water. I would think the Trika would make a good daysailer in the warm waters of the east coast, but the TriRaid would be better for extended adventures.

**Small Tri Guy**

May 8, 2014

Hi Robert,

Yes, building plans are now available for the TriRaid version (from Klaus) as well. Anyone interested can read more about the TriRaid version of this boat at

<http://smalltrimarans.com/blog/?p=10791>

# Testing Out the Hobie Mirage Drive

May 18, 2014

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: Hobie Adventure Island trimaran, Hobie Mirage Drive, Hobie Oasis

## Comments

**Stefano**

May 19, 2014

I truly wanted to buy one of these units and install it on my small trimaran ( Nepau) for trolling purposes while on my lake or closeby at sea where I need only 1.5 to 3 knots speed over a given course when deep trolling for Dentex spp. something bigger than a big snapper. It looks to me better than an electric trolling motor.

The price steered me off. The unit alone in Italy is about 1000 euros... 1400 USD approx. Then I ran a Google query and found lots of foot propelled units, some of which can be self built, are sufficiently simple and could well be used as comparable propelling systems for small trimaran units.

Propeller based systems have one advantage: you can go in reverse motion while this Hobie unit I gather cannot. Anyone has experience with putting DIY pedal units on small tris ?

**Small Tri Guy**

May 19, 2014

Hi Stefano,

Yes, I neglected to talk about the price in this post. The cost fore each pedal drive in Florida (from the store I rented the boat from) was \$526 USD.

**Stefano**

May 20, 2014

Well ... 526 dollars would be probably worth the buy... but here the price is outrageous!

Maybe we could try a parallel import-export business ;-)

Disclaimer : Hobie folks : it's a joke !!

**Small Tri Guy**

May 20, 2014

You're right Stefano ... the price (in my opinion) is expensive, whether it's \$526 USD or 1000 Euros. They do work, but I am guessing a guy would have to be in really good shape to pedal for much longer than an hour or so at one time. Another thing I neglected to mention in the article is that whatever seat the boat has MUST be comfortable and situated in such a way that it would work in harmony with the pedal drive system. In other words, a wonderfully working pedal drive system would likely be useless without a nice, comfortable, well-adjusted seat, with a high back support area for the user.

**Stefano**

May 20, 2014

Yes... actually the information I found on pedal drives and DIY models with propellers were found in a recumbent bike site. Awkward place and thanks to search engines for being so effective! The amount of useful info out there is bountiful. Just put aside the crap and pick the right and tested bits of info...

PS somebody was quoting some importer of Chinese pedal drive units in Michigan somewhere. Could not spot the resaler to understand what the retail price was.

As for pedaling an hour or so, it is probably much easier than paddling 2 or 3 times that time to cover about the same distance... The pedal unit in a trimaran than can be taken away sounds still very attractive to me .

**ian**

May 21, 2014

I've never done it on a tri, but I have messed around with a lot of bikes including some DIY recumbents that were definitely eye opening as far as performance goes...

but like everything else there's a tradeoff, which in this case is having to *\*really\** consider not just the seat/pedal geometry but the ability of the structure to handle it...if you think about it, you could probably sit in many small open DIY plywood sailboats with your back to the hull and your feet on the dagger/center board trunk, and without a huge strain you could at least damage the trunk if not shear it off completely.

That's the same kind of strain you are dealing with when you go recumbent...it's just not the same gentle, self regulating power application that you get with a standard pedal arrangement on a bike where your weight is doing most of the work once your leg lifts you up off the seat.

Even the factory boats designed for these kinds of drives have had issues with hull deformation, cracking and other problems from all that extra power concentrated in one spot , especially with rotomolded poly hulls.

The Hobie drive is far more efficient at converting physical effort to thrust than a prop will ever be...props just slip too much, and in the sizes applicable to this kind of drive will be very poor at acceleration using direct human power...if you *\*need\** reverse or high maneuverability under pedal power a prop may make sense but in the long run it will take more effort to go the same distance.

When you compare the Mirage to traditional paddles and oars it's fairly easy to see why it works so well-

even double blade paddles only use one blade at a time but don't benefit much from leg muscles, and waste energy by driving the boat in a continuous S-curve

oars are better in both respects, and are far more maneuverable if there's room to swing them...but there is still an "off" portion of the stroke where they do nothing to propel the boat.

the Mirage drive is always making power and in that sense is really more like sculling, just with two blades working in opposite cycles that help counterbalance any off center thrust and tendency to take an S shaped path. What it lacks is that unlike a paddle or oars you can only really go forward easily, and steering via uneven power/drag application or thrust vectoring is (as far as I know) not possible.

The relative positioning and vertical orientation of the blades seems to be more of a concession to getting it in/out of the boat easily and in one piece than anything else... if you take the dual sculling blade idea and look at a tri, putting them together in the center has a lot of drawbacks compared to splitting them up and moving them outboard of the main hull and allowing them to move independently when you want to steer.

It could be something like the Mirage drive split in two or more like two yulohs or similar mechanized paddles whose shafts trailed aft more than the vertical Hobie blades...if they were mounted on the cross arms you could also retract them completely.

Something like this (scroll about halfway down) seems like it could be doubled up fairly easily- I'd use solid linkages but the principle is the same -

<http://uk-hbbr-forum.967333.n3.nabble.com/Evolving-Polly-Wee-td33397551180.html>

another interesting propulsion blade scheme that might benefit a lot from modern design and materials and could be adapted to dual drives on a small tri-

[http://1.bp.blogspot.com/\\_074AjHs8wkU/TMZ5Nmp-jCI/AAAAAAACO0/pblh7uqrdjs/s1600/Mikkelson+Museum+225.JPG](http://1.bp.blogspot.com/_074AjHs8wkU/TMZ5Nmp-jCI/AAAAAAACO0/pblh7uqrdjs/s1600/Mikkelson+Museum+225.JPG)

#### **Stefano**

May 21, 2014

Thumbs up for Ian once more !... wel I have experimented with a tethered yuloh on my Farrier trailertri 720, and could move the boat to go to the mooring at about 2.5 knots (850 kgs boat + load). But I would have never thought it could be mechanized and made to be operated pedal wise. This little boat is packed with ingenuity and I will follow further on its developments.

The idea of yuloh-sculling my little tri sounds very attractive and I should give it a try but probably, as you suggest.. just plain oars would do, If I can provide sufficient space to operate them when the nets are hung and stretched across the akas.

I shall investigate this chance further since it seems the most practical at the moment.

Thanks for sharing info again...

**ian**

May 21, 2014

Hi Stefano-

This one is very, very close to what I envision as far as the general layout of a mechanized dual sculling system suitable for a trimaran application...it's hand powered here but could be easily made to work with foot power-

[http://www.youtube.com/watch?v=tcNaV3\\_3n3U](http://www.youtube.com/watch?v=tcNaV3_3n3U)

What I really like about this is that it achieves the same "always on" effect as the Mirage drive- but allows the fins to move independently and doesn't require any additional steering gear or inputs, and is dirt simple...if you wanted to get fancy you could also rig the blades to rotate 180° on command and then you'd have reverse.

One thing that I realize on further thought is that the vertical blades \*do\* give maximum forward thrust...traditional sculling oars that trail aft of the pivot spend some of the input power digging down into the water and taking the transom slightly down with it...

in practical use the more perpendicular your single oar is to the water you get more potential for speed at the expense of steering...conversely a sculling oar that is almost parallel to the water will steer nicely but otherwise much of the power is used making that big sideways sweep and a lot of that arc is directing water at angles that are less than optimal.

In practice the ability to adjust that angle might come in handy and could work almost like bike gears to allow easy starts (trailed aft) and more efficient cruising (blades vertical) once you overcome inertia and get up to speed...it might let you use blades that would otherwise be too large to get going from a dead stop without tons of effort.

Bottom line is that like the Hobie drive this one gives the benefits of sculling but overcomes the biggest drawbacks of the traditional methods- you aren't limited to one blade and you can really get your legs involved.

One drawback I see is that one half of the stroke is pulling aft, which isn't an easy or efficient way to generate and apply leg power...but a spring of some sort could be used to assist that part of the stroke, with the stored energy coming from the far stronger leg push motion...I like this better than a traditional rotary peddle because even though it requires more initial push to move the blade \*and\* store that extra energy, it lets you rest part of the time while the boat is still being propelled.

#### **Small Tri Guy**

May 21, 2014

That is really interesting Ian. I've never seen anything like that before rower-sculler before. Amazing what human beings can imagine/create/innovate if they're free (meaning they don't have government regs prohibiting them) to do so. Amazing.

**ian**

May 21, 2014

Hi Joe,

I agree on the freedom to innovate...to be fair, a lot of the current interest in human powered boats is being driven by restrictions on traditional IC motors and fossil fuels both because of water and noise pollution and also to protect sensitive marine animals and ecosystems...but those regulations are almost always reactive rather than proactive, often treat good intentions and emotion as more important than actual results, and usually ignore the free market factors that are also driving those trends, that are often already well on their way to solving the problem to begin with...

one example would be the fact that as IC vehicles become more efficient in converting hydrocarbon fuel to motive force they usually have lower noxious emissions as a result, and manufacturers are always considering ways to improve mileage just as a selling point so emissions will naturally trend down also...but when cars first started having emissions controls mandated, the "solution" that the market made under mandate was to simply pump more air into the exhaust stream so that the readings at the tailpipe showed "fewer" hydrocarbons as a percentage of total output, and then only at idle...exactly what the law mandated as the "result" that would "help".

In actuality the emissions were the same whether the pump was operating or not and the added weight and power consumption of the air pump burned \*more\* fuel and made extra exhaust, and not just when the pump was doing its thing at idle.

Four stroke outboards have been similarly mandated in many waterways and all in all they make sense and will naturally improve with time, but the reality of IC power strokes means they will always use more fuel for the same power output because the crank has to move twice the distance to get the job done...so again you burn more fuel in the name of reducing pollution, and kill major incentives for improvements in all but the mandated approaches.

One interesting point I had never really thought about regarding foot power is that while modern people might think of it as inferior, antiquated tech for all but a few tasks, it is really a result of the industrial revolution and was a very important part of it before steam and later cheap electricity came along...it was a major sea change in human history-

"The historical importance of pedal powered machines can be easily overlooked by people who grew accustomed to fossil fuels and ubiquitous electricity. Therefore, it cannot be stressed enough how much of an improvement pedal power was in the light of thousands of years of human drudgery...no matter how simple it seems to us today, pedal power could not have appeared earlier in history. Pedals and cranks are products of the industrial revolution, made possible by the combination of cheap steel (itself a product of fossil fuels) and mass production techniques, resulting in strong yet compact sprockets, chains, ball bearings and other metal parts.

Prior to that time, the available materials were not strong enough to take the large force that was acted upon them. This is even truer for stationary pedal power than for road bicycles, because the strain on parts is considerably larger. Experiments in the 1970s designing pedals, cranks and bearings for stationary pedal power units using pre-industrial materials like wood failed."

<http://www.lowtechmagazine.com/2011/05/history-of-pedal-powered-machines.html>

I highly recommend that article and site for some great detailed info on human power and old tech (great links too) ...this one has some really interesting and insightful stuff re: the real world limitations, and actual figures that will no doubt be helpful to anyone considering how to proceed-

"While athletes can produce a power output of over 2,000 watts on a bicycle, they can only sustain this over a period of a few seconds. The power that can be delivered by the average person over a sustained period of time is much less impressive than that: 75 watts or 1 "hup". This unit of measurement (short for human power) was proposed in 1984, and tells us that an average person can sustain one hup for all day, 2 hups (150 watts) for roughly two hours, 3 hups (225 watts) for about 30 minutes and 4 hups (300 watts) only momentarily."

"Another reason not to be overly-optimistic about the energy output of stationary pedalling is the fact that a stationary pedaller does not need to overcome air resistance. This sounds like a good thing, because at higher speeds a cyclist spends most of his energy compensating for air resistance. However, air resistance also keeps the active human body from overheating...While body heat production might provide interesting side-effects in winter - you and even other people in a small room would not need heating - it would definitely limit the energy that can be delivered by pedal power."

<http://www.lowtechmagazine.com/2011/05/pedal-powered-farms-and-factories.html>

But back to the blades-

Another similar setup is the flapping foil or fin drive-

<http://www.youtube.com/watch?v=3PdOIXvfB3g&feature=youtu.be>

<http://www.youtube.com/watch?v=dtv-5t8F29U>

I don't know how that action compares to the side to side arc of a sculling oar but it's an even easier linkage that might even be combined with or added to more or less conventional twin rudders- if the secondary (aft) tiller arm in the second video was locked down the blade could function as a traditional rudder (you'd need to seriously consider CLR changes though if it hung that far aft and was retrofitted to an existing boat).

Efficiency aside, that setup would probably make shallow water operation easier and safer than the forward sculler and Mirage type drives, which seem like they might be easily damaged in a grounding and susceptible to fouling- the vertical axis rudder-like fin could still use a conventional kick up scheme in the event of a crash.

**Small Tri Guy**

May 21, 2014

Hi Ian,

That "power fin" (featured in the last youtube link above) is really neat. It could even be combined with the pedals featured in the first video for an even easier system (less work).

**Stefano**

May 21, 2014

Ian, thanks again for the bounty of info. I'm a little more positive about the capability of structured wells to hold the pressure from legs... after all we are speaking one HUP right? ;-)

My daggerboard case has survived quite some abuse so I'm confident I can build something that would support this pressure. The one reason for going pedal and recumbent, is that I'm thinking of something that would push a small trimaran while trolling for fish. A friend of mine developed a serious elbow pain from paddling with a carbon two blade paddle and now cannot get rid of it. So he wants something to go trolling with, motorless, that would work operated by legs.

If you can find any source that shows how to mimic in a DIY mode the two blade submerged sculling fins I would be delighted to give it a try. It must be a "drop in" unit...

**ian**

May 22, 2014

Hi again Stefano,

I have no doubt that your boat can handle the strain or if not it could be beefed up sufficiently, I was just bringing that up for general purposes...the power a human can develop when braced adequately is small compared to horses, but it's still enough to break things, including the body itself if something else doesn't give first.

I don't know of anything that is a drop in DIY analog for the Hobie drive and that sculling motion short of just copying it, which might not save a lot of money in the final tally if you built it with the same level of durability and adjustability.

That said I imagine that the adjustability of the Mirage unit probably does represent a significant amount of the design and production costs, so building one that fit one person or size range might be worth the effort.

A simpler (if less efficient) unit that I have considered would be one that uses a scissor-type crank/arm assembly with pedals on top like the Hobie, but no chains or gears... the blades would work something like the hinged "Water Witch" paddle linked above, with one on each side....when viewed head on the arrangement would have an upside down T shape, split in the middle, with the pivot/axle somewhere in the board trunk region.

In operation, pulling back would send the blades forward in a feathered (horizontal) position; when the leg motion reverses the blades would swing on a hinge into a vertical position until they hit a stop, at which point you apply the power stroke...essentially a mechanized version of a duck foot, but with scissor arms for the legs-

<http://www.youtube.com/watch?v=rfThZUrWQQ>

It would be more like rowing in that you have a return stroke that doesn't develop power (and it occurs underwater so add more drag)...but it does have the advantage of being extremely simple, plus you would have the option of moving both blades like one big paddle in one big forward push, or applying power one leg at a time like traditional pedals- which could let you apply power off center to steer with if you just kicked one pedal while the other blade was stationary and feathered.

If you made the blades and underwater parts so they were positively buoyant, the extra effort needed to submerge them to the forward "ready" position could be stored and then released as they moved backwards and floated back up...this could help spread the effort out a bit between the power and return strokes, and for very low speed operation you could just do the easier return stroke and then let them float back up to develop thrust.

Floating blades could also be used to keep them in an aft-trailing low draft position when not in use, sort of like retractable landing gear on an airplane, assuming that the trunk and other parts would allow that range of motion.

# ONYX 16 Trimaran Launching & 1st Ride

May 22, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: ONYX 16 Trimaran

## Comments

**Wade Tarzia**

May 22, 2014

Interesting aka hinges. They look like the one Gary Dierking designed for his outriggers (vertical folding), but I couldn't get a good look at them. Anybody know?

**Andreas Kaltsas**

May 22, 2014

There it is...this one is taken in the building process.

[http://2.bp.blogspot.com/-\\_Fy6ValL3RE/UfIVsUAcYgI/AAAAAAAAAjw/rD\\_d\\_37tHNE/s1600/DSC01207.jpg](http://2.bp.blogspot.com/-_Fy6ValL3RE/UfIVsUAcYgI/AAAAAAAAAjw/rD_d_37tHNE/s1600/DSC01207.jpg)

**Small Tri Guy**

May 22, 2014

Thanks for the photo link Andreas! Great shot of the crossbeam hinges.

**Wade Tarzia**

May 23, 2014

I see. I think Dierking's is much stronger.

**Small Tri Guy**

May 23, 2014

Hi Wade,

Is there a web link to Gary's aka hinge design? Just curious.

**Andreas Kaltsas**

May 23, 2014

you mean this??

<http://3.bp.blogspot.com/-2Ftidl8fQHQ/TrxAx2embpl/AAAAAAAAA5Q/XqyCq63bl3s/s1600/PB110310.JPG>

**Wade Tarzia**

May 23, 2014

Good question. I have seen photos of aka hinge and plans for it, but for the life of me, can't recall if it was posted on the old yahoo proa group, or Wooden Boat forum, or on his blog (most likely). These are rugged 3/16 thick (I think) stainless steel sheet pieces, simple enough to do yourself if you have some good tools but I think he recommended having the local welder or machine shop help you out if not. A cursory look through his website did not result in a photo but perhaps I did not look closely enough:

<http://homepages.paradise.net.nz/garyd/>

Or his Outrigger Blog in past posts of ~3 years ago? : <http://homepages.paradise.net.nz/garyd/>

**Wade Tarzia**

May 23, 2014

PS — Found it on his blog! There he shows the plywood mock-up, and later posts show the real thing. Simple but strong:

<http://outriggersailingcanoes.blogspot.com/2011/11/crossbeam-hinge.html>

**Wade Tarzia**

May 23, 2014

And the finished one:

<http://outriggersailingcanoes.blogspot.com/2011/11/it-folds.html>

Sorry for all the piecemeal posts. That's how my brain works.

**ian**

May 23, 2014

Assuming a large enough section of non-tapered crossarm to slide things, if you flipped over the strap hinge in the top pic from Andreas and mortised it in so it was flush with the top surface of the beam you could use simple sections of carefully sized rectangular structural tubing for sleeves that could slide over the joints to straddle them and "splint" the joints.

There would be virtually no strain on the hinges in the fold direction once sleeved and so the hinges would only need to be strong enough to handle what happens after folding, not full sailing/heeling strains.

then you'd only need one small pin or thumbscrew or simple catch to keep each sleeve from sliding out of position, that you could then override when you wanted to slide the sleeves away for folding...



same hinge but far less fabrication work and hardware with only one small protruding part to catch lines and bare toes on, if that – you could use an internal button/ball type spring latch (like on a telescoping a beach umbrella pole) and have no protruding external parts when sailing.

I would also make a through hole in the upper area of the sleeves in line with the hinge pins so that if one or more of these sleeves got bent and wedged in place (the tolerances would need to be close), you could still drive the pins out and get the sleeves off.

**Small Tri Guy**

May 24, 2014

No problem Wade. So glad you found the page. It seems to be the one Andreas located on the URL he posted. What I love about it is that it's soooooo simple. Gary is, IMO, a master of functional simplicity. I think the actual finished ones Gary posted look good too. He mentioned the possibility of painting them to make them less conspicuous. I see no reason to do so. I think the look of his simple hinge design matches the overall look of his boat nicely.

**Andreas Kaltsas**

June 16, 2014

After your suggestions and my concern, I finally upgrade the folding system. I made the same one that the Cross 18 trimaran uses. You can see it at <http://onyx16.blogspot.gr/2014/06/new-folding-system.html>

**Oleksiy**

March 28, 2021

Cool , very solid, good developed design. Especially for hand made.

I like it!

How can I get plans for building?

# What Frenchmen Do In Their Spare Time – Continued

May 22, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Trimaki Trimaran

## Comments

### Stefano

May 22, 2014

Just a comment on the video contents:

in one, the designer-builder-owner explains that the raid trimaran was built in Madagascar with not many tools, no clamps for example. So he had to make do with some of the materials on site. Some of which as the mdf he used to produce a male mold were of bad quality. If I understand correctly the skin is just fiberglass set in epoxy: two layers of 600 square grams per square metre, which in a 50% ratio with epoxy gives 2.4 kilograms per sqm ( about 5 pounds)

The goal was to keep the boat ( 6 meters) light at 200 kg – 440 lbs, with only 200 kgs cargo capacity, so a crew of two plus minimum equipment.

amas are modified dart catamaran hulls and the rig is also adapted from the dart (possibly the 18) with an added schreecher on roller.

Underwater body of the amas shows added keels to prevent damage from the occasional coral reef head banging into the amas.

I presume the trimaran has found much inspiration in the magnum 21 tri, at least for the main hull shape.

The goal was to carry out a 300 NM raid in one of the most secluded areas in Madagascar ( see images) on the eastern coast. They enjoyed light breezes until the trade wind established over one day and started blowing with a quite stiff breeze ( see footage).

The trip appears to have been successfully concluded.

All the rest is narration about the trip and jokes about the two members of the crew.

### Small Tri Guy

May 22, 2014

Thanks for this great additional info Stefano!

### Stefano

May 22, 2014

PS. The Designer builder owner is a gym teacher of french origin living in Madagascar.

the hull is epoxy(glass, all decks are plywood and the akas are laminated plywood (no clamping possible).

Conceived for navigation in shallow waters of the Masoala National park lagoons of Madagascar.

The amas fins are plywood epoxy reinforced with SS.

The draft when fully loaded does not exceed 30 cm ( 1 ft). In October and November the SE trade wind is generally well established but a small outboard is needed for safety reasons in case of persisting calms. Cargo capacity including crew is 250 kg (not 200 as previously stated). In order to extend their self dependency, the crew embarked a fishing rod, but they proved to be better sailors than fishermen. (you bet... at that speed !)

### Dan

May 23, 2014

That was fantastic! Why no manufacturer makes a little tri like that is beyind me.

### Stefano

May 25, 2014

Hi Dan... I have no stake in their business whatsoever, but the Magnum 18 and namely the Magnum 21 are pretty neat boats (Virus boat is the producer, much info in english in importer Ahoy boats). They are very efficient daysailers with quite a capacity for load (up to 6 people on a daily outing) can be rigged on a trailer in probably less than 15 minutes, are totally unsinkable (injected closed cell foam in the main hull: you can cut it in half and it will still float) and also very robust in build (fiberglass on the main hull is about 1/4 inch thick. They also take a small outboard and the 21 has a specific foam insulated chest for cold beverages... Champagne, beer, sodas, white wine, freshwater... you name it. They make excellent campo cruising boats and are much fun sailing at speed while some members of the crew just stretch in the sun over the nets stretched over the akas.

Downside they are a bit costly ( at least for what I am ready to pay small open trimaran).

# Strike 15 Trimaran Owner's Report

May 30, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, Strike 15 Trimaran

## Comments

**Andreas Kaltsas**

May 30, 2014

Lovely tri design from Richard with plenty of mods from Patrick. Excellent result

**Stefano**

May 30, 2014

This particular trimaran seems to be quite different from the original project: <http://www.sailingcatamarans.com/index.php/designs/27-trimarans-under-25/223-strike-15-trimaran>

The akas are not foldable, and this gains weight and I cannot see the large cockpit but rather a sailing platform. Perhaps akas are carbon fiber ?

What other modifications were introduced ? What sail area is this compared to the specifications for 14 square metres ?

**Patrick**

January 25, 2015

Hi Stefano,

I just discovered this link on Richard's website, so, I answer lately. I am the builder of this Tri. I suppressed the cockpit box and swinging arms of the original design to get less weight and more stiffness. I use trampolines instead.

yes, Akas are 3.5 m carbon tubes, 80 mm OD , 2.5 mm thickness. Waterstays are

vectran. I use a shortened A class cat mast ( 8 m length, I recovered a broken one at small price). Main is a shortened A class cat 12.9 m<sup>2</sup> , Jib is Hobie 17 one, 3.7 m<sup>2</sup>. So the total area is close to 17 m<sup>2</sup>, and I need trapeze to windward quickly. Total weight is 128 kg. Slower than my A class cat, but very nice and cool to sail ! Faster than Dart 18 solo or double.

I am now starting the building of a Strike 20 Trimaran designed by Richard Woods.

It will use Nacra 5.80 hulls and 100 mm OD, 3.2 mm thick aluminium tubes for swinging AKAs, together with a Tornado rig.

**samuel vermeulen**

June 23, 2015

hello

where can i buy this plans to build one like this

plais let me know

greetings samuel

**Small Tri Guy**

June 23, 2015

Here Samuel - <http://www.sailingcatamarans.com/index.php/designs/27-trimarans-under-25/223-strike-15-trimaran>

**early sorensen**

May 26, 2017

Patrick, bravo! Are your amas the standard Strike 15 amas? Or perhaps the Quattro 14 hulls used as amas. Thank you.

# Double Outrigger Sailing Canoes in Micronesia

June 5, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: double outrigger canoe, Micronesia double outrigger, sailing canoes, trimaran canoes

## Comments

**ian**

June 6, 2014

I would have assumed that the Javanese boat "grande piroga da viaggio del Sec. VIII " was influenced by contact with the Portuguese- it looks for all the world like a primitive attempt to recreate a European 'age of discovery" vessel with the square sails and bow sprit and exaggerated stem and stern posts...

but those boats didn't arrive in Indonesia until the early 16th century, and "Sec VIII" is the eighth century unless I'm completely missing something.

Also intriguing considering that one place where it differs from a Portuguese caravel that would have been showing up with that type of general layout and sail distribution is that it doesn't have any lateen sails.

Makes me wonder if maybe the square sail had already been tried and abandoned by non-european sailing cultures for ocean passages long before they gained popularity in other cultures...I may be wrong but I don't think that this was still the kind of rig Indonesians were sailing when the Portuguese showed up.

the aka connections are very sophisticated and unusual...I'd love to know how they got four consistently bent members for the outer sections in the 8th century...whether they were grown that way or shaped it suggests that this was a very serious vessel with a lot of precious resources put into its development.

Perhaps it's something akin to a giant transatlantic paddlewheel steamship- a state of the art high tech vessel when launched but quickly superseded by better technology that rendered it obsolete...or maybe it's like Leonardo's drawings of flying machines; an artists conception of an idea ahead of its time that may or may not have been built but would likely have failed if it had.

the boat with the extended stern deck is another one that makes me curious...different cultures have developed that shape independently but most of the early canoes with that feature are very minimal by comparison and the earliest examples I've seen were Chinese...that one is as radical as anything seen today on modern tris and I'd love to know where it fits in on a historical timeline.

**ian**

June 7, 2014

I looked up more on Aldo Cherini and learned that besides being an amazing illustrator, he was a bona fide historian-

(via google translate)

"artist, historian and writer

born in Koper

1919

Called to military service during the war, he earned the rank of lieutenant and then lieutenant in the specialty motorized infantry.

Married with two children, has worked in the field of counseling in labor law and administration.

Up to the time of the exodus of the family, which took place in 1952, lived in Koper, an active part in the various societies and associations, sports and cultural towns (even at a competitive level boating, hiking and caving, town orchestra as second violin, painting and drawing with participation in some collective exhibitions and staff).

He has been involved from an early age home and maritime history, has published a book on his own and co-author with three books, he has collaborated with its chapters to three other volumes Various Authors, published a dozen pamphlets and has written numerous articles for periodicals, magazines and newspapers.

Died at age 91 in Trieste on 11 December 2010.

In 2008 he was awarded the prize by the Istrian HISTRIA EARTH for the following reasons:

"For his ten years and his life devoted to historical research, the collection of documents to the production of studies and writings laid, and the masterful drawings reflecting the Istrian culture."

<http://www.istrianet.org/istria/illustri/cherini/>

Masterful is an understatement...I've never seen a maritime illustrator with such a deep understanding of what he's drawing, combined with the skills to put it all on paper in a way that makes it both technically correct and evocative, who could do it all with the simplest of drawing tools and a minimum of extraneous lines.

And it's not just one type of boat- he made equally detailed and gorgeous renderings of everything from military vessels from the days of sail to midget submarines and battleships, to anchors-

<http://www.cherini.eu/etnografia/ancore/Ancore.htm>

This appears to be the main drawing index page for the site-

<http://www.cherini.eu/indice%20disegni.htm>

note that there's seven albums of similar illustrations of native craft from the rest of the world...I'm looking in the African one and finding all kinds of magical stuff-

[http://www.cherini.eu/etnografia/AF/slides/af\\_0083.html](http://www.cherini.eu/etnografia/AF/slides/af_0083.html)

[http://www.cherini.eu/etnografia/AF/slides/af\\_0100.html](http://www.cherini.eu/etnografia/AF/slides/af_0100.html)

[http://www.cherini.eu/etnografia/AF/slides/af\\_0324.html](http://www.cherini.eu/etnografia/AF/slides/af_0324.html)

and the one on Oceania is eleven pages, with boats I've never seen or heard of including a gaff schooner rigged double outrigger-

[http://www.cherini.eu/etnografia/Oceania1/slides/O1\\_0077.html](http://www.cherini.eu/etnografia/Oceania1/slides/O1_0077.html)

-and these other New Guinean boats that are just mind boggling when you consider the design knowledge and sophistication and forward thinking going on-

[http://www.cherini.eu/etnografia/Oceania1/slides/O1\\_0076.html](http://www.cherini.eu/etnografia/Oceania1/slides/O1_0076.html)

[http://www.cherini.eu/etnografia/Oceania1/slides/O1\\_0141.html](http://www.cherini.eu/etnografia/Oceania1/slides/O1_0141.html)

[http://www.cherini.eu/etnografia/Oceania1/slides/O1\\_0142.html](http://www.cherini.eu/etnografia/Oceania1/slides/O1_0142.html)

[http://www.cherini.eu/etnografia/Oceania1/slides/O1\\_0143.html](http://www.cherini.eu/etnografia/Oceania1/slides/O1_0143.html)

I have to stop before I go blind...

thanks to everyone involved for exposing me to this amazing resource.

**Stefano**

June 9, 2014

Dear Ian... I was myself astonished at the wealth of information this man has on nautical history and namely the one of the Adriatic Sea... He has publications on the history of pirates in 18th and 19th century and so on... all very documented.

There's only one thing you got wrong... The man was born in Capodistria. Ok, now it is Koper, Slovenia, but he is totally the expression of a Northern Italian, post Venitian culture. Not only by name and country of Origin ( This part of Istria Peninsula was always Italian while Trieste was the main port of the Austro-hungarian empire) but for everything that has to do with the sea... Coastal people were mostly Italians, and Dalmatian dialects reflects this fact still now, to show what influence Venice had in the area way beyond it's end at the times of Napoleon 1st.

This man is the expression of the best side of what our mixed culture country can produce. For once, let me be one proud Italian and helàs, Slovenia - wonderful country and people - has nothing to do with it...

**Small Tri Guy**

June 10, 2014

Great comments guys. I was fascinated by the aka connections. Very very interesting. Lots of visuals to provide fodder for the imagination.

**M. Cristina Piancastelli**

December 3, 2014

My uncle was indeed born in Capodistria, and while living in Trieste until he died, and able to see his home town very clearly from the shore, he never went back. A lot of the drawings are done from memory. Amazing how Corrado Cherini, his son, has been able to upload all of his treasures and to keep his memory alive.

# Best Guess Trimaran Updates

June 12, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Best Guess Trimaran

## Comments

**Andreas Kaltsas**

June 13, 2014

really nice and clever mods

**Stefano**

July 2, 2014

Neat job ! we expect some pics in the water and a report on how the mods perform...

And a tad of explanation on why a narrow stern rather than a wider planing surface aft.

**Steve Gooda**

February 2, 2017

An interesting article. I have tried to email Mr Gallant regarding Best Guess but the link on his home page is not working. Do you have an alternative email address or, failing that, can you notify him of my wish to get in touch. I am considering a similar build and would value his opinion before I make a start.

This, by the way, is a very interesting and useful site. Well done! Regards, Steve

**Small Tri Guy**

February 2, 2017

Hi Steve,

I don't have an alternative contact for Jim. Hopefully he will check the comments on this post and reply to you.

# New Triple A Trimaran From Reused Parts – Now Sailing

June 12, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Triple A Trimaran

## Comments

**Joost Blankevoort**

June 13, 2014

Nice and very speedy looking boat. But also rather heavy for its size. That is ok, it will give you a strong and sturdy boat, but looking at the ama's it is as if they sit deep in the water. Particularly if the ama's are thus positioned that all three of them are still in the water while already sailing. The result seems to be a lot of drag, shown by the wake, the ama's are nearly planing/ leaving the wake behind.

A suggestion might be when sailing at relatively low speeds to sit more in front of the boat and thus tilt all three hulls a bit forward. Doing so will lift the transom a bit and release the water flow from underneath the three hulls. This will cause less wake, less drag and might increase the speed. It is just a suggestion, unproven until tried out. I am looking forward to see a movie with this boat at full speed/ with more wind!!

It has full potential to be a thrill seeking experience.

**Stefano**

June 13, 2014

Looks like a lot of plumbing work in the aka/seat structure...

it reminds me of the earliest connections of Nepau which after all never gave up ( but slid out a couple times). It also reminds me of an old saying . " If you know how to use a hammer, all problems will look like nails".

Neat job :-)

**ian**

June 14, 2014

I definitely like the modular construction of the aka/cockpit space frame...I agree that it's all probably a bit heavy for the boat's size but maybe not when you consider the size of the seating and foot well areas- that would be a very roomy cockpit on much larger tris and to build it using wood or FRP and have it strong enough to work would likely be as heavy if not more so.

That said if someone were considering a similar build the tubing sizes could probably be scaled back a bit and perhaps the seat framing and crosstubes could be integrated more to eliminate some of the redundant tubing and get the akas up off the water...the bottom deck of the foot well is very roomy and no doubt comfortable but might not be missed much if the well portion was narrower ...

the extra framing and weight of the solid deck there seems like it might be worth eliminating, especially since levering that extra weight is part of the equation when trimming live ballast for different conditions, and with two people max that foot well area is not really ever going to be used all at once like it would be with two on each side, something that seating and foot well could easily accommodate.

Or you could just get three larger hulls and bring more people :)

But the best part of this construction method is the ability to alter things as sub-assemblies as you go along or need different parameters..."Tinker Toy" has a negative connotation of being spindle-y and cheap, but the principle is sound and is used in all kinds of temporary scaffolding and railings and similar systems like fences and stairways-

<https://keesystems.com/store/fittings/kee-lite.html>

You could also go the "Erector set" route using fiberglass strut channel and fittings-

[http://www.power-strut.us/index.php?Page=browse\\_parts&home.x=21&Sys=PS-Fiberglass-Channel](http://www.power-strut.us/index.php?Page=browse_parts&home.x=21&Sys=PS-Fiberglass-Channel)

That stuff can get expensive if you have to buy it from a dealer but there's a lot of surplus out there...obviously you need to select the system and parts properly and pay attention to the engineering but the nice thing about those kinds of fittings is that they are all tested and rated and intended to take serious loads and stay safe.

**Hans Schipper**

June 16, 2014

Dear comment/construction friends,

Thank you for your comments,

I want to give some reactions.

About the weight. I estimated the weight. I will weigh the boat on a scale.

The sitting frame is made of 50 mm 2 inch), 2 mm thick, aluminium tube about 0,85 kg one meter. Maybe it looks heavy because of the dark blue color.

The length of the sitting frame is about 1.40 meter.

Where the seat frame hangs I made it stronger with a piece of ten cm 3 mm tube inside. After some use I'm sure it is strong enough.

I have been thinking about use of the kee klamp system but in aluminium it would cost me about 250 Euro. In iron it would be heavy and rusty. Now I assembled it with popnails and the local blacksmith welded it for € 50,-

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

the layers parallel to the hull are about 5 kg. I'm very happy with the use of deck space to sit and where the mainsheet and jib sheet remain.

I agree that the ama's position are too low now. However It can be useful when I make hydrofoils.

This weekend I could use te boat with windspeed 4 + beaufort. I reached a speed of 20 km/h (10,8 knots) according to the tomtom.

With speed above 12 km / h , there arises lift and the ama's easily loose the water.

The more wind the more I have to sit backwards.

I hope to be able to use fixed hydrofoils now I can influence the horizontal position of the boat with my weight. Adjustable hydrofoils are technical too difficult for me to make.

I will show a video of this trip on youtube

**Chris**

October 22, 2015

Hows going with theboat? Any new features? Looks so cool. Want to ser more

Chris

**Hans Schipper**

November 2, 2015

Hi Chris,

The boat is sailing well. In 2014 it once turned over and it gives a lot of trouble to get it back in the right position. I also lost my accu. I made a hatch in the main hull. That gives some storage space and I have fixed the battery in it. In order to better control the force on the sail I made a successful traveler. I love windy determine the line of the traveler rather than the mainsheet and that gives better control. The highest extracted speed was 22.3 km / h. The sailing characteristics are good and you can sit there comfortably on where you stay reasonably dry by the altitude.

It's a real daysailer single boat and that made me decide to go this winter to build a new trimaran. I hulls of a coolcat 15 as amas and I'm going to build a five meter main body 4 cm styrodur insulation sheet coated with epoxy / fiberglass. By cutting into the plate to half thickness and gluing in a mold, I hope to form an S-shaped hull. I just have made specimens.

I will show it on this site when the hull is made.

**Chris**

November 2, 2015

Hello Hans! Thanks for the update. Looks that you have a great design coming up then. Looking forward to see that.

I have built a really small trimaran my self (www.chryz10.com). Its performing very very well for its length, but.. its too short (10feet). I'm looking for a new center hull.

Maybe build a new center hull or use some beach-cat hull, 16-18. any advice? Where to buy?

You can see some photos on my blog, and a video how it performs right now

[https://www.youtube.com/watch?v=YlIX\\_aS7lek](https://www.youtube.com/watch?v=YlIX_aS7lek)

br

Chris

cholsson AT gmail.com



# What is a Multihull? – Short PDF Report by Jim Brown

June 13, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Jim Brown, what is a multihull

No Comments

# Little Wing – A Complete Sailing Kayak

June 18, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Little Wing Kayak, Little Wing trimaran, Ted Warren, Warren Light Craft, Zac Warren

## Comments

**gerald sandahl**

August 22, 2018

Hi, my friend has a warren little wing 15.5 carbon fiber kayak about 5 yrs old, he is ill and wants to sell it, iam helping but have np info on the value of it, they are out of business, does anyone there have a clue?

**Small Tri Guy**

August 22, 2018

Hi Gerald,

As you can imagine, the “value” lies somewhere in between the price the seller wants for it and the price a potential buyer is willing to pay for it. This is especially true for boats. I'd list it for the price the buyer really wants, and then if necessary, drop the price incrementally, over time, until calls start coming in from people seriously interested in purchasing it.

**Jim Stuart**

January 26, 2019

Hi Gerald. Did you find a buyer for the Little Wing 15.5?

**Lany young**

January 30, 2019

Would like to buy a little wing light craft trimaran

# Oystercatcher Trimaran – The Trinidad Tale Continues

June 18, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: bieberboats, Oystercatcher trimaran, Paul Bieker, ptwatercraft, Russell Brown, Trinidad trimaran

No Comments

# The Shrek and I – Windrider Trimaran in Texas 200

June 18, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Texas 200, Windrider trimaran

No Comments

# Tryst – A New 10-Foot Dinghy Trimaran Design

June 27, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: dinghy trimaran, Duo Dinghy, Richard Woods, Tryst Dinghy Trimaran

No Comments

# Buccaneer 24 Trimaran For Bermuda

July 4, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Buccaneer 24 Trimaran, Lock Crowther

No Comments

# A Buccaneer Goes Forth (With a Non-Ballasted Fin Keel)

July 10, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Buccaneer 24, Buccaneer 24 Trimaran, Buccaneer Trimaran, Lock Crowther

## Comments

**Robin Bennett**

July 13, 2014

I enjoyed reading this, but couldn't leave this misconception uncorrected:

> water, which for our purposes is not compressible, and weighs over seven hundred times more than air, an immersed foil, on a sail boat would, in effect, be moving at supersonic speed.

Water is virtually incompressible but supersonic flow is all about compressibility, and the speed of sound in water is many times faster than in air.

**Patrick McGrath.**

July 14, 2014

I knew someone would pick me up on this one.

The words I said were "in effect".

Air is compressible. IE- elastic. It will move in a rubbery way out of the path of a moving object, up until that object is moving at a speed where the air doesn't move quick enough. A compression shockwave then appears, producing a sound. The sonic boom. Or the "Snap" of a passing bullet. This is where the term "The Speed Of Sound" eventuated.

Water, being incompressible, has to be shouldered out of the way at all speeds. Check the overhead picture of a boat going through the water. Then view a pic of an aerofoil in a supersonic wind tunnel. Both will have the identical shockwave at the leading and trailing edges. I simply reasoned that a supersonic section would be better than any other shape for a leeway resisting foil in water. And I was right.

**Robin Bennett**

July 24, 2014

You may well be right but I'm not convinced by the logic.

All sound is a compression wave. It becomes a shock wave when the source is moving as fast as the wave.

Aerodynamicists treat air as incompressible at subsonic speeds. An object moving through an incompressible fluid creates pressure disturbances that travel at the speed of sound, moving fluid out the way some distance ahead of the object.

A boat's wake does look like a shock wave, but you're confusing slow surface waves with the speed that pressure disturbances can travel under water. A boat is traveling faster than it's bow wave, but much slower than sound waves.

To me, a supersonic section makes a lot of sense for a surface piercing object (such as the main hull of a boat) when you want to minimise the bow wave, but it makes less sense underwater.

## Afterword to “Among the Multihulls”

July 10, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Among the Multihulls, Jim Brown

No Comments



# Nicky Cruz 25 Trimaran Sailing in New Zealand

July 15, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Graeme Delaveau, Nicky Cruz 25 trimaran

## Comments

### **Graeme**

July 16, 2014

Thought I'd mention that the sails on Greg's Nicky Cruz 7.6 are off a 'Magic 25' and needed only minor alterations to suit this design.

Cheers Graeme

### **Stefano**

July 17, 2014

Lovely boat indeed! To my eye, proportions and overall looks are much more attractive than its smaller sister... Although knowing that a smaller boat has different needs to fit in the design picture, I believe that some details such as more refined cockpit and buttocks would greatly improve appearance and attractiveness of such tris.

On this specific one, probably the larger size makes the aft aka and aft "scoop" pleasant, even more so when looking at the wake ;-) ...

To Graeme: Can you give us some specs for this boat, including adapted rig ?

### **Greg**

July 19, 2014

Hi all,

Stefano, glad you like the boat. We did not adapt the Magic rig, only the sails, which I was fortunate to get at a very good price. I had a new mast made. The rig is pretty much per plan but is a half metre taller and fixed rather than rotating. The Magic 25 sails were already within 100 mm or so of the designed sail plan in any direction, so were relatively simple for my sailmaker to modify. The main mod was to straighten out the luff on the main as the Magic mast is much bendier. My mast is a 130x90mm section, untapered so if I want to go to a square top later the rig will be stiff enough.

Otherwise, the magic 25 jib had the clew lifted to suit sheeting to the cabin top and a standard Magic gennaker fly's from the masthead without modification. I also have a storm jib and am currently getting a (fractional)screecher made.

With the current sails I can carry full working sail in 20 knots upwind comfortably, and with a little judicious feathering and main playing she seems comfortable in 25 (I would point out that I have gradually worked up to higher wind speeds during extensive test sailing, crewed and single-handed over the past 11 months). Light weather performance is also very good and she sails nicely and tacks readily under main alone. All in all I'm very pleased with the way she handles and performs.

# Building Double Outrigger Canoes Using Expandacraft

July 17, 2014

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: expandacraft, outrigger canoe, patriot outrigger canoe

No Comments

# Introducing the Slingshot 16 Trimaran

July 24, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: diy-tris.com, Frank Smoot, slingshot 16 trimaran, slingshot trimaran

## Comments

### Stefano

July 29, 2014

I am a great admirer of Frank's work; we've also had some correspondence in previous years.

However, on a 16 ft boat I'd rather be able (not an obligation, but a chance) to carry along a friend, or a child, or even a dog or cat, and have them sitting to my side :-)

There's enough space Frank, let's go for it ! Let's have a slingshot double ! :-)

cheers for all your projects, Stefano

### Frank Smoot

August 15, 2014

Thanks for your kind words, Stefano. To respond to your message, I will very soon be releasing plans for my 19-footer, which will hold 2 or more people. I'll let Joe know as soon as they are available.

Take care – Frank

### Phil

July 18, 2018

Hi Frank! I just stumbled on your site. I am also a closet small tri junkie. I've been toying with the idea of using surf boards for amas. Any thoughts?

### Frank

July 19, 2018

Hi Phil – I have never done it, but I think you should give it a try and see what you discover.

Cheers – Frank

### Tony Watermann

August 19, 2018

Phil, been done before. A while back by an English woman I think. Search Google she might have actually used old windsurfers. Cut them along the centre and used either side.

### Phil Horsman

August 20, 2018

Hi Tony (love the last name, btw!)

What I didn't make clear is to use whole, very small surfboards, including fins, laying flat on the water just as if you were standing on the board. My theory is that as soon as you pick up a little speed the board will plane and offer a tremendous amount of lift/stability while still being able to pierce waves. My hope is that by canting the inside edge down slightly it will also aid in upwind effort like you were initiating a turn. Stay tuned!

### Tony Watermann

August 21, 2018

Hi Phil,

Having surfed for near on 35 years the surfboard concept will work but only to a limit.

Frank has experimented with various AMA designs with flatter bottoms to induce a planing effect. Depending on many variables I think his overall conclusion is that they slap a lot more and induce vibration depending on wave frequency.

Have a look at the WR16 AMA design, they have a wave piercing nose and then flatten out at the mid going to the back so that as speed increases they offer a planing surface for added lift over displacement.

The problem you might encounter with a surfboard as an AMA is the dreaded nose dive effect. Having encountered a few steep drop in's on waves over the years they do bury with enough momentum, the board wants to stop whilst whatever is attached to it (surfer or boat) wants to keep going. I would imagine with rigid AKA connections that this would put a lot of strain on them.

What you could try is to copy a Hawaiian outrigger AMA design in foam core with a strong stringer (wooden bit down the middle). They like the WR16 wave pierce at the bow and then broaden to plane.

The main thing to remember is that AMA's encounter many various wave directions from the front predominantly but also from the rear in a following sea.

On my little tri which is an 11' Bazooka I was considering some new AMA's. But the more I thought it through regarding volume, shape and overall design the more I saw just how well designed the existing ones where.

They are symmetrical in design which basically means the same shape at the front as the back so that when fitted it makes no difference to performance.

Wave piercing ends broadening to a full round mid section. No flat planing surface but the main hull essentially is very flat and planes which pulls them along the surface like they are planing. It's an easy to balance boat with simple hiking out on the tramp so that the leeward AMA is not immersed too heavily.

If you get hit by a big gust the AMA design will submerge, but being essentially torpedo shaped they just missile through the water with a drag increase that slows you down gradually and allows you to spill wind from the main and hike out further to counter the strong gust.

In a heavy squally we got hit by a 35knt gust, 1 man out on either side and one child in the front. AMA sunk on the leeward side and induced a short jibe which further filled the sail and drove us harder into it. The AMA simply torpedoed through the water as we had time to shift our weights and counteract the forces.

So what i'm essentially saying is that these little outrigger thingy/s actually do a lot more than just float. There are many variables involved in what they encounter and depending on what you want to achieve your design will need to adapt to these or suffer / benefit in other ways.

A planing design like a surfboard will work, but it will also change the dynamic of what you are doing and accordingly things like performance, sea kindliness, and handling as well as induced loads across the entire boat.

If it's not a big job and you have some old boards around have a crack at it. Otherwise it might be cheaper to put something like Wesley's expandacraft outriggers on instead. <http://expandacraft.com/>

Also as a side thought the fins on the board may be too far towards the rear and mess up the rudder loads a bit as the boat tries to pivot around them with the sail loaded. (The sail wanting to turn the boat with the wind, and the fins resisting at the rear act like a pivot).

The Expanda's look like a good general design and are very adaptable. But you could likely build some ply AMA's a lot cheaper.

**philip horsman**

August 21, 2018

Hi Tony,

Thanks for that excellent information. I do worry about the slapping, but having windsurfed for 35 years ?, I am not too concerned about pearling, at least in protected waters. I had not considered open waters with large swell or a following sea, but my sailing is going to be mostly lakes or some place like South Padre Island. I may still give it a go and will share if I do!

Cheers

# Road Rash Plywood Trimaran Design-Concept

July 30, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Road Rash trimaran

## Comments

**Stefano**

July 31, 2014

Hi... Neat concept... I hope to be able to introduce mine soon.

Having owned a trailertri 720, mostly built from 6 mm lauan, 9 in the keel, and 4 in the amas, I would never go again for anything such lightly built, unless it is a dayboat (and even then). The resistance to puncture is very limited, and even tiny cracks start building rot which travels in the parallel fibers.

I would do without epoxy fiberglassing: costly, time consuming, and a big hassle and useless work or worst if too thin a layer, and go for thicker plywood with PU paint.

Stiffness being a function of thickness, with an 8 mm ply instead of 6, you can gain about 60% more stiffness with only a 25% percent increase, and have a much larger margin over dings, puncture and similar.

this is my 5 cents tossed in...

**Small Tri Guy**

July 31, 2014

Hi Stefano,

You've certainly got some experience in this area. I am curious now. To clarify what you are saying, based upon your experience, for example, if you were building a boat from designer's plans and the building plans called for the following:

— 1/4 inch plywood covered with 4 oz fiberglass cloth covered with 3 layers of epoxy resin

... you would simply use thicker plywood and skip the whole fiberglass/epoxy thing?

**Stefano**

August 1, 2014

Hello Joe...

well my doubt started when a friend built a kayak and did not skin it in epoxy. He just soaked it in 2 part PU paint (gloss) starting with a 50% dilution and working 5-6 coats up to required thinning ratio and lightly sanding (wet sanding) in between. This process gives a very tough, scratch proof and resilient surface which, up to now, holds even better than PU paint over epoxy and epoxy+ fiberglass.

After seeing what a neglected surface (farrier TT 720) covered with very light fiberglass skin can do (I call it "pressure cooker" effect) I am convinced that there is no way to go less than several layers of fiberglass, well worked with roller and bubble braker over radiused corners too (an iron roller tool with spikes protruding braking air bubbles trapped under gelifying epoxy).

This is especially true when you have a hot humid climate (Mediterranean for example) or a climate where the fiberglass shrinks or dilates much in seasons, while the wood keeps pretty stable. You will have sooner than later a boat that has a delamination between the epoxy skin (especially if you are going as light as 4 ounces. I will speak grams per square metre, but I never use any less than 160 grams / square metre, and 200 is much better. I use 330 grams biaxial where abrasion and structural issues really matter.

Now, this makes the difference: the laminate is something else, but it is very demanding on

1) conditions of application (I heat the surface that needs to be dry and heat the glass too, then pour and spread epoxy. This soaks epoxy well into the wood and the fiber in the retracting air voids (it cools while gelifying instead of the contrary which would otherwise allow for air bubbles to form due to expansion of air trapped in wood and under gelified epoxy/glass).

2) proper rolling to foster chemical adhesion and no bubbles. You need a thousand eyes !

3) Hand layering takes more than 50% resin to glass ratio, so it makes things heavy and costly (epoxy resin, fillers, consumables, primers etc).

4) you have to work with respirators and gloves because of toxicity and allergy probs (true for LP paint as well, but shorter in process, and epoxy still needs to be painted anyhow to protect it from UV, and for color schemes

5) last but definitely not least, you have to do a huge amount of filling and sanding. Time consuming, tedious, noisy (ever sanded with roto-orbital sanding machines thin plywood skins ? You are sanding a huge drum and it sounds like it !!)

All in all, I think that "epoxy encapsulation" is the renovation of the myth of Achilles in modern times: you soak something in a liquid to make it invincible, but eventually one heel gets uncovered, and then again the myth fails : Achilles thinks he's invincible but Achilles rots !

My Nepau little tri is almost 15 years old now. It has 8 mm bottom plywood and sides (okume exterior grade). Yes, these could have been 6 with better engineering, but it's tough, takes a lot of abuse, has been banged hard about anywhere, exposed in the open with little or inadequate coverage for winters and summers, then a little epoxy putty and squeegee, little sanding the spot and paint put it in a "as new" condition. No need to worry if the scratch sealed humidity long enough to make rot proceed along a long narrow patch and discover til where...Not a funny game when you get to windows, structural members and so on.

Remember that Gaboon (okume) plywood is only very moderately durable ( read British standards about it). When it comes to encapsulation, unless with a truly thick (1.5 mm at least to me) and hard skin well adhering to the surface, you are calling yourself into problems.

My recent approach is: pre-finish up to the maximum degree the panels used in boat building FLAT and in optimal conditions. Leave the glue or fiberglass tape spots uncovered. Then if you stain your work in the process, an end coat rolled or sprayed will do, but no drippings, lesser amount of paint, and practically no sanding !! sanding ! Hate that part...

Build thicker, and no epoxy- In true life, when you add up all weights, you will not fall far from thinner ply + many layers of epoxy+fiberglass. As for costs of material, and speed of construction, you win twice, hands down, and your wallet is still there :-)

My recent creation, a double kayak (22 ft by 2.5 ft ) that has to bear 550 pounds of load of which 250 of a single paddler, DOES have 4 mm fiberglass and epoxy ( 330 grams inside the cockpits and bottom + 200 grams /sq mtre outside, in triple layer on the keel for 4 inches strip) But the layering scantling could accommodate a 20 footer sailing day boat most probably and this kayak will be dragged onto rocks, wood debris, sand etc. and this needs scratch proof surfaces and is quite limited in surface.

No epoxy skin on deck.

It took 16 pounds of epoxy and about 14 of glass. Slender monohull, almost an ama in surface terms...Can you imagine on a 25 ft tri what cost, weight and sanding this would result ?

Not for me, thanks ! especially as I have seen the results of lightweight "encapsulation" ...

this is more than 5 cents ;-)

**Small Tri Guy**

August 1, 2014

Hi Stefano,

Great info my friend! Okay, please let me ask some questions using the info you've shared above. (I want to be sure that I haven't misunderstood you).

Let's say I were to build a simple kayak, for example, and the plans called for building it using 1/4-inch marine plywood covered with 4mm fiberglass cloth and epoxy resin. Do you think I could basically build the boat using 8mm plywood instead and then paint it with several coats of PU paint instead?

Would the use of heavier plywood, in addition to several coats of PU paint, give the boat enough strength so that it could be used as it was intended to be used?

If yes, then would you still use epoxy resin (and maybe even some fiberglass cloth) to glue joints and/or bulkhead areas?

I have a few more questions, but I will stop here and let you answer the above before going further.

**Stefano**

August 1, 2014

Hi Joe, I'll be brief this time...

question one: no kayak plans would ask for 4 mm epoxy/glass coverage. That is for a Navy destroyer ! Try again your question with better conversion mm conversion ;-)( or was it 4 ounces cloth ?)

If the question was 4 ounces cloth, then I would say: no way I will use it ...just goes against my practical experience. 6 oz is a bare minimum coupled with liquid epoxy. But epoxy and glass are still very wellcome in thicker layers as an anti abrasion skin (outside, bottom).

Less crucial though if the boat does not reside in the outdoors or in the water ( small boat, kayaks etc resting in garages i.e.)

2) you mean thicker, not heavier (ok...then it gets heavier but I am advocating thicker – thus stiffer – on equal other terms : say okume 8 mm (3/8) instead of 6 mm (1/4) ...

Beware! some compound curves RELY on thinner ply to be feasible, and THEN be glassed over and kept that way... Make sure stiffer ply is OK with the designer...

3) yes definitely: stitch and glue relies on epoxy and fiberglass for joints. However for laminating purposes and some other uses I increasingly use marine grade PU glue (monocomponent) for ease of use. Where joints are not based on S&G, but on skin over frame, PU marine grade (D\$ test) glue is to me a very valid and handy alternative in many ways.

I have also just completed 20 years now paddling one laminated eskimo greenland paddle glued (properly, with pressure) with D3 (external use) vinilic glue, and varnished. No signs of delamination in many years of intensive use and storage outdoors under an open shed.

**Stefano**

August 1, 2014

i meant PU marine grade D4 test...

**Small Tri Guy**

August 1, 2014

Sorry about that Stefano ... yes, I did mean "1/4-inch marine plywood covered with 4oz fiberglass cloth and epoxy resin" ... 4 mm of fiberglass cloth would be a bit too much, wouldn't it? :-)

**Small Tri Guy**

August 1, 2014

Okay Stefano,

So other than putting perhaps some 6oz fiberglass cloth with epoxy resin along the bottom of the boat (to protect it from abrasion) you wouldn't laminate the entire skin. You'd apply several coats of marine PU paint instead.

Now...

Let's now say you want to add crossbeams and amas and an unstayed mast to this kayak in order to make it a little sailing trimaran. Does your experience suggest any potential problems for any of the high-stress areas (such as where the crossbeams attach to the main center hull) if the boat doesn't have the sort of very rigid monocoque main hull that is achieved when entirely enveloping it in cloth & resin?

In other words, if one doesn't laminate the entire hull with cloth & resin, would the boat still be rigid and strong enough in those critical areas (i.e., mast step, crossbeam attachment points, etc) that have to accept the heavy loads that come after a sail rig is put on it?

Perhaps not laminating the entire skin would mean extra strengthening (perhaps added bulkheads) becomes necessary?

**Tom**

August 1, 2014

Stefano...Why PU paint instead of a 2 part paint? Are we talking something like floor and porch paint? How about an oil based floor and porch paint? On the glue you mentioned, are we talking something like titebond 3 (waterproof)

**gary baigent**

August 2, 2014

I have a couple of wing masted tri foilers, 11 and 8 metres square, length and beam, one is over 40 years old, the other launched a couple of years ago – and both are 4 and 3mm marine ply with 6 oz epoxy glass plus uni directional carbon in high load areas, 2 pot paint finishing. They are lasting well yet have suffered (already for the newer boat) hard lives. Both are in high tensioned thin ply – because you cannot bend 6 and 8mm stuff to get the curves I want; the strength and stiffness of the lighter ply comes from the bending – as any Gougeon reader will know, and the extra higher tech outside and inside laminations add extra stiffness and protection.

Okay go to 8mm for flat plane and chine designs ... but you end up with a heavier, slower response, slower accelerating boat. Have a light platform, (the 8 metre weighs 230 kgs) sail area can be less, loads are less, speed is greater, fun is higher. Works for me. Cheers.

**Shayne Young**

August 3, 2014

This design was originally as a float upgrade for a Buc24 in Auckland NZ (Capricorn). Impressed how well the 4mm ply construction held up, I was reluctant to change it, but I did upping the spec to 6mm with a 200gsm cloth over lay. Samples proved to be quite bullet proof for this application. (For boats that carry more than 1 person the glass cover should never be less than 200gsm with additional taping on keel areas)

Having designed the floats I thought well why not do a main hull as well, and out came the Road Rash.

It must be realised that multihulls and in particular FAST multihulls are extremely sensitive to weight! Increasing weight will slow the boat drastically, increase righting moment, thus excessively loading rigging. Over weight multis usually lose there rigs early.

Cheers Shayne (Road Rash designer :)

**Small Tri Guy**

August 3, 2014

Hey ... great to meet you Shayne. We'd love to hear more about what you have to say about smaller trimarans!

**Small Tri Guy**

August 3, 2014

Hi Gary,

The conversation I've been having here with Stefano is very interesting to me in relation to very small boats (like canoes and kayaks). Although I also appreciate what he has to say about the possibilities of building larger boats that are a lot less inexpensive, even though they're slightly heavier.

The extremely light wood/epoxy techniques developed by the Gougeon brothers are amazing. Jim Brown has told me a few stories about some of the things they've built that are incredibly light, yet amazingly strong. Racing boats (built in wood/epoxy) and other multihulls constructed with emphasis towards speed can still learn a lot from what those West System folks are continuing to do in Michigan.

**Shayne Young**

August 3, 2014

Hi Small Tri Guy,

I'm a big fan of fast boats that don't need winches or 20 people to sail them!!!! So small tris fit in to my preferred boat list, along with skiff's, beach cat's and sports boats.

Popularity of sub 8m multis, particular tri's really gained a lot of momentum after the DoG AC in 2010. Interestingly the 7.5m tri that I based on the Buc24 upgrade, designed in 2008, had a massive amount of interest around this time. This interest spurred on the simplifying of the design to the Road Rash.

There were 2 styles of boat I was looking to put the Road Rash into, 1. the camper/caravan style with accommodation ie Farrier designs, 2. the day boat/racer ie ORMA60. The dayboat/racer appealed to me with this boat due to my back ground in racing and the fact there was nothing like this at the time. This project turned into a great "what path do I go down" study. Comparing build materials, build methods, sailing performance, rig options etc.. I found that the 7-7.5m tri was right on the threshold of a lot of choices. This made the options a lot more open, but also more difficult as to what one to choose?

Coming from a career in building/designing and racing carbon fibre boats it was the path I wanted to take, but the simplicity of my mates ply Buc24 I was sailing had a huge effect on my thinking!!!! So I thought how fast can I make a small tri with the lowest possible technology and materials.

This led to full on hull shape studies for Hard chine shapes, Centre of Buoyancy shifts for small boat with large crew weight percentages etc etc...

Cheers Shayne

**stefano**

August 6, 2014

Sorry for late answers... I'm on vacation and no internet:-)

For Tom: PU is Linear Poly Urethane 2 part paint no porch stuff (i ignore being in Italy what stuff that is)

Glue: I buy Saratoga or Bison. They both are marine use graded ( testing is D4, you cannot get better description than the standard to which it is produced). It is one part and yellowish. Very effective also on humid surfaces (porous).

Gary Baigent: indeed if construction is up to Gougeon standards, surfaces are compounded and you have "inner and outer lamination", you're ok ( i am willing to bet these boats are stored inside though...).

Keep into the picture all the work that is needed to achieve these results. That makes a hell of a lot of fun LESS to me ... matter of choices though.

For Small Tri guy: engineering is crucial when you put masts and outriggers on a small boat as a kayak. This should be close to a bulkhead, well supported by a beam or mast partner, sufficiently flexible mounts to take shock loads, and loads should be small enough to allow safety margins. The story of the CLC tri rig, modified 4 times should confirm my words... Yet, a kayak is not built to stand the wave impact at speed loads, (dynamic) engineering calculations there become sophisticated. I like to be in the safety side when I venture out at sea for medium long range trips. My double kayak, 22 ft, has 2 masts, but short. 44 sq ft sail in total, and in a 10 knots breeze does 4.5 knots. I am satisfied with it.

I am happy to learn that the designer of the 7.4 metre trimaran advocates at least 200 grams / square metre cloth ... we converge on this at least.

People speaking much in favor of very light boats should screw a permanent notice on their boats: "not made for overweight crew".

I can make a kayak 15 pounds lighter, or a 17 ft little tri even 40 pounds lighter...but if a friend that is 250 pounds steps on board, I want the boat to still be fun, and not to continuously advise the person in question on how he steps on board, moves on the benches or else. And beware: Italy has less obesity problems than the US does...

In other words: I privilege: sturdiness, safety, lower cost and labour, 360° use over:

extreme lightweight, "performance" and sophisticated materials and costly building procedures... (read: speed, if carrying friends FOR A DAILY TRIP is your idea of performance, you need a weight carrier different boat).

A very accurate planning of what the use will be, a design clear statement, will put things in order ahead of building time.

My next trimaran is on the drawing board for 400 kgs trailing weight, 800 kgs maximum displacement, max 6 people on daily cruises, 4 on weekends, 3 on extended cruises. Speed range between 8 and lower teens, with a very fractionable sailing rig, a SA/displ ratio of 30 upwind ( sq metre/tonnes), 56 downwind. Fun, safe cruising, food on board, space for resting, sun bathing, fishing, and a sheltered pilot house. My idea of fun... with others :-)

**Greg**

August 7, 2014

( i am willing to bet these boats are stored inside though...).

Stefano you would lose that bet. Garys boats are not only stored outside but built outside as well. The most recent one is described here..<http://smalltrimarans.com/blog/?p=9136> and

<http://www.boatdesign.net/forums/multihulls/alternative-marvelous-buccaneer-24-a-32382-50.html>

**Small Tri Guy**

August 7, 2014

Thanks for the additional info Shayne!

**stefano**

August 8, 2014

For Greg... Ok then I shall pay my debt...

as for building outside, The Gougeon Bros. certainly do not advocate it. We spoke so much about their epoxy building I thought we could share also teh original thoughts: 5th edition... a great bonus for anybody willing to get sticky fingers , other than the Rolling Stones :-)

<http://www.westsystem.com/ss/assets/HowTo-Publications/GougeonBook%20061205.pdf>

**Chris Ross**

August 12, 2014

Shayne Young,

I love this design! Could you talk about the rig? Is it possible for the builder to build a wing mast? What is a realistic budget to build this boat?

**Shayne Young**

August 13, 2014

Hi Chris,

I'm glad you like the design. The rig is left very open on this design, with recommended dimensions. The reason for this is people have very different options available to them. Most of the main sail dimensions are similar to an 18ft skiff, intension to use old mains. The jib is similar to a lot of OD sports boats like the Magic 25, T750 etc. Again spinnakers would be from sports boats.

The mast its self can be built from ply and carbon, but buying carbon oval sections from C-Tech is far better option. 90% of the time it works out cheaper as well than trying to build your own mast section. I'm all for building your own wing, and have done so in the past and found buying a carbon tube a better option.

Also don't think a wing section must be used!!! I built many rotating round section rigs for NZ8.5m cats and a 9m Granger with great results. What we lost in aerodynamic



2/15/23, 7:38 PM

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efficiencies we certainly made up for in simplicity, control and reliability!!!!!!

I have a BOM but can't see how to attach it in this forum

# An Hour of Personal Sailing Instruction from Richard Woods

August 7, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Duckworks, Port Arkansas plyWooden Boat Festival, Richard Woods, Sail Oklahoma

No Comments

# Slingshot 16 Trimaran Interview with Frank Smoot (mp3 Audio)

August 15, 2014

Categories: Small Tri Info - All, Small Trimaran Audios

Tags: diy-tris.com, Frank Smoot, slingshot 16 trimaran

## Comments

**Tom**

August 16, 2014

Love that Frank is willing to break the rules and experiment. Admits that not all his designs work and tells you when one does work. Uses El Cheapo 1/8 inch plywood, so he can afford to try different approaches. This guy is like a natural born Einstein of trimarans.

**Jens Wellejus**

August 3, 2017

A recent video of Frank Smoots Slingshot trimaran:

<https://www.youtube.com/watch?v=yaCg4e-FVes>

# New Tryst Trimaran Under Sail

August 21, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Arkansas plywood boat festival, Richard Woods, Sail Oklahoma, Tryst Trimaran

No Comments

# What's It Like Getting Boat Hardware from Duckworks?

August 21, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Chuck Leinweber, Duckworks

## Comments

### **Richard Woods**

August 21, 2014

I also buy as much as I can from Duckworks. A small family business who really look after their customers. Highly recommended. Disclaimer, Duckworks also sell my trimaran plans, but I buy more from them than I get back in royalty payments!

Richard Woods

### **Edward Burns**

February 9, 2015

I have not had any problems with my orders with Duckworks orders as yet, but with USPS within the last few years I have lost 2 or 3 thousand dollars in missing or Miss-sent products! I would recommend that you register and request a return receipt for what you order.

It is too bad that USPS has gotten to this situation by hiring people that are nothing but thieves, because USPS personnel managers are incompetent, too lazy, or they do not want to spend money to investigate the background of the people that apply for jobs!

Maybe its because of lack of funds because of the 1 million or there-a bouts paid to the USPS CEO!

Ed Burns

Duckworks customer

### **Doug Westover**

October 5, 2015

Duckworks is without doubt the finest business I have ever dealt with. Period.

They will go above and beyond duty to help you.

Chuck and the crew know their stuff and many times I have spent way too much time on the phone trying to sort stuff out but The Team always patiently helps me...

thanks Duckworks!

will be using you exclusively on my next build.

### **henry marciano**

May 15, 2019

The North Providence School District's Marine Trades Program located in North Providence, Rhode Island along with my non- profit City Sail Inc. purchase a lot of materials and hardware from Duckworks. Chuck and his crew do a fabulous job of getting our orders on time , with no hitches, and at very reasonable prices. This is a great company that knows how to serve its customers very well. Hats off to Duckworks!

Henry Marciano -Founder of North Providence Marine Trades Program and Director of City Sail Inc.

# Windrider Signs Deal to Sell Astus Trimarans in the US

September 3, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Astus trimarans, Windrider, Windrider Trimarans

No Comments

# More Best Guess Trimaran Updates

September 10, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Best Guess Trimaran

## Comments

**Stefano**

September 12, 2014

Great job Jim... very innovative and informative. I went to your blog and checked out on all pics but could see nothing as for the new amas sections... could you add some pics or narrative to this end ? What volume are they presently ?

What is the sail surface when you reach over 15 knots ? And what wind speed to get there?

Thanks in advance, Stefano

**Jim Gallant**

September 15, 2014

Stefano,

I just added what pics I have of constructing the amas. Not sure of their volume, but I'd guess about 3 times that of the Hobie 14 amas.

In its current state the max speed I've achieved is 12 knots. Don't know the sail area. My new sails are Ebay scores. I cut a huge jib down in size for my jib too, so I don't have any specs on sail area.

**Stefano**

September 16, 2014

Hi Jim,

thanks for the informative post and reply. I assume from the ama pics that they have a narrow flat bottom section as opposed to a pure "V", more or less just like the main hull... Correct?. I love the ladder solution. Can you expand also on this one ?

**Stefano**

September 16, 2014

From Jim's webpage :

"I didn't take account for the heavier weight of the "new" Best Guess after I added 3 feet in length, a longer ladder plus a trolling motor and marine battery. As a result it sat lower in the water, and my amas also both sat in the water. Also the tails of the amas were lower than their bows. Traditional multihull wisdom says that one ama should always be out of the water, so I had to raise the amas and change their pitch. This meant drilling new mounting pin holes lower down in their bulkheads and then cutting off the excess bulkhead at the top. Here's how much I shortened them by."

Another thing that also happened to me and you do not seem to have taken into account, is that by lifting the amas, in the purpose of not having both amas in the water at the same time, the main hull draft increases.

This changes dramatically the resistance of the main hull which loses it's attitude towards "skimming" the surface and getting hydrodynamic lift from the flat bottom, and on the contrary has to push through the water and increases resistance. At least this is what happened to my hull. I am restoring the 2 feet I took away from the hull ( silly move really) and making some effort to reduce rig weight and make amas bigger so they also take part in the displacement at speed.

# Working Model for the TRIX 12 Trimaran Design

September 19, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Self-built trimaran, small trimaran, Trix trimaran, wood trimaran

## Comments

**walter monici**

September 20, 2014

Dear Alan,

now the next step is to define the project also based on the availability of material.

This supplier in Hungary has panels of okoume plywood for marine use of 2500×1220 mm. in thicknesses 4,6,8,10,12, 15, 18 and beyond.

The goal of my projects is to be very simple, easy to build and cheap.

To build the boat we need 3 panels 6 mm for the central hull and 2 panels 4 mm for the floaters not having the 5mm.

We will use all the trimmings to build all the parts, benches, reinforcements, etc.

The thickness 6 is ideal for the hull while available.

Will also serve strips of fir wood, preferably spruce, good quality knotless thickness 10-15 mm x 30-50 mm or more. length of 4 meters.

Having to use the 6 mm thick we could even think to stretch a little the boat up to 13 feet, 385 to 396.5, in order to have a capacity of 4 people and have the right spacing between the benches that are now a bit 'tight.

The cost is always the same because we would use the same three panels to build the central hull while the floaters remain the same.

However, increases the weight.

Only for the central hull I had expected about 30 kg. for trix12' and 35kg. for the13 ' in the thickness of 5 mm.

With the 6 mm. the 12ft will weigh 35kg. and 13' will reach 40.

With a range of 240 and 280 kg respectively.

40 kg are many to put on the roof of a car, but if you use a trolley are not a problem.

I will try to make another model of 13 feet using precisely the three panels available, if it's possible.

I will make drawings of this model so that you can do it again and understand it.

We can do it again and again until we are fully convinced and sure,

After this the construction will take a little time because the boat is very simple.

I have not designed stowage spaces for several reasons: Simplicity of construction, avoid trouble spots that can't be coated well or are filled with moisture, maintaining the concept of uniform elasticity of the hull, freedom of use of the inner space.

I have understood that sometimes reinforcing or wrong stiffness produce cracks and delamination.

It's my design concept: what is elastic bends but does not break.

I left my boat for two years under an open shed near here in milan where the humidity is 100% and temperatures have reached - 7.

The biggest problem for me are the stagnant moisture:

I had put a tarp over the boat but this had made ??things worse because they formed in molds.

Then in the summer I left the boat on the beach. In Sardinia the strong wind that swept the sand had completely cleaned from paint some parts of the hull.

My advice is to hospitalize the boat in a closed environment, no matter if unheated, slightly raised from the ground on two strips of wood in a normal position, not upside down. with all its accessories inside but allowing air to circulate.

For the painting should give 3 coats of epoxy paint, the first very diluted, and go inside at the end, with the 400 grit sandpaper to prevent slipping when the epoxy paint is wet, so it buy a good grip.

You must also decide the sail or find a rig ready like those of the 12-foot dinghy or a laser, and adapt the design to what you have found.

If we look at a rudder of a hobie-cat or the like that go up alone against an obstacle, is the better.

The first thing is to find a supplier of lumber, plywood okoume waterproof, and know the size of the panels. without these measures I can not do a real project.

Cheers Walter

**Tony Watermann**

March 8, 2018

Hi Walter, this boat has strikingly similar design concepts to my little Bazooka tri. The overall concept of use, the asymmetrical amas, the most location and fixing method, the transportation objectives etc etc.

The Bazooka is rated to 220kg loading and is a very robust fibreglass design which is easily repairable.

I would dearly love to make a boat with similar features and function to my Bazooka but with more traditional Polynesian lines like your earlier Trix design.

If you have progressed this design then please give us an update.



# John Marples Talks About Trailering Boats (mp3 audio)

September 25, 2014

Categories: Small Tri Info - All, Small Trimaran Audios

Tags: boat trailering, how to trailer a boat, John Marples, trailerable multihull

## Comments

**jay**

March 29, 2020

can you tell me what your group considers a small trimaran? i'm retired and looking in the next few years cruising for several months at a time: intercostal waterway and even ocean crossing. i have my eye on the kurt hughes 32' cruiser.

thanks

jay

**Small Tri Guy**

March 29, 2020

Hi Jay,

The tagline for this site is "The online community for enthusiasts of trailerable (and cartopable) trimarans".

# Hobie Plus Canoe Conversion to Trimaran

October 7, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: canoe to trimaran, canoe with outriggers, outrigger canoe

## Comments

**Tran Trung Nghia**

March 3, 2017

I need to see her flying in heavy sea to know if it's sail well or not

**Stu J**

October 24, 2017

I've dreamed of making something like this for a long time! I'd love to see more pics & videos of sailing in a bit more wind.

How does it handle in 10-15knots?

What would you do differently next time? (If you could have any parts)

It looks like you attached both rudders to the stern of the canoe, is that correct? Why not just use 1? or was one the 420 and the other from the Hobie to determine which handled better?

Are you planning to glass over the top of the canoe to make more water tight storage?

# A-Cat Hull Used for Trimaran

October 9, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: A Cat beach catamaran, Chris Ostlind, small trimaran

## Comments

**Tom**

October 9, 2014

The crossbeams look like they are flat beams, probably strengthened with carbon and or E glass, plus, if you look carefully, it looks like a 2 inch tube or pipe attached for strength.

Also, notice that he has gone to a sit inside design, with possibly foot pedal steering, like Frank Smoot's, which I think is so much more intuitive and leaves your hands free for lines and sheets. Not sure how he reefs the sail though.

**Robin Bennett**

October 9, 2014

Looks like ordinary slab reefing on that sail. There's a halyard and big blue patches between the first two battens. Presumably it's stiff enough to be rolled without ties in the middle of the sail.

My thought was that if it sails as fast as it looks, it'll be very wet!

Robin

**Owen McKenzie**

October 10, 2014

I think it's a great idea. A class catamarans are a fast moving development class so there will be plenty of outdated (for the class) hulls available over the coming years to play around with.

**Chris Ostlind**

October 10, 2014

Hi folks...

Just a few comments to more fully describe the boat in build right now. This is a project that I am doing with Mike Leneman, of Multimarine in Venice, CA. Most of what you see here is a product of Mike's design aesthetic. He's the one who came up with the idea to make use of a single A-Class Cat hull for the center hull of a trimaran.

Mike picked up the A-Cat hull from Pete Melvin, of the America's Cup design team of Morelli-Melvin. Pete is a former A-Class World Champion and had a set of hulls in storage that were not going to be incorporated into any finished boat, as they had been pretty much obsoleted due to changes in the class.

From the outset, the boat was going to be a peddle (Mirage drive) machine combined with a sail rig for when the wind was pumping. Mike asked me to design the amas to aesthetically work with the A-Cat hull and provide a lightweight, solution to previous forms that had been used on the previous design. I suggested that the hulls should be asymmetric in form to eliminate the need for a leeboard/daggerboard. This solution is meant to save overall weight and reduce the number of fixture parts on the boat, simplifying the setup/takedown time, as well.

The weight of the A-Cat hull, which is a carbon foam sandwich layup, is 40 pounds. The amas are foam and 3 mm marine ply and come in at 12 pounds a piece. The cross beam is a honeycomb and carbon item and I have not weight it, but I would guess that it's in the five pound neighborhood. The carbon mast is from a 29er race boat and right now, it is sporting a 56 sq. ft. sail for testing purposes. The final, reefable sail will probably be in the 80-100 sq. ft. region for light air power and tunable for conditions.

I have already designed a complete boat to be built in marine ply and glass for homebuilders, as there is already a demand from the incidental folks who have seen the existing prototype and want one of their own. I'll send some renderings of the new homebuilder version in the next few days so that Joe can post them on the site, along with a description of the layout and features.

**daryl Tempest**

February 15, 2015

Hi

do you have the building plans for the homebuilder for the A-Cat hull and Amas etc? It looks very sleek. Are they available to purchase yet|?

Many thanks

Daryl Tempest

# Michael Storer Talks Outriggers

October 13, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: ama, amas, Michael Storer, outrigger, outriggers

## Comments

**Aaron**

November 3, 2014

What type of trimaran design is that in the second image? (Black hull free standing ketch). Thanks!

**Small Tri Guy**

November 3, 2014

I am not sure Aaron, although it does look similar to (perhaps inspired by?) the the "Osprey" outrigger sailing canoe design by Solway Dory –

[http://www.solwaydory.co.uk/?page\\_id=36](http://www.solwaydory.co.uk/?page_id=36)

**Michael Storer**

November 10, 2014

Thankyou hugely for the little article and link. Glad you found the article usefully informative. That's the most a writer could want :)

As far as identifying the trimaran. I know the chap turns up with different iterations as he develops the tri. I will try and find out who it is

Michael Storer

**Small Tri Guy**

November 10, 2014

Great to hear from you Michael. Readers should know that your boat building plans are very detailed. I bought plans for the Oz Racer MKII –

<http://www.duckworksbbbs.com/plans/storer/ozracer/index.htm> ... in order to get the included pdf on how to make one's own sails from polytarp — it's terrific.

# Skin On Frame Trimaran Anyone?

October 17, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: skin on frame boats, skin on frame outrigger canoe, skin on frame trimaran

## Comments

**Robin Bennett**

October 18, 2014

It's an interesting idea, but I suspect that part of the reason that it's so tough is that the kayak is so light and flexible (which is OK because it's not going very fast).

I'm sure you could put a small sail and some amas on that kayak and it would sail nicely, but if you wanted to carry two people at beach-cat speeds you'd probably have to stiffen the frame to the point where it's as heavy as a ply boat.

That said, it looks like a great option for a small, light boat.

**Small Tri Guy**

October 18, 2014

I agree with you completely Robin. That is currently the one question I have about building a SOF as a double outrigger. As you already know, a multihull's platform always wants to twist, so stiffness of the structure is a very important issue. The single outrigger featured in the first picture above (found at <http://www.capefalconkayak.com/outriggersailingcanoes.html>) uses several seats down the length of the vaka, which also serve as "spreaders" and "stiffeners" in the center hull. I'd think this sort of reinforcement all along gunwale would be even more important for a double outrigger. If that's true then the question becomes, "how much" reinforcement?

**Robin Bennett**

October 19, 2014

There's no reason a SOF design couldn't be stiff in torsion, you could put the frames in diagonally:

[http://en.wikipedia.org/wiki/Vickers\\_Wellington#mediaviewer/File:Wellingtons\\_under\\_construction\\_WWII\\_IWM\\_CH\\_5980.jpg](http://en.wikipedia.org/wiki/Vickers_Wellington#mediaviewer/File:Wellingtons_under_construction_WWII_IWM_CH_5980.jpg)

**Small Tri Guy**

October 19, 2014

Great pic Robin!

That is one cool photo.

My wheels are turning :-)

**Scott F.**

October 20, 2014

I've been building up to trying to design a SOF voyaging canoe by building regular skin on frame canoes for exactly the reasons you give, they're lightweight, strong, cheap and fast to build.

This link to a 1960's era 'foldable water vehicle' got me started and makes my head spin: <http://www.faltbootbasteln.de/fbb-falkatamaran-scalare.html> It's in German, but the pictures speak volumes.

I want one. :)

**ian**

October 20, 2014

Hi everyone,

It's also known as "fuselage" construction, with lots of applicable solutions available from aircraft design to do whatever you want, if you can engineer it right.

One issue with fast tris and typical SOF materials is the deformation of the skin at speed...which for a very light fast tri might behave something like a fabric covered aircraft pushed almost to the sound barrier, fluid friction-wise...the skin will deform and flap and eventually tear apart as more and more power is applied...sort of like a traditional inflatable but with a frame limiting the skin's elasticity and adding tear points.

You can mitigate that with added reinforcement, but one caveat is that making a skin totally rigid using epoxy and glass and all that just focuses the stresses in other areas and you end up with a rigid boat built on a plug that just happened to be SOF...could be great, but not every shape will be ideal and you can lose the weight advantage quickly.

Of all the true SOF boats I've seen that might make good small tri hulls with some modifications, I like these the best.-

"What is Geodesic Airolite Construction? It is a simple, inexpensive, low-tech, forgiving system utilizing some exotic materials. The sequence consists of building a simple rugged wood framework, braced with triangulated KEVLAR® roving strands. This tough basket-like frame is then covered with Dacron. This is a first cousin to sail cloth; except it heat shrinks. It is a super-weight, airplane wing covering type of fabric, used on crop dusters.

Obviously Dacron covered boats are not bullet proof...they must be treated with some respect, but not pampered. This is a tough, resilient material that will take quite a beating from rocks and snags; however it cuts fairly easily with a sharp object like a broken bottle. This has proved to be no problem. Carry some Duct tape and DON'T WORRY!"

<http://www.gaboats.com/construction/>

they'd certainly need some extra beef and engineering to make them multi's but it could be as simple as adding some bulkheads and bracing and perhaps some rigging to keep it all square with the crossarms and amas...think of it more like a kite or old biplane or a tent using stressed members and built-in tension to hold it in alignment but allow it to be flexible enough to stay ultra light and use minimal sail area to minimize the loads. The structure and skin \*will\* flex, you just have to design around it and not overload it with crew or power or leverage from amas.

This seems like a good candidate for a nice little mini cruiser main hull-

<http://www.gaboats.com/boats/snowshoetraveler18.html>

one consideration is that one of the biggest benefits of SOF is high weight carrying capacity, that may or may not all be usable in a trimaran adaptation... if you make the canoe above into a tri you won't be able to load it up with 600 lbs of gear like you could if it were a monohull, without risking the whole thing to racking stresses or jarring overloads when you catch an ama or get smacked by a wave off the beam.

The key imo would be to make it as much as possible like a leaf or styrofoam cup that sits on the water and not so much in it, that barely needs any wind to move it and will just float over chop...the hull weights for some of those boats are comparable to CF if not better so staying ultra light seems like the way to go.

There's also some really nice modern adaptations of traditional kayak designs that use aluminum tube and plate and high tech rubberized fabrics, with George Dyson's boat's being some of the best. This one isn't so small at 48', but it's a skin on frame tri-

"The Mount Fairweather went through several iterations of sails and outrigger designs, including a pair of 28-foot-long Polynesian-style amas which transformed the kayak into a trimaran, or proa of sorts. For a time, it was fitted with deck platforms and a hexagonal tent allowing George and crew to, as he wrote on page 122, "spend days in comfort without ever going ashore." "

<http://www.chargelife.com/necessary-expeditionpart-ii/>

This page has a ton of amazing pictures and ideas too from design basics to coverings to folding SOF designs, with a lot of Dyson influence-

<http://robroy.dyndns.info/baidarka/slideshow/node-a90.html>

FWIW, you can also do hybrids of chine and tortured ply construction with SOF to make hard planing surfaces on the bottom-

<http://gaboats.com/boats/blivit13.html>

and in SE Asia they make bias-woven bamboo mat skin boats that have solid topsides and beautifully elliptical membrane-like bilges that may not even need any additional framing-

<http://www.boatsandrice.com/wovenBamboo.html>

#### **pausanias**

October 20, 2014

Do folding (i.e., skin-on-frame) kayaks with outriggers count?

Balogh Sail Designs (BSD) has been offering them for years:

<http://www.balogsaildesigns.com/rigsFolding.html>

Folding kayak makers that offer them include Folbot and Long Haul:

[http://store.folbot.com/category\\_s/1893.htm](http://store.folbot.com/category_s/1893.htm)

<http://longhaulfoldingkayaks.com/wordpress2/>

#### **Robert**

October 20, 2014

I contacted the folks at Cape Falcon Kayaks; their boat is pictured in the first picture. They were not enthusiastic about SOF construction for a sailing outrigger or trimaran for the reasons already stated. They made the boat pictured, but don't think they saw any future for it. I would think that small boats might work out fine, with a modest sail (like Dave Gentry's outrigger canoe), but scaling up might be a challenge and negate the benefits of SOF. Robert

#### **Small Tri Guy**

October 20, 2014

Hi Pausanias,

Great links. Yes, kayaks with outriggers are certainly welcomed as small tris here :-)

Thanks for sharing those links. Wonderful boats and rigs. I don't recall seeing these boats before.

What I'm thinking mostly about in this post, however, is a sailing tri design specifically intended for use as a sailing boat.

#### **Small Tri Guy**

October 20, 2014

Ian,

Super info. Terrific links!

#### **Small Tri Guy**

October 20, 2014

Hi Robert,

I myself just received a short email from Brian (at Cape Falcon Kayaks). I asked him about the outrigger sailing canoe they built and he replied, "It won't work. There is no

clean way to attach a rigid form of thrust to a semi flexible design."

I am now very much inclined to agree with you ... that it might work out fine for a smaller boat. But even a somewhat larger boat (even one the size of a Tamanu for instance - <http://smalltrimarans.com/blog/?p=6140>) probably won't work.

A sailing kayak? Yes. A true sailing canoe or larger daysailing trimaran ... with lots of ama volume? Probably not. For that, either ply or fiberglass ... or kevlar, if very very light weight is a high priority - <http://smalltrimarans.com/blog/?p=2901>

**ian**

October 20, 2014

The stubby pontoon-like amas and the low volume 2x4 ama on the "Splinter" proa are both good approaches to some of the the twisting/racking problems of a SOF tri as the hulls move independently in waves...but for sailing the long skinny ama seems best; just keep the ends low volume. I also notice most of the successful SOF multis tend to stay narrower overall which would help alleviate the leverage problem of the amas and crossarms prying the boat apart.

The other thing about ultra light boats is that they don't have the hull weight in the ends that helps dampen pitching motions, so what weight is there has to be distributed more carefully and/or on the fly like riding a surfboard. The long heavy 2x4 style ama could help stabilize the ride of a SOF main hull and dampen pitching overall.

This SOF tri looks pretty nicely built but seems to have some weight and SA balance issues that get worse at speed...probably fixable (maybe he just needed to reef or sit farther aft) but this type of fine kayak/canoe hull just doesn't have a lot of spare freeboard to begin with and when it's this light you can drive the thing past hull speed pretty quickly even with a fairly conservative rig-

<http://www.youtube.com/watch?v=SbjZ2FIEHTA>

You can also see in that clip when the wind and boat speed comes up how the stern doesn't have any weight holding it down as the rig tries to overtake the sinking bow... the effect of inertia is different than on a boat with heavier ends and instead of just squatting lower in the water while tracking straight when overpressed, the hull pivots stern up and will keep sailing that way unless you literally hold it down with added ballast or alter the sail trim radically.

It's another area where SOF boats can act like inflatables because they are so light for their volume.

**ian**

October 20, 2014

Found another pic of Dyson's giant baidarka rigged as a tri-

[http://www.danielleen.org/gallery/v/bc\\_coast/cr002.jpg.html](http://www.danielleen.org/gallery/v/bc_coast/cr002.jpg.html)

and a better version of the pic at a previous link, with some background text-

<http://www.westcoastpaddler.com/community/download/file.php?id=5687&sid=e7c8e527096122871a2edb8c31360e6f&mode=view>

So it's definitely do-able even at that size, but the overall geometry and rig has to accommodate the limitations of the construction, and you won't be able to rely on wide beam or high volume amas so much for initial stability or holding up a tall powerful rig.

**Stefano**

October 21, 2014

hello to all...

will not step into discussion for lack of time but here in Italy, 450 grams /sqm pvc polyester skin cost about the same as exterior grade 4 mm okume plywood... You spare epoxy and paint that is true, but skin on frame structures rely on skin mechanical properties, so the tougher the better...

**Small Tri Guy**

October 22, 2014

Hi Stefano,

The skin used on the SOF boats featured in this article is primarily "ballistic nylon". I am not sure what the price for it would be in Italy. It's amazing stuff. Relatively inexpensive here in the US and Canada (as compared to a lot of other products used for marine applications).

**Jeff Horton**

October 27, 2014

I have played with this idea quite a bit. I actually have a design pretty well finished. I have realized I started out too large and need to start with a small boat to learn the ins and outs. I design and build fuselage frame kayaks and started looking at adapting one to sailing. Quickly scrapped that for one designed specific for the purpose.

There are limitations I am sure, especially the faster you go. Frame rigidity could be an issue but there are ways to stiffen a frame. Main thing that concerned me was the mast. Stays create issues of stress on the frame. Unstayed masts require strong frames. I do think it is very doable but I do not have the time to pursue it. There are other things that I need to focus on but this is still very much on my list.

**Small Tri Guy**

October 27, 2014

Hi Jeff,

Thanks very much for your input. Appreciate all of your insights. Very much appreciated. I've been to your website recently too. Really neat!

**Lenny**

November 6, 2014

I think some inspiration for the frame can be taken from inflatable catamarans like the ducky13. their frames hold up to high speeds quite well, and can be used for stays if that is what you after.

I built a sof proa based on Gary Dierking's Ulua. It was the fastest thing I have ever paddled.

That yellow proa shown above is quite impressive. It's rig is low stress as i remember.

#### **Guy**

January 1, 2015

You might need to step away from the rigid aspects that go along with rigid trimarans and create a boat that likes to flex at speed, its well documented that proas had far more flex than modern boats and the hulls made from stitched peices of wood were sewn in a pattern, not randomly, this made the hulls flex predictably, maybe even made them faster, traditional pacific and SE asian sails might be more appropriate for a SOF tri, If you can put a man on the moon or build a proa from driftwood and string on a desert island then you can make a SOF tri.

#### **Peter Jorgensen**

January 17, 2015

I made a trimaran similar to this.

LOA: 15'11"

Weight: 100 lbs assembled.

Currently undergoing major refit changes(rig and trampoline/crossbars)

Here are two pictures:

[https://scontent-b-ord.xx.fbcdn.net/hphotos-xap1/v/t1.0-9/10513262\\_836635229708354\\_31310838498705693\\_n.jpg?oh=2f0f4971f955e7e3a51a2338c5165152&oe=55208BCA](https://scontent-b-ord.xx.fbcdn.net/hphotos-xap1/v/t1.0-9/10513262_836635229708354_31310838498705693_n.jpg?oh=2f0f4971f955e7e3a51a2338c5165152&oe=55208BCA)

[https://fbcdn-sphotos-a-a.akamaihd.net/hphotos-ak-xpa1/v/t1.0-9/1922259\\_723283091043569\\_904610427\\_n.jpg?oh=a51fd3151af435c33af052cb1d02cf4d&oe=55615511&\\_\\_gda\\_\\_=1428622178\\_6852d271b82c519822a114d76cf139c2](https://fbcdn-sphotos-a-a.akamaihd.net/hphotos-ak-xpa1/v/t1.0-9/1922259_723283091043569_904610427_n.jpg?oh=a51fd3151af435c33af052cb1d02cf4d&oe=55615511&__gda__=1428622178_6852d271b82c519822a114d76cf139c2)

and a Video:

<https://www.youtube.com/watch?v=SbjZ2FIEHTA>

#### **Small Tri Guy**

January 17, 2015

Hi Peter,

I saw your video on youtube. Thanks for also sharing pictures.

#### **Jeff Horton**

January 19, 2015

Interesting this would come back up now. I have been looking at my old design and actually started work on it again. Watching Peters video was interesting. One thing I decided on was a higher volume boat and seeing yours taking waves over the bow convinces me that is a good idea.

I am leaning toward 15-16 OAL main hull. That is a manageable size to start with. It will be more rigid and should still have a good turn of speed. Enough to be fun and of course I can learn the ins and outs from it. I am thinking of a cockpit set up similar to what Frank Smoot is doing. I like the simplicity of no tramps and foot steering. And if I find I hate it, it wouldn't be hard to retrofit with a tiller and gunwale seating. Doubleender hull shape to maximize waterline.

Trying to decide what type of sail I want to use. I am really interested in a free standing mast for simplicity and would like to use wood so it could be shop made. I want to avoid stays because makes the design much simpler and faster to rig. So I need lower sail which also means less leverage on the hull. I would welcome any ideas here. Hull design is no problem but I picking a rig leaves me with as many questions as answers.

#### **Small Tri Guy**

January 19, 2015

Hi Jeff,

I just picked up a very light, short (14-ft tall) windsurfer mast AND sail for \$50 on Craigslist. It was made around 1990, but was just laying on a shelf, nicely wrapped up in the seller's basement for years, so everything is in great shape. For that price, I just couldn't pass it up. I am planning on using it as the "heavy wind" rig on a plywood outrigger sailing canoe. Gary Dierking is a big fan of using old Windsurfer rigs on his sailing canoes. It's hard to imagine something simpler, faster to set up, or more efficient for your needs. Just a thought.

#### **Jeff Horton**

January 19, 2015

Very interesting thought too! First impression is they might be a bit small but even it is, it would be a very efficient sail and less likely to break something. I did some windsurfing years ago and the more I think about it the more I like this idea.

#### **Small Tri Guy**

January 19, 2015

I don't think it'll be too small. Have you seen the video of Gary Dierking's 20-foot outrigger canoe sailing very nicely with a small triangular sail? –

<http://outriggersailingcanoes.blogspot.com/2010/07/tamanu-sailing-in-fiji.html>

His Sprit sail for this boat, which fits on the short mast, is smallish too (for heavy wind).

You can always go with a larger mast and sail (if you want) but I doubt you'll regret starting out with a more conservative rig. As you said, "less likely to break something."

#### **Small Tri Guy**

January 19, 2015

Jeff,

Here are a couple of short posts by Gary about Sprit rigs:

<http://outriggersailingcanoes.blogspot.com/2009/04/sprit-rig.html>



<http://outriggersailingcanoes.blogspot.com/2009/10/sail-power.html>

Aside from quick reefing, the other big benefit is it only requires a short mast.

Just thought you might like to see these posts on Gary's blog.

**Jeff Horton**

January 20, 2015

Appreciate the links. A Sprit sail had been on my list as a possibility. It seems to be a good solution and polysails are very reasonable and repeatable if you want to build more than one boat.

I have a lot going this spring what with shows and classes. Probably can't get serious about building till at least summer but I can work on the design and work out some details. But this is moving up to the top of my list.

**Small Tri Guy**

January 20, 2015

All the best to you in your build Jeff. I hope you share it with us when you finish it.

**Peter Jorgensen**

January 20, 2015

Jeff, I designed it with wavepiercing in mind, and so it has very little buoyancy up front. The coaming fence works perfectly. That one time on the video is the only time I've ever gotten wet from waves in front. It was a huge wake from a big ski-boat, in the middle of a steep afternoon chop. I'm very happy with the main hull, and will be focusing all my attention on the Amas and sail, which both leave a lot to be desired.

Here is another video of the main hull handling some rougher conditions; again, not a lot of speed due to the horrible sail.

<https://www.youtube.com/watch?v=MN0xedXlgZ0>

Also, from my experience, unstayed rigs on a SOF boat are a bad idea. My trimaran has a lot of flex, especially torsion between the front and rear cross-beams. I worry about concentrating all the load on the frame. I feel much more comfortable with an unstayed mast step, with stays (so support from both the mast step and the shrouds/stay.) That being said, if you do enough reinforcement, I think you could pull it off, especially with a light-weight mast and smaller sail like a windsurfing rig, just make sure you distribute the stresses very well to the longitudinal members, and don't skimp too much on it. It also helps a LOT to ground test the rigging on the lawn or something like that, sails and all.

One last note: Beware of swamping. It's very easy to swamp a SOF boat. Just keep that in mind, and have a little hand pump. Good luck! -Pete

# A Fast Little Tri On An Economical Budget

October 23, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Bernd Kohler, Little Tri

## Comments

### Robert

October 23, 2014

Very nice looking boat. Most small DIY tris seem to use a leeboard on a pivot, but I noticed you use a daggerboard that seems to slide into an external trunk. I like its simplicity. Can you comment on this aspect of the design? Robert

### Stefano

October 24, 2014

Hello!

Wellcome the excellent designer Bernd Kohler... I love his approaches...

Love his modern gaff concept ( not here but he could post some on it)

love the rudder here, the self bailing cockpit, the rough but very effective trampolines idea (already stolen Bernd !), the positive floatation

I am less convinced of the one (one is it ?) position of the leeboard. I'd rather have two...

and epoxyed attachment of amas... I think they would be better served by through-hull mechanical fastenings such as threaded rod.

One last thing... I've been in touch with Bernd to buy the gaff plans, but found it difficult...

Is it any easier ? anything that can be bought with a credit card ?

Thanks in advance and cheers for little tri !

### Small Tri Guy

October 24, 2014

Hi Stefano,

Check out how Gary Dierking attached the PVC amas to his outrigger sailing canoe here - <http://outriggersailingcanoes.blogspot.com/2008/04/pvc-amas.html>

I like his approach a little better.

Can't comment on the buying process at Bernd's website. But I do know that Chuck (at Duckworks) is a great resource for the full plans, should someone want them. The customer support at Duckworks is always great.

### Bernd

October 25, 2014

Hi there, I normally do not comment to blogs on my designs. But there are exceptions of the rule.

In a high aspect ratio hull one dagger board, even a lee/luv board that it is, is normal. On each side one would not improve sailing performance. The sliding board can be trimmed also back and forward to alter the CP. I could trim the board so that the boat holds its course. The mounting pieces on the ama/aka connection is the lightest possible solution. Important is to have a layer of glass cloth where the pieces are glued to the amas.

To order Little Tri plans click on the words and you on the order page which leads direct to Paypal.

### Stefano

October 26, 2014

Hello Bernd,

just bought the plans and they are very neat and cheap for the boat this is. I also appreciated the "almost NACA" rudder and daggerboard construction and the capability to trim it in the case. I just hope the case construction is strong enough when the board is not on the lee side but will be pulling away from the hull.

All in all I recommend these plans and boat to all that want a car-toppable capable small trimaran. Bernd has also a very interesting version of gunter rig and wishbone gaff, check on his site...

Cheers to Bernd ! , Stefano

### Gene Gillis

October 1, 2015

Just purchased the little tri plans and can hardly wait to get a start. Not sure I like the leeboard box on the side, looks weak to me and may hit the sail. but will follow the plans before trying to modify anything. I live in south , Louisiana close to the Texas line and thought plywood wouldn't be hard to get, but I can't find okume without shipping and man the price. I'd like to see some more of these built in the states and a large discussion on every aspect of the boat. Where do you guys find the aluminum pipe at? I will be building it on a small budget. My only gripe so far is the plans are in Metric and I will have to figure that out. Maybe he'll make us some in imperial so the build is easier in America. Keep sailing guys.

### Small Tri Guy

October 1, 2015

Hi Gene,

Thanks for sharing! Here are a few thoughts:

- 1) Ask some local wood/builder supply stores if they ave any "luan made with waterproof glue." It's a little heavier than okume but a lot cheaper and just as good for building a daysailer such as Little Tri.
- 2) As a local welder about where to get the metal piping? All of the welders will know where to source the metal locally for the best price.
- 3) Invest in a good metric tape measure (you can get one pretty inexpensively on Amazon). You'll be glad you did.

**Bernd**

October 1, 2015

I have designed Little Tri. Thanks for buying the plans. I think Chuck from Duckworks was addressing me about imperial conversion. I know it is a psychologic problem. But metric is easy. You use it anyway every day! Your money system is metric. In 1 dollar has 100 cent etc.

Before you start building get a member of the very active K-designs forum. It is a restricted forum for plans owners. There you can find a lot of information concerning the construction of Little Tri. The video of the Tri with the Junk rig is built near you as far as I understand.

Do not change anything. Because it is a proven design. I addressed the concern about the lee board case already. Send me an email and you will get the amendment.

Cheers

Bernd

**Gene Gillis**

October 1, 2015

Mr.Bernd, and others, Thanks for the info. I wasn't aware you had the K-designs forum. I will join up. You are very thoughtful offering your knowledge. The more I study your design, the more I like it. Thanks for the info that gets me going in the right direction. Yes I found the guys junkrig boat and I am checking out his videos. You guys alright!

# Skin On Frame Trimaran – Boat Ads From the 1930s

October 27, 2014

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: skin on frame boat, skin on frame kayak, skin on frame outrigger canoe, skin on frame trimaran

No Comments

# Seaclipper 16 Trimaran for Sale in New Jersey

October 30, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, Seaclipper 16 trimaran

No Comments

# How to Build Rudders or Dagger Boards

October 30, 2014

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Bernd Kohler, how to make daggerboard, how to make rudder, Little Tri

## Comments

**Joe**

October 31, 2014

Thanks for shearing with us Bernd

Best wishes

Joe

**Small Tri Guy**

October 31, 2014

One reader of our site sent me a link to an article at Kurt Hughes' multihull blog that critiques this article by Bernd. Kurt's article can be found at:

<http://multihullblog.com/2014/10/more-stuff-done-wrong-3/>

With respect to this critique of his article, Bernd simply replied with a short comment: "All aircraft wings have the main spar at about 30% of their chord because the most load is there. All aircraft designers cannot be wrong. I've built rudders and boards with this system for 34 years without any failure."

**Joe**

October 31, 2014

As someone working in the aerospace industry for many years, I am 100% with Bernd.

All the classic NACA (and others) profiles the main load is at 33%, you move it forward to around 30% to get better stability.

Best wishes

Joe

**ian**

November 1, 2014

I think any sensible person would understand implicitly that this build method was never suggested as a universal solution for all applications, that could be scaled to any size without modification or material substitutions.

Bernd's illustration specifically mentions adding another spar at 60% of the chord on larger foils, and also specifies that the main spar be placed at 30%...but the "critique" blows right past all of this to claim-

"In this how-to, there is a lumber spar down the center. And he adds carbon to it. But it is at the centroid of the foil. That is where material contributes the least to structure of any place on the foil. So they put the carbon fiber where it is least useful. Stuff done wrong."

Then he doubles down on this straw man in the comments-

"Do you dispute the mass of material being at the centroid where it is doing the least work?"

Yes, I do- because it was NEVER suggested that the spar be placed at the geometric center of the foil's chord, no matter how many times someone famous says that it was.

"Stuff done wrong", indeed.

**Stefano**

November 1, 2014

Thanks Bernd.

When I compare this method to others - many - that I read (designers omitted)

I can only comment with one word:

"Priceless" ... for all the rest, pull out your credit card - or cash - and lots of patience...

**Stefano**

November 11, 2014

I read some of the "things done wrong" of another trimaran designer claiming these foils are insufficient in structure.

Well, in real world experience I happened to have a chance at looking broken rudders and daggerboards from Hobies, 470 international, Lasers... they had been abused for years in regattas and were actually built with just a thin layer of PFR skin over a foam core, two halves joined as clam valves.

Bernd puts much thicker epoxy and ply wood in the outer skin and a substantial beam with carbon fiber between the two halves. Then all is wrapped with fiberglass in epoxy, not just matched around the perimeter and glued along that line...

I know nothing about engineering calculations (or very little), but it is quite obvious it is going to be much stronger than commercial production. This should be enough for most of the folks here and the "oceans" they will be crossing...

my 4 cents...

**Joe**

November 11, 2014

Agree 100% with Stefano. Had same experience in the past with 420, Laser and "Mini Sail"

Joe

**ian**

November 11, 2014

Stefano's comment reminds me-

The first boat I did any building on (when I was 14) was an 8' dinghy hull converted to sail, where we bought existing FRP foils and a molded sleeve daggerboard trunk from a total character named Sidney Blinder who developed the all glass non-leeboard Sidney Sabot in Marina Del Rey in the late 60's...a hot rodded 8' racing punt, if such a thing exists.

anyway, after cutting the hole and shoving the wax paper wrapped board into the trunk to hold its shape and help with alignment, I glassed the trunk all in, but good... filled the whole molded keel area with mish-mash since the boat was a tender that would be dragged ashore, dialed in the alignment one last time, and left it to cure.

Came back later and it was perfection, until I tried to pull the board out...it slid perfectly out of its slot until the end of the board hit the hull and I learned that unlike the rest of the hollow board made in the clamshell style, the butt end of the board didn't squish to conform to the shape of the now solidly fixed trunk's bottom hole that was \*just\* slightly smaller than the board's tip...whoops.

No problem- got out the saw, whacked the daggerboard's lower end off, pulled the board out, saw that it was completely hollow, decided it could use some pour foam, added it and set it aside to cure, ground the tip down to fit the trunk openings, did some more so it could drop straight through, glassed it back onto the board, feathered the joint...and then spent the next few hours flattening the rest of the entire length of the now \*just\* slightly puffed up board so it could fit back though the trunk, using lots of weight, mold wax and square-peg-in-a-round-hole style pounding to slightly crush the foam and allow the board to go back into the proper shape.

Now \*that\* is how you do stuff wrong.

The board never gave a lick of trouble after that, and I actually got compliments from people who sailed the boat afterwards over the whisper quiet, Swiss watch-like precision of the board/trunk fit, so snug that it could be set in any position and it would stay there without any need for locking hardware or cords...an amazing feat for such a young and inexperienced builder's first try ;)

**Stefano**

November 13, 2014

Hi Ian... I really love the small account on how experience is gained.. made me smile throughout because even mishaps and failures when done light heartedly and are part of our past now can make us smile... what would the world be like if we had it all done right the first time!? What a boring place ! ;-)

"The board never gave a lick of trouble after that"

Wanted more of it ?? :-)

**Alexandre**

October 10, 2016

Thank You for sharing your excelent idea. I have used other methods to build a retractable rudder for my 28ft boat but this method is simple and fast.

**Dan**

October 31, 2016

I believe that the critique is of the carbon being used on the inside of the foil instead of on the outer skin where it would take more of the bending stresses. Maybe he didn't get his point across or maybe I have no idea either... I'm building a dagger board but will be putting carbon on the outer skin, not the spar.

**Elliot**

October 20, 2019

Really like the simplicity of this. What about filling with an epoxy pour foam for extra stiffness and strength for large foils.

Anybody work with this? <https://www.compositesworld.com/products/pro-set-two-part-expanding-epoxy-foam>

**Small Tri Guy**

October 20, 2019

Elliot, that may be a good idea for the larger foils. Have never used any expanding foam though.

**Michael Burgin**

May 17, 2022

I'm looking at building a rudder for a 25ft trailer sailer. Most methods involve a massive amount of expense in materials or heavier wood construction.

I'm wondering if this method would work in this scenario? would this rudder construction be of sufficient strength, and would a foam poured core add to this. I.E cap the bottom of the rudder an then pour, cap it off on the top side once it's gone off?

Is there anything else that could be recommended for additional strength?

**Small Tri Guy**

May 17, 2022

It's a great question Michael. I don't see why not. But I think a good answer involves knowing the size/measurements of the rudder in question, along with reasons why it can handle the physical stresses that will be exerted upon it. Paying for a consultation with a reputable boat designer who fully understands these issues might be a worthwhile investment.

**Michael O'Dwyer**

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

May 25, 2022

Hi Small Tri Guy, I have successfully built a dagger board for my dinghy using your method of construction. I also added a few extra details, mainly carbon fibre reinforced edges .

Details of the build can be found on the wooden boat forum website if anyone is interested.

It is in the building/repair section titled "The believed abstraction of a twelve foot clinker dinghy". I am just about to start on the rudder, which has a thickness to chord ratio of 15%.

I included a link to this website in my posts as there were a number of people interested in this method of construction. Thank you for sharing your ideas.

Cheers,

Mike.



# One Of a Kind Trimaran Named VOLTAIR

November 4, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: voltair trimaran

No Comments

# Modern Outrigger Canoes Without Epoxy

November 7, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: build boat without epoxy, epoxy encapsulation, Gary Dierking, outrigger canoe, Outrigger Sailing Canoes, Tamanu, Wa'apa

## Comments

**ian**

November 7, 2014

There's two different questions here- building with or without using epoxy glue, and the idea of totally encapsulating the boat to keep water out.

The former has been done with plywood of course, and how long it lasts really just a matter of how much ongoing care and maintenance you want to do. For most people the added expense and coating work up front pays better dividends, so if you don't like painting the modern coatings are probably even more worth the hassle.

Finished wooden boat interiors are one of the most tedious painting tasks imaginable regardless of the coating...and any penetrating material designed to keep water out is best applied to the parts prior to assembly so that all edges are sealed and there's no bare wood for water to migrate into if a joint cracks.

So do as much of the coating/penetrating as can be done prior to assembly and you'll save a bunch of headaches later in the build and over the life of the boat. Keep this material as thin as possible and cure/dry it as slowly as you can for maximum penetration...slather it on everywhere until it can take no more, especially in places you'll never see again when it's built.

Epoxy may be a bit easier to deal with in this regard than a water based product, since water based paint can interfere with glue and sealant bonds even after it is bone dry...but you can plan for it and prepping individual joints for adhesion is usually just a matter of scuffing them up if you have the material thinned out properly. Using some ammonia instead of all water can help with penetration and will promote drying without warping and raising of the grain.

The key is that when you are penetrating for waterproofing you don't want the material to create a film that covers surface like saran wrap or a coat of paint- which is my idea of "encapsulation"- you want it to be drawn deep into the wood pores by capillary action so that the pathway for future water migration is blocked by saturation with the waterproof material that soaks in and cures \*in\* the wood, not on it.

If you do that to every part and panel before putting it together, the life expectancy of anything plywood will be greatly increased even if it's just some thinned out house paint...but the idea is to saturate the wood like a sponge that can't soak up any more liquid, not to wrap it in plastic that holds water in.

FWIW, I've used a lot of this paint over the last few years in high traffic areas, at the beach, in bad sun and weather exposure areas, etc. and am pretty amazed at how well it holds up- there's some on the ferrule of one of my brushes that hasn't come off in about 8 years of use including wire brushing in hot soapy water- I wouldn't hesitate to use it on a boat project like you describe or to thin it and saturate parts prior to assembly-

<http://www.homedepot.com/p/BEHR-Premium-Plus-1-gal-Ultra-Pure-White-Semi-Gloss-Zero-VOC-Interior-Paint-305001/202761530?N=5yc1vZbbbgZ1z10m17>

It also sticks very tenaciously to fabric and would make a great doping material for a skin on frame boat or for a traditional canvas deck...it's very tough but stays supple and doesn't crack.

Not the cheapest house paint but it performs as well as a lot of specialty paints that cost twice as much or more, and well suited to the level of thinning (around 30-50%) we're talking about for a penetrating sealer.

**Small Tri Guy**

November 8, 2014

Hi Ian,

Very much appreciated ... especially the BEHR paint recommendation! I've read similar recommendations for that type of paint from other guys with boats. They say the paint has held up very well (many years).

Especially noteworthy is your advice about trying to avoid the "saran wrap" effect that "keeps water in" as opposed to simply keeping water out of the wood's pores.

**Stefano**

November 9, 2014

Just a couple thoughts about painting or encapsulation.

To allow paint or epoxy deep in the pores, I heat the surface (read: lay it in the summer sun) then paint rapidly with thinned epoxy or other primer, and immediately put in the shade (about 10 °Celsius difference. The heated air is cooled off from wetting the surface and from being put in the shade. Air that has expanded retracts rapidly and sucks in any liquid in the wood fiber.

I do this on cut-out and flat surfaces, then I allow (if epoxy) until it "greens" and then lay another coat wet on wet. It turns out a glossy finish without drippings and waste.

For Ian... reading the BEHR advert I thought "Hey, great news for such CHEAP stuff!" ... you obviously pay for chemical stuff much less than we do here...

Non marine 2 part PU is paid (cheap) 32 euro per quarter over here... Get the idea ? ;-)

bye, Stefano

**ian**

November 11, 2014

One other aspect of the wood and epoxy coating issue that may contribute to problems with water retention and rot is when hulls originally designed for more traditional construction in the pre-plastics (maybe even pre-plywood) days are built using modern glues and sealant materials without any alterations to the structural parts to account for the difference between the old and new materials suited to that traditional construction...

even with the best saturation methods and materials being used, something like a 2"x2" chine log or keelson that is a fairly large piece of solid timber that sees a lot of water exposure and banging around in a smaller open boat may still end up as a piece of mostly raw and absorbent wood with a thin layer of saturated material encapsulating it, that can still be pierced allowing water to enter it and never really get back out entirely- which could be far worse than a painted or even uncoated piece of wood in the long run.

The same part built up using saturated laminations can eliminate this problem, or can at least provide multiple barriers to further water intrusion when dinged by something like a dropped anchor or winch handle. Even just capping an exposed solid member with a single thin strip of wood that can be more thoroughly pre-saturated on all sides will effectively triple the amount of epoxy saturated layers that must be punctured to make a channel into the mass of raw wood.

Modern hulls designed specifically for ply on frame construction will often have smaller framing members that take advantage of the inherent strength of the ply sheathing, that naturally lessen the volume of solid wood that can take on water and can exploit the benefits of epoxy saturation better... but some chined hull designs have been adapted from planked construction that was never really intended to stay dry and actually \*needed\* to swell up with water to seal, that also needed to constantly breathe through the interior side of the planks.

Just replacing the planks with plywood on the same larger framing will certainly eliminate that need to swell up, but maybe not the need to breathe in the manner that traditional paints and sealants allow, especially when there's movement that can open up cracks in those coatings at critical joints.

I think many failed epoxy coated wooden boats fall into this category; especially in the DIY realm a hull design may have gone from planked to plywood to outer glass sheathing to full encapsulation without ever being completely adapted to the very different conditions involved in keeping each type of hull alive. It may have worked great going from planks to plywood or even glass over ply with little or no framing adaptation, but full encapsulation in space age plastics may be a step too far unless you approach it like a composite boat from the start.

#### **Small Tri Guy**

November 11, 2014

Some excellent points here. I often wonder if certain boatbuilding practices are now taken for granted because the way things were done in the past were displaced by modern practices simply because they are "modern."

**ian**

November 11, 2014

Oh, definitely...not just building practices, but modern maintenance practices too... which can often contribute even more to any vessel's longevity and especially lack of it than construction methods and materials.

In my youth I spent many years working and crewing on "ancient mariner" type wooden boats where there was no choice but to do things traditionally and so something like my old glass/epoxy on ply Cross was a maintenance dream- but even though I could slack off on maintenance by comparison I still treated it more like a wooden boat than an FRP one when it came to rot prevention, bedding deck fixtures, etc. and most of the restoration it needed when I got it was as a result of previous owners doing the opposite because they simply didn't know any better.

One perfect example is that in the days of yore, nobody used fresh water dockside hoses to wash wooden boats down with...when that modern ability came along and became taken for granted it may have seemed "better" for the ability to liberally apply water that left no residue and to do it more frequently with less effort, but the resulting dry rot hastened the demise of many a wooden and glass on ply boat that sat at a slip most of the time looking all spiffy.

Those ancient mariner boats in general are kind of a 'use it or lose it' affair, especially when they are in the half century + age range, and that use and attention was simply accepted as what you needed to do to keep one worth having...just the act of going aboard and checking things more regularly meant better ventilation and quicker discovery of rot and corrosion type problems that still cropped up anyway, which is why they were still sailing at that age.

You took them out, something broke, or a seam opened up and you addressed it NOW, or else...if too many topside seams were opening up, you took it out more often to keep things tight. Boats that were allowed to sit too long unused often never came back, and counterintuitively, the damage from being stored and ignored while out of the water for that duration was often far worse.

Many modern boats and materials are promoted to people with modern lifestyles as "better" for not needing the same level of ongoing use/maintenance to keep them viable and it's mostly true and a welcome benefit, but that doesn't necessarily mean an identical reduction in general attention and less stringent practices regarding rot and corrosion and associated ventilation won't have serious repercussions.

#### **Stefano**

November 18, 2014

A friend of mine just saved from fire a beautifully built cold molded ( with red glue) wooden "gozzo" fishing skiff in Italy.

It had been poorly maintained but the bilge had been saturated with led orange paint, white lead paint as a primer inside the boat and in the hull below the water, and then varnish in the external topsides and white enamel (alchidic) on the interior.

Mahogany plies and structural members were unblemished after scraping the boat to bare wood. He wanted to go with epoxy. I had to insist to convince him that the evidence was that the previous treatment had worked fine for over 40 years, and changing would be a bad move.

The bottomline is that copper and lead with salt water over high grade wood and resin rich woods are still hard to beat to contrast rot ( fungi) in wooden boats.

Tin, lead and other paint components have been now banned for amateur building but remain available for some commercial uses. as a marine biologist I wonder if all in all, scraping a couple quarts the boat every 40 years is so much of an impact on the environment, if compared to renewing the more modern paints maybe every 5-6 years (LPU or epoxy based)

**Seabeau**

November 26, 2014

A wood biologist has found that regular automotive antifreeze is very, very good at preventing rot in the insides of wooden hulls. Just pour it in and let it soak up.

**Small Tri Guy**

November 26, 2014

Hi Seabeau,

Seriously? We want some more info on this :-)

**Small Tri Guy**

November 26, 2014

More info about antifreeze killing rot...

<http://www.simplicityboats.com/chemorot.html>

<http://www.acbs-bslol.com/gadgets/d97woodrot.htm>

# Slingshot 19 Trimaran Building Plans Now On Deck

November 12, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: diy-tris.com, Frank Smooth, Slingshot 19 Trimaran

## Comments

### **Stefano**

November 13, 2014

I would like to point out that, thanks to Frank and co-designer Andrew, the study plans for this tri are made available (for the time being) for free. For all DIY folks this is an opportunity to actually evaluate the quality of the plans and some innovative and intriguing approaches to foldability in small trimarans as well.

Thanks again to both of them.

### **Tom**

November 16, 2014

These plans appear to be even better than the slingshot 16, which are really good already. Be carefull about getting the study plans. It will give you boat fever. Make you want to stop other projects that are underway and start a slingshot 19. So much to like here. The plans as drawn by Andrew Walters are top notch, and area step above all the other plans I have purchased. They are so good that even a newbie builder will almost instantly understand what needs to be done and in what order. Plus this rig can accommodate so many different types of sail rigs. Way cool !!!

# Owner Designed-Built Trimaran in the Netherlands

November 20, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: small trimaran in Netherlands

## Comments

**Seabeau**

November 26, 2014

great boat

**ian**

November 26, 2014

It's a very nicely proportioned design that manages to have a classic sailboat look without sticking to traditional forms...

what jumps out at me is the fact that in both the main hull and amas, once the maximum beam is achieved that width appears to run \*dead\* straight all the way to the transom(s), at least in plan view.

People are conditioned to see this as "wrong" for a sailboat hull shape but imho I think a lot of that is based on monohull sailboat design, where a ballasted hull's underwater shape when heeled and firmly in displacement mode is usually a major consideration that affects its final form and favors tapered ends.

But even in monohulls, from a theoretical performance perspective straight runs are the ideal and everything else is a compromise of some sort...the shortest distance between two points is always a straight line.

There's other practical reasons for using fine ends and canoe shapes, but if you consider the upright/flat stance and speed potential of the trimaran platform there's a lot to be said for this more powerboat-like full width transom approach to hull shapes as well.

It would be interesting to hear how much of this shape was determined by those kinds of considerations, and how much was for simplicity's sake...either way it proves that hulls containing straight lines can still appear graceful.

**John Nieboer**

November 30, 2014

Hi Ian,

Thanks for your comments!

I am used to design semi planing and full planing commercial boats and used that hull shape as an input for the trimaran. What I am looking for is a safe boat with good sea keeping for moderate speed. Therefore the hulls have an almost continuous deep v bottom, not ideal for speed but it pay off in waves.

Towards the aft end the keel line is going upwards, providing some planing area but also a small transom for low resistance at semi-planing.

# Dalliance Micro-Cruising Trimaran for Sale

November 20, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Dalliance trimaran, trimaran for sale

## Comments

**Glenn**

November 29, 2014

I am interested in this boat! Is it still available ?

**Small Tri Guy**

November 29, 2014

Hi Glenn,

Contact Ron using the contact form (above) ... it will go directly to his email address and he can answer any questions about the boat.

# Slue Foot Sue Double Outrigger Sailing Canoe

November 26, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: canoe trimaran, double outrigger canoe, sailing canoe

## Comments

### Stefano

November 27, 2014

Pretty nice approach... I love the flaps idea and would appreciate some more on them and construction as they seem to be quite effective ( in the FB video the lift is clearly visible).

As for the boat some steady pictures might illustrate the transformation better than a head-mounted camera... we get to see much interesting nature but very little detail or even general views of the transformed canoe itself.

The rig transformation seems clever and efficient too and the mast seems not to be a windsurf mast bending under traction, but a straight aluminum one and this would be another interesting point on which to expand.

Thanks in advance, Stefano

### Small Tri Guy

November 27, 2014

Hi Stefano,

Were you able to see all of the photos on Jim's Facebook pages? Lots of pics there that expand on many of the boat's features. Although you still may want to see more :-)

### Robin Bennett

November 27, 2014

Wow, so many new ideas, and all so neatly made!

What's the brown board in front of the bow in the foiling video?

Did you try mounting the windsurfer amas on edge?

I've not seen a shallow V foil before, only deeper, surface piercing V or flat – what is the purpose of the various different shapes?

> This empirical design approach taught me a great deal about both sailing, and the engineering that wind demands and/or won't put up with.

I'd be interested to read that.

### Stefano

November 28, 2014

The front leeboard is actually a correction to a misplaced centre of lateral resistance, or – if you prefer – too much sail up front, so that the location of the centre of effort of the sail, is way too forward.

The front board should be able to correct this, as well as a mast brought back a foot or more or twin boards slid forward. On stronger winds, the centre of the sail slides backwards, and makes the lee tendency even stronger.

Ideally, the centre of the combined sail area should be about 4% of boat length ahead of centre of lateral resistance ( combined board, hull and rudder).

I'm pretty sure that with no jib the boat is balanced...

### Robert

November 28, 2014

I'd love to be able to use a light-weight kevlar racing canoe as a vaka, but the low freeboard has always seemed to be the problem. I presume the foils are designed to give some lift to the hull and mitigate the low freeboard. It is an interesting use of a windsurfer for amas.

### Small Tri Guy

November 28, 2014

I am wondering myself about various (practical) ways to handle the lower freeboard of an outrigger canoe such as this one. Perhaps specially fitted lightweight (tarp?) decking atop certain sections of the vaka ... combined with some self-built bulkheads to create these various sections (which would be covered by the decking). I'd love to hear some thoughts from others on this issue.

### ian

November 29, 2014

Robert-

for adapting narrow ultra low freeboard donor hulls like olympic style canoes and kayaks, surf skis, unlimited paddleboards, rowing shells and the sort you'll most likely need to build in some extra clearance for the akas anyway, so incorporating that into a raised cockpit section can kill two birds with one stone.

I like the idea of sort of grafting on the basic upside down "bathtub" shape used to create cockpits in tunnel boats and hydroplanes-

<http://www.dillon-racing.com/EZTunnel/plans.htm>



-and then the resulting space could either be used for a sit-in cockpit, or if you wanted a more traditional seating scheme the whole tub could act as a footwell with cockpit seating and tramps extending along and out from the top edge along with the akas, like a typical tube aka setup on a main hull with high freeboard.

If you built the tub in plywood/glass it wouldn't be much different than any other hull with akas bolted onto it as far as framing and engineering the loads goes- it would be kind of like another boat, really- and for ultra light applications you could also use a skin on frame approach to create the water resistant envelope, over a minimal space frame that followed the same type of shape and dimensions...much like a dodger but on a far more rigid frame that incorporated the akas.

The raised aka framing on this boat is as close to what I'm talking about as I've seen, but you wouldn't necessarily need the curved akas-

<http://www.fordak.ru/data/gallery/181/full/1187027636.jpg>

- imagine the fabric seats stretching from that long outer tube to another parallel one running between the two upright posts on each side, like a pipe berth...the vertical areas along the sides and front/back could then be filled with skirting or fixed panels to box it in and make a dry footwell...then the whole assembly could sit on top of a very narrow low freeboard hull and get that cockpit lip up off the water along with the akas.

Joe-

All of those ideas are good ones for dealing with spray and other shipped water and used billboard tarps would be a great material to repurpose for that kind of decking and spray skirting.

But I'd also be looking to spray deflecting strakes/rails at the bow(s) of the hull(s) proper and either a small extended deck at the forward gunwhales or a similar forward tramp/spray skirt to keep as much shipped water off and out of the boat as possible to begin with.

This seems like a really nice retrofit solution for the hull itself-

<http://www.thesmartrail.com/>

[http://www.thesmartrail.com/images/with\\_rail/rail-demo.jpg](http://www.thesmartrail.com/images/with_rail/rail-demo.jpg)

You could DIY it as well, but the angles do need to be pretty precise or you might just make more spray...but properly sized and placed these kinds of strakes can also add lifting area that can help to even out the ride and keep you from driving through waves as you push a long narrow hull with a high deadrise bow faster.

**Stefano**

November 29, 2014

Small tri guy

If the canoe is kevlar or fiberglass:

- 1) you way want to add an additional "plank" to raise the freeboard. A narrow strip of 3/8 inch plywood and fiberglass+epoxy would do the trick
- 2) add seats or "terraces" over the added plank around to stiffen the hull while providing sitting area athwatrship and deflecting down heavy spray
- 3) Put much buoyancy in the amas thus contributing to keep the vaka hull from lowering the leeward rail.

But do you really need to do so? Trimaran kayaks are really low in freeboard... I would guess this canoe has at least one foot fb when charged...

**Small Tri Guy**

November 29, 2014

Guys,

Great info! Terrific ... and much appreciated.

**Jim Stuart**

December 3, 2014

The freeboard is not a problem. This 17'6" Mad River Revelation Canoe is 15"+ deep. I ship a little water; ...pump it out occasionally. It's worse with another person up front, but still manageable. When I run the front hydrofoil it definitely runs drier. BTW, the stern hydrofoil isn't needed; ...just adds drag to overcome. With the front hydrofoil installed the boat rides much higher, faster, and she is more maneuverable; ...it's a Hobie equalizer. The bow board helps with keeping the lightweight bow pointed into the wind. I borrowed that idea from Sven Yrvind, who uses them on his micro yachts to sail around Cape Horn.

<http://www.sailmagazine.com/profiles/skippering-smallest-boat-around-world>

I'm happy with this version of Slue Foot Sue. This set up lets me sail \*and\* paddle all day; ...it's a fun workout. I'm sure that there are many potential improvements, but will leave those experimentations to others. Hope you found something in here to stimulate a few brain cells. :-)

**Small Tri Guy**

December 3, 2014

Great info Jim. I listened to an interview with Sven Yrvind about 2 years ago on FurledSails ... great stuff and an amazing fellow!

<http://furledsails.com/article.php3?article=726> and <http://furledsails.com/article.php3?article=727>

**Small Tri Guy**

December 3, 2014

Jim also sent me the link to an interesting proa. Pretty neat boat. Check it out at [http://www.twisselmann.net/Description\\_English/description\\_english.html](http://www.twisselmann.net/Description_English/description_english.html)

**Jim Stuart**

January 29, 2015

84F on Wednesday at Horseshoe Bay, south winds to 20 mph, and Slue Foot Sue sailed just fantastically all afternoon! She's practically perfect in every way smile emoticon

--

"Whether you never get anywhere at all, you're always busy, and you never do anything in particular." ('Ratty' - on sailing; ...The Wind in the Willows)

<https://vimeo.com/118146369>

**Small Tri Guy**

January 29, 2015

Jim, are you kidding me? 84F in January in Texas? And you're sailing Slue Foot? I am freezing here in NJ right now. Just another example that life isn't always fair :-)

**Jim Stuart**

January 30, 2015

That's why I moved to Horseshoe Bay to watch the dandelions grow.

We get a few really warm days each winter, but this is the first time I've managed to sail in January, and it was great. The winds were steady from the south at 12 mph with frequent (but not violent) gusts up to 20. I sailed for 4 hours and must have covered 25 miles; ...would have stayed out all day, but had an evening engagement to get ready for. The lake section I stayed on was mostly east west and not too wide, so no long fetches and essentially no waves. I could broad reach most of the time, no fighting my way up wind; ...it was glorious; ...one of my best sail outings in years.

I'm originally from the DC area, spending many winters cross country skiing in the mountains of WV, MD, PA; ...so I know the Mid-Atlantic can be arctic some winters. If it makes you feel any better - a cold front is coming through now, and it will be mid-40s and rainy this weekend.

On the other hand; ...this is what I do most Saturdays through the winter, and more often than not the days are sunny, 60F, with water at 72F.

<https://vimeo.com/115910929>

:-) Jim

**Jim Stuart**

January 30, 2015

BTW I'm ruggedizing the front hydrofoil over this winter (Q1-2015), and will do away with the aft foil altogether. The forward lift is enough to give me the added speed and maneuverability I want, and it keeps the freeboard high, the leeboards clear of drag, and my inside hull dry. The aft hydrofoil works, but only at higher and scarrier wind speeds when it isn't fun to sail. At lower speeds it just adds more drag than it's worth. Keeps rigging assembly/time easier as well.

**Small Tri Guy**

January 30, 2015

Thanks for the additional info Jim :-)

I hope to move to Florida in the near future ... but perhaps I may now consider Texas for outrigger canoe sailing instead.

# Plans for Lock Crowther's Kraken & Bunyip Trimarans?

December 4, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: bunyip trimaran, kraken trimaran, Lock Crowther trimaran design

## Comments

### Andrés

December 4, 2014

In the section of multihulls of the forum called boatdesign.net are various threads about Crowther trimarans, including the Kraken 25 and Buccaneer 24. It could be a good place to post a thread about the Kraken 18 or the Bunyip 20.

### Stefano

December 4, 2014

Hello andy... interesting story. If you do track down the plans for bunyip please post something here, I would be very interested.

Thanks, Stefano

### Andy

December 5, 2014

Andres

Yes there is some great information on Boat design.net I have post a bit and been help out loads by forum members.

Stefano

I will certainly update if we have success be great to see a few built.

### Hans Schipper

December 8, 2014

I think I saw a bunyip 20 for sale about half a year ago on " Marktplaats" in Rotterdam (NL) . The seller did not know the name or type of the boat but I recognise the shape of the beams. I'm sorry that I don't have the adress.

This was the link to the advertisement that does not exist anymore

<http://www.marktplaats.nl/a/watersport-en-boten/zeilen-en-zeiltoebehoren/m834198388-catamaran-van-hout.html>

I will tell you when I can get more information.

### Andrew

December 9, 2014

Han

What a fascinating find I managed to get a picture through a google images search red hulls with white decks I think your right either a Bunyip or a kraken 18.

Hope your find more information.

Kind regards Andy

### ian

December 14, 2014

I'm sure Andy has seen this already, but just in case anyone else is interested here's a nicely detailed blog entry describing the extensive rebuild of the original Kraken, with lots of good pictures of the general lines and construction process-

<http://trimaranproject.blogspot.com/p/kraken-25.html>

### Small Tri Guy

December 14, 2014

Great find Ian! Thanks for sharing it.

### ian

December 15, 2014

Thank you Joe for the post- I learned a lot just looking for more stuff.

The black and white pic from the 60's at that link of Kraken flying the main hull is a classic shot that instantly reminded me of a previous post here about a guy who converted a Soling to a tri-

<http://smalltrimarans.com/blog/?p=2144>

The lines of Loch's hulls are very Soling-like in profile, they're just extremely narrowed down and with flatter and straighter runs aft of the beam on the main hull. All fit in with the meter boat influence described, but I'd never made the connection as far as the name and the heavy Scandinavian influence...Soling is a Norwegian design, so it all works.

But when you see the pics of the Kraken main hull upside down at that link, you can see that despite the very traditional long overhang and spoon bow it goes pretty flat and very straight aft of the maximum beam...the transom is very square and boxy and that end of the boat is very much in the planing dinghy racing tradition.

it almost looks like the front half of a canoe twice its length, chopped at the widest and flattest section, and a transom added....I'd love to see an actual lines plan because there appears to be virtually no taper or rocker aft in some of those pics, with the transom being the widest point...maybe it's just lens distortion but regardless that's not a typical meter boat stern of that era at all.

In the original 60's pic with red hulls the boat appears to sit like everything forward of the mast is being cantilevered up by the weight aft rather than it is being supported by its own buoyancy, which goes with the fatter aft sections...all of which helps to launch onto a plane. It's as much influenced by Uffa Fox as it is Scandinavian meter boats.

**ian**

December 15, 2014

I was able to find this scan from the original plan set, posted by the guy doing that restoration-

<http://www.boatdesign.net/forums/attachments/multihulls/36405d1256171736-information-needed-kraken-25-other-kraken-kraken-isometric-projection-plan-.jpg>

-it really shows the minimal taper and square section to the main hull with nearly vertical sides at the transom, and also how far aft the board case and entire rig are along the length of the boat. I'd assume these amas are the ones that were wrecked in a crash and redesigned; interesting that the rig is almost like a cutter with no jib and what would be the staysail is the working jib, that doesn't seem to go much past the ends of the amas.

If you look past the old school bows and the double ended amas it looks for all the world like a scaled down modern maxi tri as far as proportions go, that has had the plumb bows and mainsail roach cut away to a more antique profile.

**Small Tri Guy**

December 15, 2014

Great illustration drawing in the posted jpeg. Adds much detail to the photos.

**Owen McKenzie**

December 17, 2014

Here is a photo of the main and float hull lines from a copy of the original plan.

<https://drive.google.com/file/d/0B8mcSr9F2VV4T0ZUMk1MYWd2Q28/view?usp=sharing>

Cheers,

Owen

**Small Tri Guy**

December 17, 2014

Thanks for sharing that link Owen!

**ian**

December 22, 2014

Thanks Owen for posting that link...it confirms the fact that the Kraken main hull is more like a narrow planing hull than a meter boat once you get past the long spoon bow.

If you take those lines and compress them vertically in a graphics program the result looks very much like a longboard or offshore style paddleboard, just with slightly more rocker in the nose...and if you widen the plan view to more typical monohull length/beam ratios you get something very similar to a modern J-105; the waterlines are almost identical in the bows but are less tapered aft in the tri-

[http://www.angelfire.com/fl4/mft/J\\_105\\_profile\\_and\\_plan\\_views\\_6-7-2014.png](http://www.angelfire.com/fl4/mft/J_105_profile_and_plan_views_6-7-2014.png)

I also ran across this link from the owner of "Trio" (which evidently was a collaboration) that has some nice background info along with a small pic of the original 1959 Bunyip showing radically different amas than the ones Crowther settled on later, with flat bottoms and no discernible stems...like skinny surfboards.

also there's a shot of the boat he created in between the original Bunyip and the Kraken 25 that is again described as less than successful, showing yet another radical departure in ama shapes with very flat sterns that are pinched vertically like the big end of a toothpaste tube, with no transom to speak of, and according to the author an early attempt at using 45° canted daggerboards as lifting foils-

<http://www.reocities.com/howardstephenson/TRIMARANS.html>

One other thing worth noting is that the original Bunyip and the interim cat rigged boat both show very low aspect ratio rigs compared to the later rigs that required trapezes in stiff winds and were no doubt highly influenced by the box rule Kraken was designed to compete under.

# WindRider Launching New RAVE V Hydrofoil Sailing Trimaran

December 9, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Windrider Hydrofoil, Windrider Rave, Windrider RAVE V, windrider trimaran

No Comments

# Windrider Trimaran Sailing (& Camping) on Lake Diefenbaker

December 11, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: camp cruise, Windrider 17, windrider trimaran

No Comments

# Another Bunyip Trimaran Remembered

December 20, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: bunyip trimaran, Lock Crowther

## Comments

**Steven Dillon**

December 25, 2014

As a long time owner of a Crowther Buccaneer 33 and an even longer time admirer of Crowther's designs I really enjoyed this article. As a post script when I bought my first trimaran I passed up a Buccaneer 24 for a Piver nugget because of price savings, a very poor decision even though the Piver was one of a brief production run of professionally built nuggets from a company in Redondo Beach.

**Andy Griffiths**

December 25, 2014

Jean

Amazing article thanks for sharing the memories and pictures.

Cheers Andy

# Canoe Sailing on Lake Powell with Rocky Mountain Safari

December 24, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Lake Powell camping, Lake Powell sailing, outrigger canoe, rocky mountain safari, trimaran canoe

## Comments

**Chris**

December 24, 2014

It doesn't look like there is much wind on Lake Powell. Creative boats though.

**Small Tri Guy**

December 24, 2014

From what I hear, Lake Powell can be a very good place for sailing. This trip, however, didn't offer much in the way of nice breezes.



# Ngalawa Outriggers Regatta in Kenya

December 31, 2014

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Ngalawa outrigger canoes

## Comments

**ian**

January 2, 2015

I agree that it's ultimately a disappointing clip just on length alone, but it's the only one I've found of these boats sailing that wasn't shot from on board during a mostly mellow tourist style sailing trip, that really shows them at speed and gives an objective view of their motion and trim underway.

At first glance they look crude but there's some pretty advanced geometry and construction methods involved in the articulated crossarm connections and in making and attaching the outrigger planks, and the sailing technique isn't simple ...but nobody seems to know much about their history or development and why certain shapes and dimensions are favored or ignored. With all of their advanced concepts and unique style and obvious performance it's kind of astonishing how little information has ever been collected about them in general, let alone from a naval architecture standpoint.

I read elsewhere that part of the idea for the regatta itself is to help preserve the cultural aspects of the event, that was traditionally an annual community response to the return of seasonal tradewinds and was a big deal before the local fishing became motorized and tourism became a driving economic force.

As that happened a lot of the old builder knowledge seems to have been lost and a lot of the existing boats deteriorated, but after seeing the watersports tourism boom there and boardsailing tourists going nuts over the same tradewinds every year some of the locals decided to start sailing the ngalawas again for sport and so that and tourist charters and an increased interest in the traditional culture may help keep the type from going more or less extinct.

**Dutchy**

January 25, 2021

Nice video,

An ancient way, sailing with simple tools and parts, but not bad at all.

Low aspect ratio. But highly efficient considering the low center of sailforce and the uplifting effect of the bow this sail gives, when windspeed suddenly increases. Short rigging time.

On close reach and on close hauled sailing directions they are not that great. This is the main reason why this kind of rigs are not used more nowadays.

# A Peek at the Diam 24 One Design Trimaran

December 31, 2014

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Diam 24, Diam 24 One Design, Diam 24 One Design trimaran

## Comments

**Stefano**

December 31, 2014

Just wanted to add that it has been chosen as the official boat for the Sail Tour de France...

# Building the Trimore 560 Trimaran

January 8, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Trimore 560 trimaran

## Comments

### Stefano

January 8, 2015

Nice job John!! I especially like the sitting room in the self bailing cockpit and the paint job.

Any suggestions for fairing the 280 grams glass fabric? And for the paint ? it looks pretty good in dark blue with a roller !

By the way... the plywood seems ordinary poplar ... is this correct or is it birch?

As for the sail increase I would suggest you try a screecher on pole or gennaker and keep the rest the way it is ... You just add instead of changing everything and risking to put too much strain on the rig with larger main and jib... I speak out of many failures in structure here...

Best luck, Stefano

### Jens

January 8, 2015

Well done.

Very nice looking boat John. I'd like to see more videos of the trimaran once the winter is over :-)

### John Nieboer

January 9, 2015

Thanks Jens and Stefano for your replies.

For fairing the glass fabric: that is a nightmare. I tried several solution in way of thicker epoxy and supplements like cotton and aerosol (glass bubbles). The last one worked the best, I mixed it quit thick, but when applied it can be spread in a thin layer. I did want to avoid too much grinding, my neighbor was already complaining for the long hours I made.

The rigging is taken over from a open sailboat (Eikplast II) and is not strong enough for the higher stability of this trimaran. On the first video Stefano posted the sail is reefed just because of to much bending of the mast. Also the angle of the stay is too low; I need a spreader. So I am thinking of a new mast, with spreader, 0.5m more length, and two furling jibs.

### John Nieboer

January 10, 2015

Stefano,

about the plywood: it is ordinary poplar, meant to be used inside the house. However, I did made a workbench from it that already survived some years outside in the rain without any treatment. It is not high quality, but not very sensitive for water. Combined with the low weight and low price I decided to take the risk. All the plywood is at least one sided covered with glass/epoxy and one side epoxy.

For the paint I used DD-paint, a two component paint. This works very well and protect the epoxy for UV. It cannot be used for under water areas, but for a trailer boat no problem.

Hope this answered your questions?

What are your activities with trimarans at the moment?

John

### Stefano

January 11, 2015

Dear John,

This was a very bold move to use poplar ply. Poplar is very resistant to water and light, but I never dared because of the non waterproof glue. I have tried to track in Europe some larch plywood, for ecological reasons. I did not want to use Okume as it is a tropical forest wood (forget certified tropic wood , for as much as I have learnt in Africa and SE Asia it's all BS.

However I could not track down larch although I know it exists. MAYbe I'll give poplar a try soon with small objects.

Thanks for the news about fairing. I hate the power sanding part, but using heavy glass, it is almost unavoidable. I think next time I will go 240 grams biaxial + 80 Or 120 grams /square metre finishing cloth instead 330 biaxial which is rough. Then I will use "fillite" which is just like microballoons ( glass aerosol) but costs much less and sands well. In order to reduce sanding, I do the putty fairing "wet on wet" before the undercoat is too dry.

What am I doing about tris? I am trying to put on paper somehow my own project for a 6.5 metre trailerable trimaran with a centre cockpit and two cabins and two masts. This is to have separate cabins and one common area in the middle that can be covered with a tent.

I was using a programme: plyboats, very useful. But it runs under DOS!... so now I have to learn something else like "hulls" or Delftship or something for mac possibly... Any suggestions that are not too professional?

bye Stefano

**ian**

January 12, 2015

Hi John and Stefano,

Do either of you know the taxonomic name of the source trees of the plywood in question?

I only ask because besides the usual possibility of common terms not being the same in Europe and the US, there's a couple of dozen species of "poplar" trees (Genus:Populus) and then there's Liriodendron tulipifera, which at least in the US is commonly known as "poplar" or "yellow poplar" (or Tulip Poplar/Tulipwood) but isn't closely related.

It matters because the wood of many of the "true" poplars is generally not thought of as anything you'd want to use for long term structures or outside- commercially it gets used for making paper, match sticks, cheese boxes, pallets, wood wool and other more or less disposable items. It's very light but not very dimensionally stable and has pretty poor rot resistance, and the ply made from it is mostly used as dunnage so it's even more full of voids and funky bits than even the cheapest shop grade plywood... fast growing poplars are particularly susceptible to wind damage that is often hidden in cheap ply.

The "tulip" poplar along with some of the aspens in the Populus genus are a far more stable material that is used in furniture and doors and the like, and while they are still softer and more porous than the preferred boat building woods they would probably work out fine as long as they were sealed up with resin.

Just a heads up for anyone considering this kind of substitution- in a field where common names may mean wildly different things to different people in different places, "poplar" is one of the more generic and unreliable catch-all terms and getting a specific ID is highly recommended in applications where structural integrity matters.

Stefano-

The Carlson "Hulls" program is extremely easy to use for developing chined shapes and if you need more sophisticated shapes the .hul files it generates can be directly imported into Freeship, which is a far more full featured program but not as easy for drawing up shapes from a blank page.

It's not as intuitive as Hulls but it's still fairly easy to figure out, and can be used to re-work the basic chined designs further if you want curved shapes.

It also has the benefit of being able to export designs or parts of them as .obj and .stl files that can then be used in even more advanced graphics/animation programs like virtual reality viewers that let you get inside your design, or to run rapid prototyping and CAM hardware.

FWIW I've never personally taken the leap to actually running a CNC plotter or 3-D printer from the output of either program so I can't speak to how well they do in that regard, but most accounts I've read from people who have are positive, aside from adjusting for the typical glitches and idiosyncrasies that nearly all output devices have... even simple inkjet printers can take some trial and error to get the final product exactly right.

**Stefano**

January 13, 2015

Dear Ian,

hope everything is fine with you. I'll take the occasion to wish you a new year.

Answering your questions: IN Italy the most diffused species are cultivars of Populus alba and an hybrid of Populus x canescens (P. alba x P. tremula) locally called "grey poplar".

I have used such ply only for some home furniture.

You say: It matters because the wood of many of the "true" poplars is generally not thought of as anything you'd want to use for long term structures or outside".

Well, the Mona Lisa was painted on a poplar plank, and it has (with due care) resisted quite a while... There must be some uses which are compatible with a structure built to last maybe 20 years... (small tri).

It's very light but not very dimensionally stable and has pretty poor rot resistance. Ian, shall we speak here of the "rot resistance" of Okume? Universally sold to us as a premium small boat building wood. This is what wiki reports about Okume 8 and British standard insists it should not be used for permanent water immersion... (...) It is a weak wood with low decay resistance, moderate dimensional stability and slightly carcinogenic. The major use of Gaboon is in the manufacture of plywood.

I also noticed that the less oxygen (read epoxy sheating), the worst...

I do not think that poplar falls very distant in rot resistance really.

You say: The ply made from it is mostly used as dunnage so it's even more full of voids and funky bits than even the cheapest shop grade plywood...

Not true here in Italy and I suspect also in Holland...The ply is very consistent, layers are consistent in thickness, which often is not the case with Okume, and I certainly can rate it as being comparable in terms of mechanical strength.

I also ran a small search and found "class 3" glue poplar ply is made now here. Mostly for exterior applications, just like Okume certified CTBX, a french certification for phenolic glued okume for exterior use, the one I have used in years for my kayaks and small tri and still holding up (provided no dirt is let to seep through small cracks).

All this said, I think John has made a rather safe bet for a trailerable boat. As he states, he has put a piece of untreated plywood to stand outside (and man, in Holland it does rain!) and it is still holding fine after several years... I find this reassuring and am tempted now to use class 3 glue poplar that has a good price here in Italy, and

certainly is more environment friendly than Okume. I do not dislike the creamy colour slightly darkening with age either. In a boat it should give a nice luminous interior too.

The only downside is that it comes in smaller sizes, 250 cm being the maximum sheet length against 310 for okume ( 8.33 instead of 10 ft)

Thanks very much for your precious indications on software... I will test them soon.

All the best, Stefano

I hope

**John Nieboer**

January 13, 2015

Hi Stefano and Ian,

I really don't know the origin or naming of the poplar I used. I do know that the strength is not the best property. Working with it, it shows a stable quality and thickness. It is between foam and real plywood. Reinforcements I did with Okume. For the overall strength of the boat I am not worried at all using poplar, for impact it is strong enough but will not compete okume, and for rot it will indeed be more vulnerable. On my worktable outside you see that the poplar over the years a kind of dissolve. Mind that all outside surface is covered with 280 glass, and all chines and keel with 2 or more extra layers (main keel a lot more). This combination seems alright to me.

Thanks for your opinions and remarks, it is an important decision to make starting with the building of such a boat.

john

**ian**

January 14, 2015

Hi again,

Thanks Stefano and John for the response and kind words...

I agree that with proper selection and attention that there's probably nothing to worry about using poplar \*if\* it's a variety that's suitable and is used in the right location and gets sealed up, and in some applications it might be ideal...

Okume is a good example- super dense hardwood ply made with "better" wood may not have the bending characteristics needed for some building techniques, so softer and less rigid wood may be superior for something like extreme tortured ply shapes seen in boat building...and of course cheaper woods tend to be lighter.

my point was more to call attention to the wide range of poplar species and quality range for those who maybe aren't so familiar and are looking for an inexpensive alternative....a lot of poplar is definitely very economical but as John says it's an important decision and selection of not just the right wood species but the best individual pieces is key.

The hybridization Stefano mentions is interesting and no doubt someone is working along those lines to create poplar lumber and veneers that can compete with more expensive materials in rot resistance and so on, but the commercialized growing thing also brings up another factor, which is that modern forestry practice tends towards pushing for fast growth and early harvesting which makes for less than premium lumber that almost always lacks the quality of older growth heart wood that would have been used in the past where quality mattered.

Which also ties into Stefano's comment regarding the marketing of Okume as a premium boat building wood...the same wiki entry also says (emphasis added)-

"In the form known as okoume marine grade plywood, it is considered perhaps the finest construction plywood \*\*\*now available\*\*\* for boats especially where lighter weight is needed..."

- like it or not wood products in general have undergone a huge shift over the last few decades over environmental and sustainability concerns, which has led to the types of fast growing species selection and harvesting procedures mentioned above- as well as making the use of truly optimal non-farmed hardwood varieties cost prohibitive or downright impossible in some cases, and not just for boat building.

Point being that even with hybridization almost all commercially farmed lumber can be counted on to not be as good as what was available decades ago, and what varieties are deemed "premium" are coming out of a smaller pool of choices.

Taking it full circle, the need to substitute lesser known species for rare/protected ones also drives the tendency for marketers to come up with new and often confusing or downright dishonest common naming conventions, so that any cheap, porous and slightly pink wood can become "\_\_\_\_\_ mahogany", if it's orange-y brown and oily it becomes "\_\_\_\_\_ teak", and coniferous trees of all types can seemingly become any kind of "pine" or "fir" or "spruce" that is in high demand.

# Double Outrigger Canoe Historical Articles

January 10, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

No Comments

# Corsair Marine's Pulse 600 Trimaran Coming Soon

January 15, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Corsair Marine, Don Wigston, Pulse 600 Trimaran, Windcraft Multihulls

No Comments

# Sailing & Living Aboard a Patterson 21 Trimaran

January 16, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 21 foot trimaran, John Patterson, Patterson 21, Patterson Yachts

## Comments

### Stefano

January 17, 2015

Now... this is almost what I have in mind to build. Only differences, mine would be 22ft to allow for a small scoop aft (to board or clean a fish without messing about), it would have a larger centre cockpit with a custom tailored tent to provide shelter from sun or rain if and when needed, and it would have a double mast (two shorter ones) to be even more able to lower and raise the masts alone.

The motor would be in a dedicated well inside the 6.5 ft cockpit to be readily accessible.

All the rest of the configuration would suit me perfectly and I am pretty sure you can live aboard – even a couple could – for at least a summer vacation of 2 weeks on a similar boat – 850 pounds of payload mine would have.

This said, It would then be trailered onto another cruising area. Well done Mr Patterson, helàs you are not selling plans anymore. I would need no support, just the cross sections and lines of the hull to adapt to my own. Best regards, Stefano

### Small Tri Guy

January 17, 2015

Hi Stefano,

Yes ... a pretty neat boat, right? I am still amazed by the package.

I think Mr. Patterson could offer building plans (but no support). I think some guys, such as yourself, might take him up on it. I also love your idea of a custom tent to shelter the cockpit. I'd love to see some pics of the interior of this boat too.

### ian

January 17, 2015

I'm curious about the steering, both design-wise and how it worked out in real world conditions...hopefully the designer will see this and might respond...

from what I can make out it appears to use a more or less traditional shaft and stuffing box with the pivot portion of the kick up rudder assembly living underwater...I've seen other designs over the years that do this, usually with a short skeg to protect the cheek plate assembly...is such a skeg part of this boat's underbody, and if so is there any kind of gudgeon that support the lower end of the shaft/cheek plate assembly, or is the through hull area the only lower support?

Were there ever any problems with keeping things clean and corrosion free during long stretches when the boat was in the water, and was there any provision for raising/lowering the blade from on deck? Was the blade a floater or sinker or neutral?

Usually I've seen this arrangement used to work around a stern that can't accommodate an outboard kick up rudder, or to move the rudder's vertical axis forward, but that doesn't appear to be the case here...which is kind of surprising considering the extra work and maintenance compared to a transom hung rudder and the fact that the center cockpit layout might benefit from a shorter tiller...just wondering what the reasoning was for going this route.

It certainly adds to the mini-yacht look by eliminating the traditional transom hung kick up rudder that immediately says "daysailer" in most cases.

I'm also curious how that tiller setup worked in real life situations that required sharp turns...were there ever times when the turning radius was compromised by the long tiller's sweep being limited? I think see an extension; was it ever used to increase the available sweep without having to hang out of the cockpit to push the tiller to an extreme, like in an emergency?

I love this kind of little cruiser and have drawn up a number of ideas for boats in this size range and have built models of some of them; with a tiller the steering geometry is a major factor in what you can get away with as far as crew placement and aft cabin size/layout goes, so I know it's no small feat to make something like this workable without using cables and quadrants and the like.

It really is a neat little package that seems like it could easily accommodate variations like the scoop transom that Stefano describes.

### Reuben Filsell

January 20, 2015

I would also be interested in a set of plans, no support required. Just what I'm looking for, a minimal coastal cruiser for two.

### Small Tri Guy

January 20, 2015

Reuben, I will ask John and see if he is open to the idea of offering plans without any customer support. If he is open to the idea then I'll post an update here.

### Reuben Filsell

January 20, 2015

Brilliant ! I'm happy to receive them electronically as long as it's done properly and everything prints to scale.

Saves a lot of hassle IF it's done right.

Cheers and thanks,

RR

Long live "little boat" :)

### Bill S.



January 21, 2015

I looked at one in rough shape last year – offered \$5K but was turned down. Owner had Farrer F-22 prices in his head. The wooden mast had some cracking, the traps were a mess and the owner had hand spray painted the boat horribly with cheap paint. Boat needed complete stripping, sanding, fairing and paint to return it to sail-able condition.

Looked like a nice boat under the mess – the rudder mechanism wasn't the simplest approach, and the folding method looked about rev 1.0 TrailerTri 720. Had not been sailed in a long while sitting outside in Canada.

I too touched base with John Patterson and talked about the design. Nice guy.

He was not interested in selling plans at all.

—

Bill

**Pirate Pete'**

January 21, 2015

Just what I am looking for. Someone must have a set of plans or at least detailed drawings. The concept is super.

**TomH**

January 23, 2015

For those interested in this type of design... I've added my collection of pics to a dedicated album on my FB page <https://www.facebook.com/tomh151>

This design is a VERY clever use of interior volumes and ideal as a serious cruiser for solo sailor. Mucking with it would only lose the benefits of the brilliant work by Patterson.

If it's not the right boat for you find another design that have all the 'extras' you want and build that. but it's worth detailed study to learn from when doing your own design.

Cheers,

TomH

**Reuben Filsell**

January 24, 2015

TomH; thank you for the link but I'm not a Facebook user :(

I used my girlfriends account, lots of great multi photos. The red/pink centre cockpit shots with inflatable were the only two I identified ?

Cheers,

R

**Reuben Filsell**

January 25, 2015

A whole swag of Toms photos have just been posted on BD.

<http://www.boatdesign.net/forums/multihulls/patterson-21-trimaran-plans-52364-2.html>

**Richard Benning**

September 21, 2015

I bought "Itl Boat from john Patterson. That is me sailing in the pic's. This was an amazing little boat. Cedar strip built beautifully. Aft cabin really a single but comfortable. I know john sailed her in the keys for 6 months. Had a head and tiny galley. Wing mast was great and rudder system worked very well. As I sail mainly in light air I wish the stick would have been 34' instead of 29'. Very stable boat to sail and easy to trailer

**Stephen**

July 19, 2018

Hi Richard,

Please email me: Multihuler AT aol.com

Stephen

# A Look at the Radikal T26 Trimaran from France

January 19, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Radical T26 Trimaran, trimaran radikal t26

## Comments

**Patrick**

January 26, 2015

Looks nice and fast, but unexpected strong nosediving of lee hull, although the big circular foils !

Such foils should give bow up trim !

**Johnathan**

July 28, 2016

Yes, the outrigger hulls are just a trendy shape and cannot be a serious attempt to prevent nose-diving.

Has anyone seen the demonstrator up on its foils ? Or are they "just for show" too ? Maybe they are not that kind of foil !

If this boat is aimed at those who have a limited budget it should be made of glass fibre and not carbon. Obviously it isn't so this reader/writer will not be asking for a price.

Radikal Boats please note !

# Sea Flash aka Stress 14 trimaran?

January 23, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Mauro Sculli, Sea Flash trimaran, Stress 14 trimaran

## Comments

**stefano**

January 24, 2015

Looks like a prototype.. the rendering looks better, but the aft blocks could be better placed more far apart from the tiller...

I think it's just a "concept boat" at this stage

**ian**

January 25, 2015

On one of those links there's a photo of four "Sea Flash" boats on the beach together at one time that are apparently from the same mold, so that version does seem to have gone into production...although this handful of boats may have been the entire run.

My guess from the looks of the photos and design/construction is that it appears to have maybe been introduced in the 1970's-80's...? I see a lot of Laser and early Hobie influences.

The updated "Stress" version in the rendering looks a lot better as far as modern ama shape, volume and placement, but as you note it still looks very conceptual and sketchy...the main sheet and traveler as shown is incomprehensibly weird like an M.C. Escher drawing but the Sea Flash sail plans and photos show the same block positions and leads, so I guess it must work to some degree.

**Mark**

March 14, 2015

This looks a lot like my old Tri Fli, by J & J Marine - 1983. It had a stepped mast with a wish boom like a sailboard. Otherwise very similar.

**Gregor van Emmerik**

March 4, 2021

I am looking for a trailer sailer tri, preferably 5.5 metres LOA.

I do like the AKA concept

# Fun with an Inexpensive Littler Trimaran

January 26, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Littler Trimaran

## Comments

**Hans van der Zijpp**

January 27, 2015

What a nice idea using the flattened PVC.

I'm curious how Joe attached it. Just plain pvc glue ? Is that strong ?

Are the ends also sealed with flat PVC.

I like the boat and it must sail quite quick with such a big sail.

Regards,

Hans van der Zijpp – bigger little trimaran builder.

**Small Tri Guy**

January 27, 2015

Great question Hans. I am not sure, but perhaps Joe will see your question and reply here.

**Joe Mengel**

January 29, 2015

The flat pvc is attached with bolts through the pipe and there's a layer of resin and glass between the two. The ends are sealed with plywood that's been coated with a layer of fiberglass and resin. The amas leak a little bit so it's important to have a drain plug in them. We also attached small keels to the bottoms of the amas and these were attached with screws and again a layer of glass cloth and resin between the two.

# Little Tri on Stage in Amsterdam / Holland

January 29, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bernd Kohler, Little Tri

## Comments

**Dani**

June 29, 2017

Hi. What measures do PVC pipes have than their stabilizers

# Building a Scarab 650 Folding Trimaran

January 30, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Ray Kendrick, Scarab 650, scarab multihulls, Team Scarab

## Comments

**Peter**

March 30, 2020

Is there any scarab tris for sale?

**Tom Brown**

June 18, 2021

What is the cost to build the 650? Do you recommend epoxy or polyester resin.

**Markus Gunther Schultz**

January 14, 2022

I am building the 650 in Brazil. Se do not have all the material available in Austrália, but the Hull is receiving the main beams at this time, and till now I didn't need to ask advice from Ray. Very easy building in plywood.

# Double Outrigger Sailboat in Popular Science Magazine (August 1949)

February 5, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger, outrigger sailboat

## Comments

**Stefano**

February 5, 2015

..."Built in a weekend" ... That must be the exact time when the notion of "long weekend" came about. This document is historical !!

**ian**

February 7, 2015

I'm pretty sure that the speedy synthetic resin glue described is Resorcinol, which had been developed just a few years earlier for the war effort...if so, the author is also exaggerating the part about gap filling and those elevated cure temps might be less optional than he implies.

Also interesting to note that Victor Tchetchet's first tri was reportedly built around 1945-46...this design seems quaint now but this whole idea was very cutting edge for that time period and this article is a great example of how Popular Science and Popular Mechanics promoted brand new ideas and helped to drive people's desire to build and experiment with them during that era.

# SeaRail 19 Trimaran – 2015 News

February 12, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Corsair, Searail 19 trimaran

## Comments

**Stefano**

February 12, 2015

Looks to me like this tri would benefit from more volume in the floats...the video shows that with perhaps a force 4 bf and down wind they are already submerged

**Small Tri Guy**

February 12, 2015

The video is a couple years old. The SeaRail amas now come with 30% more volume than the originals - <http://smalltrimarans.com/blog/?p=10341>

**Stefano**

February 12, 2015

Thanks Small Tri Guy ! I picked this other link for a video with larger amas.

Glad to learn that while not being Nigel Irens, my eye was not betraying me :-)

<https://www.youtube.com/watch?v=eFuXB9VJ4XU>

**Small Tri Guy**

February 12, 2015

You DO have a good eye for details Stefano :-)



# The Kormaran – Speedboat Turns Into a Trimaran & Catamaran And ...

February 15, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Kormaran

No Comments

# Endorphin Trimaran – Combined Motorboat and Sailboat

February 16, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Endorphin Trimaran

## Comments

### Frank

February 28, 2015

Great slide show. How was the performance?

### Tony Fannin

March 13, 2015

I asked exactly the question at boatdesign.net recently that's been answered here.

Can you rig a trimaran as a biplane rig in both floats? It would be interesting to hear from somebody about how to work out rig loads as there are quite a few issues that would need to be addressed in something a bit larger than Endorphin – beam twisting loads as the rigs power up for example. Good on you Russell for thinking outside the square. Do the rigs allow you to point high enough upwind to tack comfortably, or do you need the motor. And what sorts of speeds are you getting?

Once again nice work

Tony

Australia

### Russell Maxwell

March 15, 2015

Hello Tony. So I have 2 windsurfer sails, with carbon tapered masts. These give the 'jelly tip' effect- when a wind gust hits, the top of the sail lets the wind spill out, and then it hardens up again.

One huge advantage of the motor assist is that; as you see the wind gust coming- you increase speed. So that you actually are able to take advantage of the power of the wind gust. It is only a small boat and so you can change speed quickly. You often travel a long way with the same wind gust. Quite cool.

I don't think I will ever go back to just a sail boat. The motor has added so many options.

e.g. going downwind. Reaching on a wave. Regardless of the wind speed; you adjust the motor so that you are travelling at the wave speed, or greater.

In this mode, I have to be careful not to let the motor rev out too much.

Pointing. So the centre hull is hard-chinned. This gives a lot of 'bight' in the water. The centre board is narrow and long. I am able to point as high upwind as any nono-hull that I have sailed with. Endorphin tacks easily.

Speeds. ? I am very happy with the speeds. Particularly on a broad reach; or reaching downwind (as you might expect).

Will have to get a GPS and test the speeds.

The fun part is that it is a dry boat and effortless to sail.

It has exceeded my expectations.

I have had lots of fun this summer.

Russell Maxwell

### Tony Fannin

March 16, 2015

G'day Russell,

Thanks for getting back to me. I think you've got a very innovative little tri there. Good on you.

Tony

Queensland Australia

### Jerome LaFreniere

March 24, 2016

Russell. Do you by any chance have plans for this boat? I completed a large(63') cat several years ago up in Seattle with the help of John Marples. It was a big project and at my age I wouldn't want to do it again. This tri seems like a project I would consider. I like the twin mast concept and the materials list seems modest. I had a couple of Windriders but would like something a little faster for Lake Havasu, AZ. where we get good wind.

# Small Treasure Trove of Early AYRS Trimaran Articles

February 17, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: AYRS trimaran articles, Victor Tchetchet

## Comments

**ian**

February 18, 2015

Digging some more through the AYRS repository I found a photo of Tchetchet's "Egg Nog" on the cover of issue #6-

<http://www.ayrs.org/repository/AYRS006.pdf>

and a lines plan and commentary regarding his "Egg Nog II" design on page 14 of issue #23-

<http://www.ayrs.org/repository/AYRS023.pdf>

The boat in the photo looks remarkably modern in comparison to what small multihull design evolved into the next 20 or so years (especially DIY), and the impression I get from reading these old articles is that any reported problems with his designs were the result of his willingness to experiment, and not from amateurish ignorance of the principles involved. He was clearly way ahead of his time not just because he was chronologically first, he was first with a lot of good ideas that took decades to become accepted.

The Egg Nog II lines bear this out, if you look past the chined construction and old timey rudder and board profiles it's got the reverse bows and very straight runs and curved akas and dihedral of a modern offshore tri, which no doubt looked positively insane to a lot of purists back then, and still does to many...the mast aft rig is another indication that he was willing to really commit to testing ideas no matter how crazy they might appear.

His ideas didn't all work and the boats weren't perfect, but in the long term it appears that multihull design in general has trended towards Tchetchet's ideas while many of the more popular and ostensibly superior designs that sprang up in his wake are now considered obsolete.

**Small Tri Guy**

February 18, 2015

Some more great gems on the ayrs.org site Ian!

# Unique Solo Paddlewheel Trimaran

February 17, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Paddlewheel Trimaran

No Comments

## 2007 Windrider Trimaran For Sale (North Channel Sailboat)

February 26, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: 2007 windrider trimaran for sale

No Comments

# A Wavelength Cruises the Kimberley Coast

February 26, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: multihull designer Robert Forster, Wavelength Trimaran

No Comments

## Quick Look at the MIND 15 Trimaran (in France)

March 3, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Mind 15 Trimaran

### Comments

**StarzSailor**

September 11, 2019

The minimaran website seems to be down now. Some interesting drawings from the MIND 15 can still be found on web.archive.org :

<https://web.archive.org/web/20161112051816/http://minimaran.fr/page2.html>

I also found a video about the small trimaran named Minimaran from the 90's :

<https://www.youtube.com/watch?v=NzLgey-iS-c>

More info can also be found on that page (bottom post from user Manfred.pech) : <https://www.boatdesign.net/threads/12-and-under-trimarans-ideas-and-designs.56324/>

# Introducing the Seaclipper 13 (4 Meter) Trimaran

March 3, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, Seaclipper 13 Trimaran, Seaclipper 4 Meter Trimaran

## Comments

**Eric Dahlkamp**

October 25, 2017

How does the Laser sleeve luff sail accommodate the spinnaker mast tang?

**Steve Haintz**

March 19, 2018

Our Yacht Club has had a donation of a 5 Meter SeaClipper a very interesting boat indeed it has a Tabernacle base where the mast gets lifted into. I am now trying to rig and get all relevant info as possible on rigging this boat.

There does not seem to have any info on youtube or anywhere else.

We obviously can fluff our way through in rigging however I would like to get this to run as per specs. Our Club is Yarrowonga Yacht Club in Victoria and we are an inland sailing club on Lake Mulwala.

Any relevant info would be appreciated.

Regards Steve Haintz Commodore.

**Small Tri Guy**

March 19, 2018

John Marples can help you. He can be reached via the contact info on his website at <http://www.searunner.com>



# New Site for Kismet Multihulls

March 5, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bill Kristofferson, K24T trimaran, Kismet Multihulls

## Comments

**David Lipsey**

July 5, 2022

Hello Friends, I have looked for a set of plans for Bill's Kismet K24T but have never been able to find any from Bill or elsewhere. Joe "Small Tri Guy" emailed me to say that Bill was out of business. I would gladly pay Bill if I could, but now am wondering if anyone has a set to purchase or purchase a copy? Thanks, David

# Go Shrek – Trimaran in the Texas 200

March 5, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Texas 200, windrider trimaran

No Comments

# A Searunner 25 Charter in Tropical Costa Rica

March 13, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown, John Marples, Searunner 25 trimaran

## Comments

**ian**

March 14, 2015

Wow, small world...it's been nearly 40 years and the Imperials were flowing freely but I'm pretty sure I knew the guy who built this boat in Playa de Coco, back when I was a teenager cruising with my family in this exact same area. Gary Speeds I think his name was, or something very close...he was a master woodworker who had built a house there and his dad had property up the coast a bit and they were developing the boat production business when I met them.

They also built a Laser-like 13' planing dinghy out of locally sourced plywood and epoxy, and the craftsmanship wasn't just professional, it was impeccable...I ran into them a few years later at a boat show when they eventually imported some to the US in the early 80's, and even people who didn't really know boats could see the hand of a true artist in them and were fascinated by the attention to detail and level of finish...they were crafted like musical instruments, which was all the more remarkable considering the primitive conditions of a tiny Costa Rican beach town four decades ago.

But they were also remarkably durable, and the fact that this boat survived years of serious neglect in tropical waters speaks to the builders skill and quality of the materials that went into it. It's so nice to see it preserved the way craftsmanship of this level deserves, and that a wide variety of people get to enjoy it so many years later.

**Neil Kahn**

March 14, 2015

Hello Ian

It is a small world. A few of those Strikers are still around. I was told I could get one in usable shape for about \$200.

I believe what you say about the quality of the original build on Ashuma. Thanks to the great original work she has been fairly low maintenance.

Pura Vida

Neil Kahn

**Mark**

April 25, 2016

would love to see more pictures of your 25 :)

# Viroga Sailing Kayak as Trimaran (Or Not)

March 21, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: kayak trimaran, sailing kayak, Viroga kayak trimaran, Viroga sailing kayak

## Comments

**john allsop**

October 26, 2015

I would like the pontoons (outriggers) to be a lot larger.

**john allsop**

October 29, 2015

I have mentioned this before. The outriggers look small and Viroga don't give their volume or size. They look a lot like the original ones used on the Triak, at their upgrade Triak,s were increased by 50% or more. I think Viroga should make theirs bigger or ask customers would they like to have outriggers with a larger volume.

**john allsop**

November 1, 2015

I have now been able to see the innovation, development and design of this craft and so much research plus a great deal of testing makes me think that the outriggers and all aspects of this sailing and paddling kayak are probably as good as it gets.

# Outriggers and Sail Rigs for Canoes

March 27, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: outrigger canoe, outrigger sailing canoe, sailing canoe

No Comments

# Building a Wa'apa Double Outrigger

April 3, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger canoe, Gary Dierking, outrigger canoe, sailing canoe, Wa'apa

## Comments

**steve**

July 13, 2016

So.....hope the build is going well. I share your enthusiasm for this boat, been reading the book and really like the character and the features of this design – especially being able to break it down into 3 parts for the main hull, two each for the amas. No big trailer to buy and find room for. And the length to waterline beam – gotta be a great sail.

**Small Tri Guy**

July 13, 2016

Hi Steve,

I'm currently sailing my boat. I have to do an updated post about it. There are some things I really like about the Wa'apa. I don't like the fact that, as a trailer-sailor, it takes me at least 20 minutes to put it together at the boat ramp (and then take it apart when finished) every time I go sailing. I knew this would be a bit of an issue prior to building it ... I'm just sayin' :-)

**Steve Veltkamp**

June 11, 2017

Is that just the camera, or does the hull really twist and shimmy that much in the water? I'm in the process of building my wa'apa now (just put the bottom plywood on)

**Small Tri Guy**

June 11, 2017

Hi Steve,

The center hull is narrow. The platform of the craft can significantly move to and fro at times (assuming this is what you're referring to when you use the word "twisting" in the above.)

**Leo Utskot**

May 28, 2018

Check out my build: <https://medium.com/@lutskot/building-a-4-8-meter-long-wa-apa-canoe-outrigger-sailing-boat-f9edb867fa9a>

**Chris**

December 2, 2022

Hi, I will be starting my own Wa'apa build in the new year. I am very interested in your self-bailing footwells. What height did you put them at? Would you have liked them to be higher or lower?

# Triak for Sale in Northeast US

April 10, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: triak, Triak kayak, Triak trimaran

No Comments

# Sprint Canoe Trimaran in Slovenia

April 22, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: sprint canoe trimaran

## Comments

**Ernesto**

May 6, 2015

Do you have plans??

**Small Tri Guy**

May 6, 2015

I don't know for sure, but I don't think Louro has any building plans for this boat. Since it's basically his first one, I imagine he is preoccupied with just getting it into the water at this point.



# Securing a Mast for Trailing with a Small Trimaran

April 23, 2015

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: safely trailer mast, trailer mast on small multihull, trailer mast on small trimaran

## Comments

**Stefano**

April 27, 2015

Whenever trailering and securing a mast, make sure you do not lie it down on it's side (narrower part of the mast section). At some speed, if you encounter pot holes ( very likely over here) or roas bumps made to slow down cars, the effect will be the mast whipping the air unsustained, and this may cause permanent damage.

Lace it so to reduce whipping motion and put it "vertically" on the supporting points.

# Windyak – A Kayak That Converts Into a Trimaran

April 29, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: kayak trimaran, Windyak

## Comments

**thomas burton**

August 1, 2017

Where can I purchase a Windyak? I live in the UK

**Small Tri Guy**

August 1, 2017

We're not sure Thomas. If I were you I'd contact Windyak directly and ask them about the possibility of buying one of their conversion kits –

[http://frederic.jouffroy.free.fr/windyak/?page\\_id=87](http://frederic.jouffroy.free.fr/windyak/?page_id=87)

# Single Outrigger Ulua Soon to Become Double Outrigger

May 1, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Gary Dierking, outrigger canoe, Ulua

## Comments

**Dan**

May 4, 2015

I actually loved the boat as a tri and later decided to make a second set of iakos to make the single outrigger. I found the boat fantastic to sail although a bit challenging to paddle steer without a big paddle designed for the task. Setup time ultimately made me sell the boat. Perhaps setting up Dierking's folding ama like he has on the newest boat. That would allow you to set up in just a few minutes from the trailer. Good luck!

Dan

**Chris**

May 11, 2015

Thanks for sharing Den. I've just finished 'glassing the exterior of my 22ft Ulua and hope to speedily complete the rest. I am going with a daggerboard and safety ama on mine.

**Den Bullen**

May 15, 2015

Hi Dan and Chris,

Te Waka Hikurangi was going to get another ama a year ago but the wife and I shifted from the Manukau Harbour to the coast of Thames and we just kept on sailing. A version Gary D's (He just lives up the coast) folding ama is in the design stage and the new ama is under way. We paddle the boat even though its set up for sail, I made some curved Tahitian paddles and use one to steer; with hardly any problems (LOL). Also have a rudder but that is reserved for the Wife and new crew member. This is so two can sit on the reaching boards for obvious reasons. We have no safety ama and the lee board is used only when we leave or come into shore. The forestay is clipped on and the shrouds are clipped at the mast and loosely half hitched to the iako's. We can be sailing within 10 minutes of getting to the sea. The trailer was designed (stainless) for the boat and its real easy to slide off and back on.

I am curious about speed and my thoughts are that we should be able to go faster with two amas.

Cheers Den

# Ezifold Yachts Now Offering Plans for the Buccaneer 24 Trimaran

May 4, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Buccaneer 24 Trimaran. Lock Crowther, Ezifold Yachts

## Comments

**TomBomb**

October 15, 2017

Looks like ezifold packed up and left the internet. Darn.

**Patrick the old geek**

June 21, 2018

Any one know where plans for the Buccaneer 24 Trimaran can be had now just wondering.

**Roman Pastenkos**

March 16, 2021

Looking for a set of Crowther Buccaneer 24 builders plans.

# Strike 15 Trimaran – Short Sailing Videos

May 4, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Richard Woods, Strike 15 Trimaran

## Comments

**Chris**

May 11, 2015

Rigged for speed for sure. Nice setup.

# Cross 18 Trimaran Looking Super Sharp

May 4, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Cross 18 trimaran

## Comments

**Stefano**

May 9, 2015

Beautifully executed upgrade and moreover it looks very functional ...

From the sailing vids the only comment I can make is that perhaps in light winds the jib might benefit from a "barber hauler" to pull more outwards the sheeting points ( or fix them more outwards to then be able to pull them inwards). The jib seems to "close up" a tad too much on the main.

This said, again great job and looks !

Cheers, Stefano

**Larry Saupe**

May 9, 2015

Fabulous work. Very sharp!

**nelson holditch**

September 18, 2017

Very nice work. I love the nice crisp and fair lines of the transom and deck edges.

Nelson

# Little Tri Sporting a Split Junk Rig

May 13, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bernd Kohler, Little Tri

## Comments

### Stefano

May 14, 2015

Neat boat. As for the short mast, why not just build a wooden extension to be struck in the mast partner? Should take less than 1 hour...

Looking forward to see videos of it sailing ( best compliments for keeping the camera steady and making a worth-seeing video)

### Michael

June 5, 2015

Great job! Loved FL120 videos.

Where did you get the sail plan from (how many sq metres).The tri was doing some low level flying in one of the videos.

Any issues you found with the rig.Sorry to hit with so many question but I am very interested in this tri.

Thanks

Michael

### Mike

July 21, 2015

I really should check in more. :)

The sail plan was taken from the designer of the split junk rig, Mr. Slieve Gallaird who wrote a very good guide to the theory and application of the split junk rig (<http://www.junkrigassociation.org/slieve>). The sail plan itself comes directly from his drawings, resized to get the correct CE to the boat, and shortened by three panels for a smaller sail area. The result is a somewhat low aspect ratio sail that still works well and keeps the boat balanced.

The total sail area (minus the split) is 130 sq feet. Each reef removes 28 sq ft (it has three reefs). Yeah, that is a lot of area for a small 15.5' boat, but the little tri handled it well.

Any issues with the rig are totally self inflicted. The panel layout was sloppy which resulted in unequal panels with wrinkles. Also contributing was a poor yard attachment point (too close to the mast) and lack of a yard hauling parrel which made it near impossible to set the yard angle needed to make the sail hang correctly at 10 degrees batten angle. If the yard was set at the right angle, the entire sail would have hung straight without any tension transferred to the panels themselves.

Overall though, it was the first sail I have ever made or sewn. The lessons learned will be used in a new sail in the coming months. :)

### Michael

August 20, 2015

Thanks Mike for the reference and information!

### Gene Gillis

October 6, 2015

Happy sailor Mike. I am fixing to start my Little tri project and ,I am interesting in the sail you made for yours. The plans called for a Sunfish sail on a windsurf mast. I was told the sunfish only has about 85 sq feet of sail and your Junk rig about 130 sq foot. That is a lot of difference. Is it being a different design why , or will the boat just hold a bigger sail? There are lots of questions I would like to ask you, if I knew how to get in touch with you if you are willing.I have an email [genegillis AT hotmail.com](mailto:genegillis AT hotmail.com) if you would consider. I have looked at all your videos on youtube. but don't know how to contact you. Thanks if you would.good sailing!

### Reuben filsell

May 4, 2017

Has this boat been sailed ?

What was the verdict ?

# Windrider Begins Production of Rave V Trimaran

May 13, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Jim Brown trimaran, Windrider, windrider trimaran

## Comments

**Steve Anderson**

June 23, 2015

Just out of curiosity: how is this boat different from the Windrider Rave that was marketed 10 or years ago, in competition with the Hobie TriFoiler?

**Dean Sanberg**

June 23, 2015

Steve, great question. There were some key objectives to address: Simpler to launch and sail, ease of pulling to dock/beach, lighter weight for foiling in lighter winds to name just a few. Let me start with the name RAVE V for "V" foils versus "T" foils on the original. We have an innovative design including a sonic tube at the apex of the v which creates a self-trimming action, greatly simplifying the foiling experience. They are fully retractable.

RAVE V will be approximately 310 pounds vs. over 400 pounds for original Rave because of a combination carbon fiber/fiberglass build vs. hdpe rotomolded plastic. We anticipate foiling at 8 or so knots vs 14 with original Rave.

A frame rigging (strength from triangle shape) eliminates need for side stays, creates greater sail area and righting moment.

We have more information and detail designer notes at the blog on our website. This will be updated after returning from Foiling Week in Italy next week where Larry Knauer, Lead Designer, is giving a talk on our innovative design.

**Small Tri Guy**

June 23, 2015

Steve,

Just FYI ... Dean is the President of Windrider. *(Many thanks for taking time to reply Dean :-)*

**dutchy**

September 24, 2015

Hello Small Tri Guy,

It is now the 24th of september. In their presentation of the Rave V they announced to have the prototype ready at the end of august. Did you hear or see anything about this design yet. I myself am very curious whether this design with the twin sails with angles will work.

I did this myself in a model trimaran and beside angles you need a lot of ama-to-ama distance to have this work properly. (Yes, like the trifoiler !)

Anobody ?

Kind regards

Dutchy

**Small Tri Guy**

September 24, 2015

Hi Dutchy,

I haven't got a Rave update yet. I've been hoping to hear from Windrider's President on the topic of this boat. I'll have to follow up with him and see how things are going.

**Dean Sanberg, President WindRider International**

September 24, 2015

Thanks for the questions about the RAVE V. We have been keeping a low profile as we are behind schedule and over-budget. Having never myself been involved in building a new boat, I'm told "so what else is new"?

However, the good news is that the boat is coming together per our specifications including favorable outcomes of testing of the foil in the tanks at University of New Orleans School of Naval Architecture. We are scrambling, as we speak, to have the boat at the Annapolis Sailboat show in two weeks, along with the French made Astus 20.2 trimaran, nominated for Sail Magazine 2016 Boat of the Year. I'm happy to answer questions and welcome all who can visit Annapolis to do so.

**Small Tri Guy**

September 24, 2015

Hi Dean ... thanks for answering so soon :-)

I am very glad to hear the RAVE is progressing. Great news!

**dutchy**

October 17, 2015

Any photos available from Annapolis Sailboat show from a real Rave V ?

I am just curious because I made a sailboat trimaran model with similar sailconstruction as the Rave V.



2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

I found out that concerning my trimaran, the angle between the sails should be like approx. 30 degrees, and that the distance between the bottoms of the sails should be approx 1,5 times the length of the sailboat to have sufficient effect on the sailboat. (to keep it upright). When I realized this the length-to-width ratio was disturbed and it would not get to speed.

Kind regards

Dutchy

**Dutchy**

December 18, 2015

Hello Rave-men,

I have seen the last report about the Rave being on holiday.

Also I read about the expected downsides of this whole concept.

I would like to make a remark:

There are a lot of "small-trimaran" addicts who would share ideas and advise on how to move on!

Kind Regards and Good Luck.

Dutchy

**Tim Cross**

July 15, 2017

July 2017, What's the latest on the Windrider Rave 5 ?

**Tim Cross**

July 15, 2017

So what's the latest on the Windrider Rave V ?

**Tony**

January 9, 2018

Dutchy, any photo's anywhere of your sail plan?

Thanks,

# Banane – Outrigger Sailing Canoe on the island of Veddoe

May 18, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Banane Outrigger Sailing Canoe

No Comments

# Little Tri Sailing Fast with a Junk Rig

May 19, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bernd Kohler, Little Tri

## Comments

### Stefano

May 21, 2015

Wellcome the neat sailing and Florida 200 videos... Thumbs up for Mike not only for the neat building result, but also for posting videos that are well defined and intellegible.

I would like him to expand about the daggerboard case cracking... I suspect the side daggerboard case only structurally works when on the lee side, and that a pulling motion when on the other may cause structural failure.

It would be interesting to learn because after all the external case leaves lots of uncluttered space to be used within the boat which is not bad to start with.

Keep on posting videos !

### Stefano

May 21, 2015

In this video: <https://www.youtube.com/watch?v=aUH3utHvfak>

Mike speaks about "vibrations in the boat"... to me, it's the right side ama that pulls back on the aka, clearly seen in 1.58 and 1.59 of the footage.

A way to solve this problem is to link the two akas with some board or tube parallel to the main hull, so that they can both work together (even a bench can do) and, if still not sufficient, put then a couple bridles on the forward aka to the bow, to take some of the bending motion.

Another possible case could be slight misalignment in rudder gudgeons and pintles or rudder construction itself, showing up only at higher speeds.

I had both problems on Nepau my small tri that has very similar size to "little tri", and sorted them out as described and by adopting a kevlar-carbon class A catamaran daggerboard as a rudder foil.

### Mike Mangus

May 26, 2015

Heya, this is Mike. The builder of the Little Tri above. :)

The daggerboard case crack happened in heavy rough water while sailing at high speed. From what I remember, the boat got pushed hard by a wave into the port side (case side) just as the boat was descending another way. The water was very mixed and rough with a huge amount of stress on that particular point.

Bernd has released a plan addendum to reinforce the lower case and tie it more firmly into the hull. In hindsight, I should have done something similar.

The vibration turned out to be the rudder case projecting down a little too far under the transom. Either I made it too long or put the pintles on too high. The easy fix was trimming the bottom of the case a little. The entire cassette rudder assembly overall is bulletproof. :)

I have some changes and tweaking yet to do. Overall the boat design is solid. I really pushed it hard on the second and third day in coastal waters. IN the evenings I slept in the cockpit with plenty of room to roll over my 6' 1" 225 pound frame. :)

As for the sail rig, it worked great even with the issues noted in the videos. A new sail is forthcoming to correct construction mistakes. Even with zero sewing and sail making experience though, the sail still moved the boat rather well I think. :)

### Dani

November 5, 2017

Hi Mike. I would like to know how plywood connectors are attached to pvc tubes?

### Vincent Walter

March 29, 2021

Hi..

I'm building one...

I want to make this split junk rig.

Can you send me details on it?

Thanks

# K2 Kiteboat Foiling Trimaran

May 28, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: K2 Kiteboat Foiling Trimaran

## Comments

**Bernd Kohler**

May 29, 2015

I think this are the same people.

This video at Maui 2010 are at least as impressive

[https://www.youtube.com/watch?v=xEe8N\\_f4uq8](https://www.youtube.com/watch?v=xEe8N_f4uq8)

Phenomenal

Bernd

**Small Tri Guy**

May 29, 2015

Hi Bernd,

That IS a great video you found!

**Captain KOUKOU**

May 31, 2015

Hi This Kite boat project is a very cool project, but Don Montague was not the first began attaching kites to boats.

Have a look on this link: <http://www.cobrakite.com/jaclad.html>

Jacob's ladder was the first in my mind.

Captain koukou

**Small Tri Guy**

May 31, 2015

Thanks for the info & link Captain Koukou

# Another Bateau Canoe Turned Into a Trimaran

June 4, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Bateau canoe, Bateau canoe trimaran, Bateau outrigger canoe

## Comments

**Daniel**

June 27, 2017

Hi, what size has the central hull and side ( ama)hulls?

# Race to Alaska Includes Small Trimarans

June 4, 2015

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: race to alaska

## Comments

**ian**

June 14, 2015

Team Elsie Piddock in an F25C is the first finisher and grand prize winner, beating the predicted ten day to two week finish time- by half.

This race is already shaping up to be as legendary as the great ocean races of the 70's like the OSTAR...besides the expected cold and currents and other hazards, the wind/weather has ranged from non-existent to life threatening (but always on the nose) and the boats and crews have all been tested, many past the breaking point.

Thankfully people are choosing to bail out and live to fight another day- about a third of the fleet that began the second leg are out already and many remaining ones are indefinitely sitting out bad weather and currents...but the remaining teams are still trying to finish even though second prize is a set of steak knives.

Everyone is taking the event seriously now; there's no doubt at all that this is a real race and not an ill-advised stunt.

This is a great piece that really captures the overall sense of grass roots excitement and support for the race, that has taken even the organizers by surprise-

<http://r2ak.com/daily-updates-2/june-12/>

some fantastic aerial photos of the racers that give a sense of the conditions-

<http://www.annwelch.com/r2ak/MissionAirWing.html>

And this account of a night aboard a Windrider Rave trying to claw off a lee shore in conditions so bad they couldn't tack is a real eye opener-

"The boat wouldn't come around in that wind and sea state. We basically side-slipped across the entire Strait." Winds he says had built to 40 knots and seas were 15 feet and breaking.

"We were getting the sh\*t beat out of us," he said. "We started to try a jibe but it was obvious the boat was going to pitchpole."

The nearly delirious, sleep-deprived sailors worked out a sort of system for managing the boat in the maelstrom. They kept jib trimmed to a close reach and with Mike calling out waves in the dark, George would ease the main and fall off down in the troughs to get enough speed to power up and through the waves hammering their port bow. This went on for five hours.

...Although Team Sea Wolf was somehow managing to hold it together, their Windrider was being driven back toward the muddy shallows of Sand Heads, at the mouth of the Fraser River. Both sailors were familiar with the area and knew that's not where they wanted to end up. With northwesterly fetch coming down all the way from the top of the Strait, the huge waves would be crashing down on the debris strewn lee shore.

"At that point we were forced to contemplate getting smashed apart on logs," he says. "So we decided to call the coast guard." "

<http://smallcraftadvisor.com/our-blog/?p=4448>

**Roger**

August 7, 2015

This was a great race and quite a kick in the head. The F-boats certainly were good ones for this race. The answer to if there is going to be another one will be released during the North West Maritime Center Wooden Boat Show on Sept. 11th 2015.

Roger

**Small Tri Guy**

August 7, 2015

Thanks for letting us know Roger. (It was great seeing some pictures of you up there in Alaska, by the way :-)

# List of Trimarans on Tacking-Outrigger.com

June 13, 2015

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: tacking outrigger, Tacking-Outrigger.com

No Comments

# Snowgoose Trimaran in the UK Ready for Finishing

June 14, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: French trimaran, snowgoose trimaran

## Comments

**Charles Jenkinson**

June 15, 2015

Is the wooden mast epoxy-glass sheathed? This may provide the extra strength and stiffness required.

**ian**

June 15, 2015

Hi Jerome,

Very pretty boat, and congratulations for keeping the previous owner's vision alive despite the lack of details...that's quite a puzzle to take on and just getting it in the water and moving is a feat in itself.

That amount of sail is definitely not small, but isn't outrageously large either and is in line with many similar tris of that size...along the lines of a slightly larger than standard light air rig that may need more attention and early reefing in a breeze but is otherwise reasonably sized.

I honestly don't think sail area is the issue with pointing and steering as much as the lack of a proper board to provide lateral resistance and a centralized pivot for the rudder to work with.

You are correct in thinking that the rudder is providing some lateral resistance; the entire underbody of any sailboat does so and has to be taken into account when you match a rig to it.

Proper helm balance is the first thing to get right, and once that is moving in the right direction any needed big fixes should be fairly obvious...a sloop with a normal rudder and not enough keel area will have the center of lateral resistance aft of the rig's center of effort and the result will be lee helm, which is not good at all.

You don't mention excessive weather/lee helm being a problem, and if it isn't that noticeable perhaps the designer put the rudder farther forward to partially compensate for the lack of a traditional keel or other board...

that's one way to do it but it's at the expense of crisp steering- if you consider the effect if the rudder was moved further and further towards midships, when it got to the middle of the boat it would work great as a keel but would have very little power to alter course quickly and would create lots of drag in the process of trying.

The simplest way to tweak the CLR/CE relationship is to shift weight around and with sail trim...since the hull itself adds to the lateral resistance, making the stern or bow sink deeper will move the CLR, and obviously a slack sail develops less power. Since your boat is light and appears to have plenty of freeboard, you may be able to make a good deal of progress just by moving stuff around a bit or adding some trimming ballast...even seasoned designers don't always hit their design waterlines at launch so it is very possible that what you think is the optimum stance for the boat at rest, isn't.

Easiest way to do CE changes more permanently is with mast rake (not bend), which is how sailboards with no daggerboards can go to weather...this is a pretty good overview on tuning for helm balance-

[http://johnellsworth.com/writing/nautical/balance\\_helm/balance.html](http://johnellsworth.com/writing/nautical/balance_helm/balance.html)

Consider that most well balanced sailboats can operate under main alone, working jib alone, with either or both reefed, or with giant headsails without the boat becoming totally unmanageable...all of which is to say that the difference in sail area between the masthead setup you have now and a fractional rig probably won't improve your issues to any great degree by itself.

**Jerome**

June 15, 2015

Hi Ian, thank you very much for your comment and link, it is very interesting and it opens up a field of knowledge I am not very familiar with. I understand however what you wrote regarding the CLR/CE relationship and it makes a lot of sense. I only did one proper trial in a very gusty 15-20 knots wind and didn't have much time to try different combinations of sail and weight but it is what I should do next. It is good to know that the sail area will not make a massive difference, my plan is to trim slightly the main sail at the base so I can see, there is no boom so I will set up a simple reefing system - unused reefed sail will be simply furled up with small cords. I hope it will work. Before I read your comment, I was going to change the rig to a fractional 9/10 like I have seen on similar trimarans.. Now I think I will speak again with the sail maker and rigger and see what they say and also check the cost.. Thanks again , and I am also grateful for the comment from Charles who suggested to epoxy glass the mast.

Regards

Jerome

**Stefano**

June 15, 2015

Wellcome on board trimarans !

Ian said already what is to say... from my experience I would say:

1) build a very strong daggerboard case and kick-up daggerboard (a simple foil build approach is found on this blog in "little tri"). If you do not, with all that sail area you



will find yourself with a broken rudder rather sooner than later. the place where to locate it is just behind the mast and actually it can make the mast step and partner sturdier.

2) you can also derive a simple idea for trampolines form little tri pics. Connecting the akas with a stiff element would also help the ama from hobby horsing and providing too much leverage upwards and backwards. With all that sail, other than in the most gentle of the breezes, this is very likely to occur in such a sleek and presumably fast boat.

3) leave the rest unaltered and experiment with different jibs including smaller ones, then you will end up having a much clearer picture of what you eventually need when (and if) modifying the sail rig.

Good luck and enjoy !

Stefano

**ian**

June 15, 2015

Hi again Jerome,

It's hard to see it all in photos but the mast spar and standing rigging setup look to be something from another boat entirely and not originally intended for this boat; especially with the diamond struts and baby stay it looks a lot like a typical monohull daysailer/racer setup from the 50's-60's...you see similar newer fractional rigs with those things too, but that's usually for bending purposes with metal or FRP spars.

Fractional rigs are often used to meet/beat racing rules requirements too, and can easily be a handicap more than a performance enhancer.

One other thing I forgot to mention is that with the big roached mains and full battens many tris of this size can't use a traditional fixed backstay at all and use mast rake to position the upper shrouds to take up a lot of that strain, with running backstays used when they run spinnakers or other large headsails off the wind.

the Crowther Buccaneer is a good example, as are a lot of older tris of that size like Norm Cross's small tris-

<http://smalltrimarans.com/blog/wp-content/uploads/2010/07/buccaneer-24-trimaran-views.jpg>

Something else worth noting is that in that plan and a number of other Crowther and similar designs- the headstay chainplate is kept well aft of the stem, which is another way to shift CE aft without a major rig re-design...it's very noticeable in the Bunyip and especially the Kraken 25 rig (which also has that antiquated spreader arrangement)-

[http://sailboatdata.com/viewrecord.asp?class\\_id=6865](http://sailboatdata.com/viewrecord.asp?class_id=6865)

<http://www.boatdesign.net/forums/attachments/multihulls/49249-lock-crowther-kraken-25-trimaran-kraken25.jpg>

**Jerome**

June 17, 2015

Hi Ian and Stefano, thanks for your comments and suggestions and links, I will check with Joe how I can upload more pictures to show a bit more details about the boat. Following Ian's comments I have now decided to keep the masthead settings for now. On the pictures you will notice that there are 2 backstays and I think I don't need positioned there, they are too far back. The mast was bending laterally in the gusts and I think that if I move these backstays more to the side, it should help. There is a fixation on each side at the aft for running stays too in case I need them. I need to find a way of tensioning more the forestay, it was very loose last time and not good, I am thinking of installing tensioners on the aft shrouds. The standing rigging is all in dyneema ropes by the way. I need to give more thoughts about the CLR/CE to help with the steering. Right now I can hardly tack upwind, the boat gets stuck. I didn't notice hobby horsing but am planning to put trampolines on each side. A couple of times, the leeward aka went under water in a big gust, the boat slowed down, it seemed to handle very well.

**Small Tri Guy**

June 17, 2015

Jerome,

Just send me any pictures you want to add to this post. I'll upload them, no problem.

**Stefano**

June 17, 2015

Jerome wrote:

"I need to find a way of tensioning more the forestay, it was very loose last time and not good, I am thinking of installing tensioners on the aft shrouds. The standing rigging is all in dyneema ropes by the way."

I would suggest instead to install exact length shrouds and a forestay 6:1 or 4:1 purchase, perhaps under deck (palan in french) as is seen in this video in the first minute:

<https://www.youtube.com/watch?v=BCJNdnHt6HE>

As for side stays, I would again link the two akas with a rigid bar, then connect the two ends with a "patte d'oie" (a v shaped spreader i ignore the term in english) as seen here :

[https://www.google.it/search?q=haubanage+patte+do%27ie+trimaran&source=lnms&tbn=isch&sa=X&ei=mpOBVZ75E4v6ULW-gaAl&ved=0CAcQ\\_AUoAQ&biw=1280&bih=695#imgrc=Fohjyzi525iXYM%253A%3BCYKcpuU1c90CzM%3Bhttp%253A%252F%252Fwww.nauticaltrek.com%252Fimages%252Fdecouverte-de-l%3B403%3B362](https://www.google.it/search?q=haubanage+patte+do%27ie+trimaran&source=lnms&tbn=isch&sa=X&ei=mpOBVZ75E4v6ULW-gaAl&ved=0CAcQ_AUoAQ&biw=1280&bih=695#imgrc=Fohjyzi525iXYM%253A%3BCYKcpuU1c90CzM%3Bhttp%253A%252F%252Fwww.nauticaltrek.com%252Fimages%252Fdecouverte-de-l%3B403%3B362)

**Charles**

June 17, 2015

Hi Jerome,

I think it's safe to get on with making a foil profile leeboard while you continue thinking about CE versus CLR. What do you think?

**Michael Mangus**

June 18, 2015

Something noticeable in the pictures is the apparent asymmetrical ama shape. The original designer may have intended the amas to act as lateral resistance by developing lift towards the inside of the boat. The leeward ama would be deeper in the water and develop more lift than the windward ama, thus countering any leeward drift as the boat sails. That would account for the lack of a daggerboard/leeboard/centerboard in the design.

If it isn't working as intended, a center foil is the way to go. As noted above, it would be pretty easy to add a side daggerbox or a leeboard to the center hull.

**Anthony**

June 19, 2015

Great looking boat - thanks so much for sharing!

**Jerome**

June 20, 2015

hello, thank you all, I am grateful for your comments and for sending additional links. Michael, I think you are absolutely right and thanks for pointing this out, it does make sense indeed. I have sent more pictures to Joe so you will see more details about the boat. I had a good chat with the sailmaker and for now we are going to make minimum changes in the sail area and rigging and I need to do more trials. I am taking onboard all the suggestions received: daggerboard, pate d'oie stay.. I looked at the pictures that Ian sent and the trimaran from Meade Gougeon looks very much like mine.. the sail plan is interesting. My jib is much bigger than the main sail, and I think that eventually I will need to get a smaller one. I can furl it for now when I do my trials. I can't wait to get the main sail adjusted (putting reefing eyes) to do more trials!

**samuel vermeulen**

June 23, 2015

hello

where can i buy tis plan from this trimaran snowgoose

greeting samuel

**Small Tri Guy**

June 23, 2015

Hi Samuel,

There are no building plans for this boat available.

# Mohawk Canoe Converted to Trimaran

June 19, 2015

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: canoe to trimaran conversion, mohawk canoe trimaran

## Comments

**Michael Mehalko**

April 16, 2017

Thats so cool.

**Adam Grant**

June 26, 2017

Love it! Do you have any more info on the peddle drive you can share?

**Adrian Copaci**

March 28, 2021

Please tell me where I can buy the floats in the picture. I have a canoe and I want to sail it.

**Small Tri Guy**

March 28, 2021

The floats come from an old Windrider trimaran ... you probably wouldn't be able to buy just the floats from Windrider.

# Trimaran Innovant Concept in France

June 25, 2015

Categories: Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Trimaran Innovant

No Comments

# Hybrid Daggerboard / Leeboard for Self-Built Boats

July 1, 2015

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Daggerboard, how to build, Leeboard

## Comments

**Stefano**

July 2, 2015

(...) In response to Ian on leeboard daggerbord concept:

"I've never actually built one full scale and there are certainly places where it could fail to work if not engineered and built properly, but I'm very confident in the basic idea.

I'd love to hear Stefano's opinion of the idea."

Ian, thanks, this is flattering, however I'm afraid I'm going to be deceptive on this one...

The fact is I just do not like leeboards and do not trust them (bad experiences with plywood ones, which were ill conceived and poorly engineered in ply I must admit).

But what problems are we actually looking at? To me discussion boils down to 2 points:

1) Fiddling with leeboard position until Center of Lateral Resistance is found (CLR) in relation to sail plan and different speeds

2) building something that will not be obtrusive in the main hull, and will not brake in case of grounding

My approach is quite different:

1) I build the daggerboard case starting at about 0.5-1 ft behind the mast, and ending perhaps 1.5 to 2.5 ft aft, where its flat top can provide strong bracing support to the hull sides, exactly where the mast forces will put the maximum strain, greatly reducing torsion tendencies.

ONLY THEN, I fiddle with jibs sizes and perhaps bowsprits (I love cutter rigs or jib+gennaker or rolling code zero set-ups up front).

The top of the daggerboard case can act as a seat for rowing, can be prolonged into a single berth, is a handy step when you board or have to reach for some stuck halyard etc. I also store ice bags under the daggerboard level seat, on the two sides of the daggerboard trunk...So many reasons not to bother with another solution. But what if you ground at speed? Point (2) steps in.

2) I find that the genius of Mr. Herbulot - french designer of famous "vaurien" (contraction of "worth nothing" in french) and other sensible ply boats that sold in tens of thousands, gave a very valuable solution:

<http://www.divisionvela.com/tienda/images/orza%20vaurien%20ok.jpg?osCsid=pia599t51k5gpsjh95m4l51qm4>

The daggerboard is cut with a narrow head and a curved leading edge. The curve in the front acts as a large pivoting point should the board hit. Another curve and slant cut is placed at the bottom leading edge. If the boat hits, the daggerboard rotates aft and pops up about 10 inches, which is more than you need to avoid breaking board or case and pass over the isolated - unseen - obstacle. I keep it in upright position with a bungee chord as in laser dinghies. I struck the board several times with no big fuss (an indent in aft board edge) but if you really want to be fussy, you can think of building the daggerboard case slightly larger and place two rubber silicon tubes or other appropriate foam forward and aft as shock absorbers.

If this is still not enough, the good old pivoting board assembly, although it eats up much space inside the narrow main hull (but could be set under a self draining floor) is still a very valid solution for both points in question, especially if you consider borrowing efficient narrow high aspect foils. I would suggest as an example "class A" modified carbon daggerboards.

**Jerome**

July 5, 2015

Hi Ian and Stefano, I did another sea trial today with Snowgoose..! I had extra weight for the battery because I fitted a small electric outboard engine. However I am not there yet because 1/ the wood bracket for the outboard broke and 2/ the boat was nearly impossible to steer.. I had put the battery in the cockpit by my feet and I think it didn't help, too much weight at the aft.. It was quite windy again, I had taken a reef in the main sail. I posted a video on Vimeo and it is uploading slowly, I will send the link. I need to increase the tension of the forestay, you will see on the video, it is very loose. I will continue the trials but think that I will eventually need to put a daggerboard, the boat is really too hard to steer. It is very tricky. It was even worse this time, the changes were a reef in the main sail and the extra weight of the battery..

**Stefano**

July 6, 2015

Jerome bonjour! Putting weight aft makes any boat, especially slender hulls, prone to go to leeward, and it puts a huge strain on the rudder. Be careful not to find yourself with a broken rudder in the open sea. If in doubt, put a couple layers of X biaxial glass set in epoxy over the rudder blade ( 2 layers of 220 grams each) and make sure the rudder head is also VERY robust...

The best solution is surely putting a daggerboard or leeboard somewhere as soon as possible.

In the meantime I would use the tri only with the reefed main, sitting in the middle of the hull and then moving forward while tacking ( immersing forward sections i.e.). These 3 simple things should do the trick.

Last but not least remember that more tension on the shrouds, means more compressive strenght downwards on the mast foot. If this is inadequate in structure for the efforts and forces in play, you may find your boat with a hole in the hull or with shroud points torn off the hull if too close to the hull (happened to me twice).

**Jerome**

July 6, 2015

Hi Stefano, thanks for your post, I will do this next time! It would be a shame to break something indeed. I need to find a way to put the battery well at the fore of the boat. I see what you mean regarding shrouds too close to the hull. Here attached is a video!

<https://vimeo.com/132688401>

**Stefano**

July 6, 2015

Jerome, I can see you have a pair of extra shrouds on the hulls, this should reduce the strain and downward compression on the mast step.

as for the video, please do the best to keep the camera still while recording on some pole or turn around the boat veery slowly. Images like the ones posted on vimeo are barely intelligible...

**Stefano**

July 7, 2015

... I just ended reading the three articles that I had skipped unadvertedly...

well, the basic sound approach suggested by Kohler seems the most attractive to me. His board resembles much that of a Vaurien, and the case needs not to be slanted if the HEAD of the daggerboard is. It will pop up from pressure against hitting the bottom.

Now, if the bottom is actually a full rock of granite as someone suggested, appearing right in front of you when speeding full throttle (15 knots) against a very close shore, then I would re-direct you for first hand advice to a now worldwide notorious italian captain (sigh!).

**ian**

July 7, 2015

Hi Stefano,

Thanks for your comments; I understand how one type of board or another can be far preferable just based on experience- I feel the same way about daggerboards after having a couple of major catastrophes.

That said the number of times I've grounded daggerboards and \*didn't\* suffer any damage is far more than the bad hits, but that was probably a function of boat size as much as anything...personally I think that daggerboards become more and more of a crash liability as boat weight increases and inertia won't let the boat just stop cold. So while they are perfectly fine on something small and light like a dinghy or small tri, I'd be wary of one on a larger boat with some mass behind it when it moves.

One other issue to consider is that not all collisions will occur at the board tip so angling the bottom of a daggerboard won't necessarily cause it to pop up if you roll over a log or some other debris- probably not a big worry for small coastal cruisers but worth thinking about for offshore boats.

Snagging lines or even a boom when the board is up is another issue with a daggerboard inside the boat that causes me to put them last on my list. If you think ripping your daggerboard trunk apart by running aground is embarrassing, wait until you trip and fall into it while in the raised position and do the same thing at the dock :)

The crush block thing seems like a good solution to minimize trunk damage but personally I like the non-destructive solution of just letting the board swing over the obstacle and keep going, combined with not having to have a submerged trunk...part of the original impetus for this outboard mounting scheme was for use in a skin-on-frame tri application where a traditional trunk of any kind would be a technical nightmare...also, traditional leeboards have a nasty habit of redirecting water through the narrow slot between hull and board up into the crew areas, so moving the board away from the hull seems like an improvement that tris could take advantage of, without the docking issues that leeboards present on a monohull.

So really there's two principles at work here- the board motion which could be swinging \*or\* up and down (or even fixed, I suppose), and the placement of the trunk(s) outside of the hulls, (which also allows for asymmetrical/canted boards with toe in that can improve pointing ability, something else most tris aren't naturally blessed with).

I understand a preference for one motion over another but getting the trunk completely out of the boat seems like it has very little downside and a lot of advantages, especially if you can integrate the mechanism with the aka structure and/or related seating planks that are already there and are a major strong point.

**ian**

July 7, 2015

Hi again Jerome,

After looking at the newer pics of the mast/rig I can see that I originally got the jumper strut arrangement backwards and missed the third strut pointing forward, which is not only an old design but a very unusual configuration that was probably very boat specific when built. Here's an early example-

" PIRATE had still not been assigned her R-11 racing number but has already acquired the long jumper strut on her headstay. This was added to reduce fore and aft bend in the top half of the mast."

<http://www.rboat.org/html/history/pirate2.jpg>

that kind of setup can also be used to avoid running upper shrouds to the masthead...this main mast has a more modern diamond strut arrangement with spreaders to eliminate upper shrouds and the mizzen has a single strut like yours but with uppers, that allow the mizzen mast head to be unstayed forward-

<http://www.sandemanyachtcompany.co.uk/uploads/512/02Stbdack.jpg>

That jib is more of a staysail and the upper forestay could certainly carry sail, so maybe it's not technically a fractional rig and more of a cutter yawl...but it does have a lower forestay aka "baby" stay terminating at the jumper strut base that seems not to be on yours, for whatever that's worth.

Yours isn't exactly the same and does have uppers but they go back to the mast and are on radically raked back spreaders...the "why" could be to act to take up backstay type loads off the wind, or maybe for genoa clearance, or both, or maybe it was a rule cheat.

If I had to bet, my guess would be that your rig is from something like a meter boat or similar narrow monohull racer or daysailer, from maybe the 1940's - early 60's...if there's no tang for a lower forestay at the forward jumper then there isn't, but the rest of that triangular arrangement looks like something that would have one and would be rigged like that yawl main mast, either a fractional rig or with jibs on two forestays...it's a real puzzler.

The video is a perfect example of bad lee helm and it's a real sickening feeling for sure...better weight distribution will definitely help but weighting the ends too far can create other issues with boat motion and sea handling, especially weight in the bow(s)...but still I reiterate that you need to figure out the boat's proper performance stance before worrying about hitting the lines in the plan view...low volume with little reserve buoyancy in the ama sterns is going to force you to favor weighting the bows and in the end the boat may sit somewhat awkwardly with nobody aboard or may need more constant adjustments underway to stay in trim than something with fuller ends. Lightness is your friend here.

Ultimately I think you can make this rig work in some form, but I'd strongly suggest weighing any expensive fixes against the cost of swapping for a more modernized non-wooden spar donor rig that would cut overall weight and could be raked more safely or even stepped further aft if needed without moving all that weight back where you have little buoyancy to spare.

I'm all for repurposing and adapting and mixing old and new, but the bottom line is that this rig is kind of like putting a Model T motor in a brand new Corvette instead of doing it the other way around; one is a hot rod and the other is a dog. It's a very nice rig that was obviously well thought out and hasn't broken and is well cared for and is close enough to be made to work to some degree I'm sure, but it would really be better suited to a Folkboat or other classic monohull in that size range, and you could open up your options considerably with a rig designed for something closer to a boat like yours.

Until then Stefano's comments are all right on and if you still have that terrible lee helm when sailing under main alone then probably no safe amount of ballasting the nose will come close to fixing it and you'll definitely either need to add a board or alter the SA and/or fore and aft rig rake or even placement, all would probably be optimal but a heavy rig will limit how far you can rake or move things aft with so little freeboard to spare back there.

**ian**

July 8, 2015

Hi Jerome,

I think I may have solved the puzzle and it was staring me right in the face- after further research it appears very likely that the mast on your boat may have originally been a mizzen mast off of a larger yawl.

The size is right, and this could explain a lot of things from the unusual spreader/strut configuration to how it got separated from its original boat...it was fairly common for older racing yawls to shed the mizzen for certain races or do away with them altogether just based on a new owner's preference; some boats designed as sloops would just stick one on to rate as yawls if there was space and then dump it later. Since they aren't a direct swap for a typical sloop rig and not in high demand they are often available in decent condition for cheap.

That triangular strut design would make sense on a yawl mizzen where the angles and space available for full sets of shrouds aren't great and you can't run a traditional backstay or forestay...this could also explain why it isn't set up for a fractional forestay but the masthead is set up for running backstays \*and\* the rig has those raked back spreaders.

If this is the case, the masthead tang you are attaching your forestay to might have been for a triatic stay running to the main masthead or possibly it held a halyard block for a mizzen staysail that would be loose luffed and not on a tensioned forestay.

I may be wrong, but that single forward strut configuration just isn't that common anywhere else but on older yawls, especially those designed by Sparkman & Stephens, Rhodes, etc. from the 30's through the 50's Here's a few examples that seem to bear this out...note the swept back spreaders in some of them that are doing something similar you yours-

<http://www.sandemanyachtcompany.co.uk/uploads/572/03Stbdbeam.jpg>

<http://www.sandemanyachtcompany.co.uk/uploads/577/03Stbdbow.jpg>

<http://s234.photobucket.com/user/CharlieCobra03/media/OhJoy.jpg.html>

<http://www.sandemanyachtcompany.co.uk/uploads/512/03Stbdbow.jpg>

<http://classicsailboats.org/wp-content/uploads/2013/04/Finisterre.jpg>

<http://www.charterworld.com/news/wp-content/uploads/2012/03/Sailing-yacht-Dorade-Credit-Billy-Black-.jpg>

[http://www.classicboat.co.uk/wp-content/uploads/2012/06/IMG\\_5046.jpg](http://www.classicboat.co.uk/wp-content/uploads/2012/06/IMG_5046.jpg)

[http://www.windigodesign.com/images/sampledData/Windigo\\_Yacht.jpg](http://www.windigodesign.com/images/sampledData/Windigo_Yacht.jpg)

<http://www.sandemanyachtcompany.co.uk/uploads/288/01Mooredabeam.jpg>

**Jerome**

July 9, 2015

Hi Ian and Stefano, thanks again for your comments. Stefano, I will try to move my head a bit less next time to get a better video :). I am grateful for all the information that you shared, thank you very much for this. I am taking exactly that approach, trial and errors, making small adjustments.. I have now bought a longer battery cable so

will be able to put the battery further fore, actually I am thinking of putting it just behind the mast. It will be about 20kg weight. I also need to re-fix the bracket on the beam for the outboard motor. Question for both of you: could it be that a headsail that is too big, and also too much fore, moves the CE to the fore of the boat and it is the reason there is a lot of lee helm and the steering problems? If for example I was installing a second forestay that would be fractional and be attached on the deck further aft of the bow. If I could do this, I would also get a much smaller headsail. I looked again at the trimaran that Meade Gougeon built and it is how his standing rig was set up.

**ian**

July 9, 2015

The size and location of the rig's foretriangle definitely affects weather/lee helm \*but\* it is a complicated dance of separate elements at work so no single alteration is likely to do as much as adding more lateral resistance in the right place.

Also keep in mind that sloop rigged sailboats with properly laid out CE/CLR relationships and the ideal touch of weather helm can track and maneuver reasonably well under either main or foresail without experiencing the degree of lee helm shown in your video, same goes for ketches and yawls designed with all of the sail in mind, that can sail under just a main or jib without a huge change in steering...

jib size matters, but even the biggest headsail you can hank on won't matter that much unless the CE/CLR is seriously unbalanced to begin with or you are overcanvassed and driving a boat hard to weather.

To my eyes your main is certainly large enough to counteract the size of the foretriangle as currently set up; but the pressure of the combined sails is just too far forward of the current lateral resistance of the combined hulls, fins and rudder. Even the main alone can create too much imbalance if the relationships aren't right.

A fractional rig or moving the headstay chainplate aft or raking the masthead aft are all moves in the right direction that are less involved and problematic than moving the entire rig aft, but most importantly none of those fixes may be necessary or worth the effort with the right board altering the CLR to where it needs to be to steer properly.

It's a project, but also one that will set you up to swap out to a newer/lighter rig later if you choose, without having to go through all the trial and error of matching things to hulls with less than ideal lateral resistance.

**jerome**

July 9, 2015

Ian, I understand. I suppose I need to go down the route of small alterations and see what happens... I can't wait! What I am wondering is that the designer of the boat didn't think there was a need for a daggerboard/leeboard so in theory the boat should be able to sail without one and in this case I am hoping you are right that with the right mast and rig it should work? Or do you think the designer may have got it wrong and I will need one anyway? I do like the option of swapping the entire rig for a more modern one. I will not actively pursue this option right now obviously but will keep in mind. Thanks again!

**ian**

July 10, 2015

Hi Jerome,

Judging by the first the picture in the other thread about your boat I'd say that regardless of their location the ama mounted fins simply aren't big enough to keep that rig on a steady track.

Those fins are very close to what Aurthur Piver used on many of his tris, and they were just not up to the task for weather work- the inefficiency was less noticeable on the hard chined designs with V shaped amas contributing to better tracking and lateral resistance, but still saw a huge performance increase with a Norm Cross keel or dagger/centerboard installed on most points of sail.

You might be able to make it all work with a vastly smaller rig that doesn't develop much power but even then your pointing ability would likely not be great with just that fin and relatively smooth and non-vee'd hulls.

Your main hull appears fairly rounded and not deep and the crease at the bottom of the transom doesn't look like it continues very far forward or goes into a hard keel like structure, so there's probably not much there to keep you going straight.

A reasonably easy way to help would be to install a central strip that mimicked the exposed keels seen on many small plywood boats. Like a "rub strip" but taller- a 2" tall strip 12' long is 2 sq. ft. of lateral resistance area that you need but also it could add a great deal longitudinal stability that will let your rudder work to steer the boat *off* track when \*you\* want to, rather than all the input going to keeping it on track as the powerful rig sends it wandering.

A dozen or so feet of that kind of keel strip might add enough area to move the CLR forward and get you to a more controlled state that is tolerable- two square feet of area is still smallish for a board for a boat that size imo, but if you placed this strip starting at the stem, its CLR would be 6' aft of your bow and could have an amplified effect on the overall boat CLR compared to something like adding that area where the existing fins are.

One other thing to keep in mind is that monohull practice is for CE to "lead" the CLR in large part because of the effects of heeling that add weather helm. A tri presents a different footprint with the ama adding lee helm inducing drag. The amount of "lead" needed to match a tri hull to a rig is far smaller and so aside from the size of the existing fins the designer's best guess for mast step placement may have been off.

This gets pretty technical and is focused on monos but has tons of great info on designing for CLR/CE balance and longitudinal tracking (resistance to yaw) that you can make use of, and describes how frustrating it can be even for pros-

<http://www.hiswasymposium.com/assets/files/pdf/2012/Claughton%20HISWA%202013.pdf>

**Wade Tarzia**

July 11, 2015



I use two long rails (T6 allow square tube) spaced out and bolted to wooden bearings on the hull (wedges spiled to the hull curve) such that my leeboard can slide up, kick up, and slide back and forth for huge CLR changes. I devised the system because I intended to sail my outrigger as a shunting proa but changed my mind as the build was completed — even so, the large adjustments possible to the leeboard were useful as I experimented with different sail rigs, and for downwind runs, the board could be pushed and tilted back for a skeg-effect. It was a simple build, though two disadvantages: the lower rail/bearing can drag in the water depending on conditions, and the leeboard does get scuffed up when I drop/lift it through the rails during set-up/take-down. Coating board and rails/bearings in epoxy-graphite helped somewhat (ie, better than paint).

### Small Tri Guy

July 11, 2015

Hi Wade,

I'd love to see a photo or two of your board. No pressure here ... but if you get a chance then send me a couple of pics and I'll publish them as an addition to this post. (And thanks for sharing this, by the way!)

### jerome

July 12, 2015

Ian, thanks again for your last post, I am reading it, and also re-reading your other posts to assimilate the information you share. Yesterday I was successful in installing the bracket for the outboard, so now I have control if anything happens.. ! I just hope that a 54 thrust is sufficient, I haven't tested yet! I also moved the battery further fore and it is sitting just at the front of the mast. There was also an ideal space just behind the mast too, about 1 meter away, it looks like it was designed for a battery, however without much ventilation so I decided not to use it in the end. I will see how it goes.. If necessary I can probably add some ventilation holes. Your suggestion to add a strip under the current keel is a very good one and perhaps easier than adding a daggerboard. I have a number of options now I think and it is much clearer in my head what I need to do:

1/ reduce headsail size – on most tris I have reviewed, the headsail is always smaller than main sail – mine is one third bigger (14 square meter versus 11 square meter). I think I need to aim for half the size

2/ move the headstay chainplate further aft – by let's say 50 cm – on most tris I have reviewed it is where it is – Question is: is 50 cm sufficient?

3/ Make the rig fractional – from the tri pictures I have reviewed, the position of forestay on mast is about 1/4 from the top – I think I need to do this along with option 2.

4/ Change the rig : replace mast- by doing this I will probably get the fractional rig so I am addressing option 1,2, and 3 in one go. By doing this I will reduce the weight of the rig too

5/ Install a daggerboard behind the mast or keel strip as per your last post. I can do this once I have done the options above and still have problems with the lee helm and steering

Based on your feedback, I am more inclined to go for option 4 straightaway and go from there to fine tune and possibly do option 5.

### ian

July 15, 2015

Hi Jerome,

I think you are on the right track unless the main by itself creates an unbalanced CLR/CE situation, in which case you'll need to move one or both of those reference points with something other than jib area changes.

I do like the idea of moving the forestay aft and you could experiment without any permanent modifications. Going fractional on that mast spar would probably require a different forward strut arrangement, which in the end might be as much work as just adding traditional spreaders and upper shrouds and/or traditional forward facing diamond stays, which would be more predictable to tune.

The other thing you could try fairly easily is to rake the mast aft, which could significantly alter the CE to your advantage and could help tension your forestay as well- the only problem is that your upper strut arrangement as is isn't really designed for that kind of geometry.

FWIW, the fractional rig you describe with half the current working jib area is pretty close to that of the International Lightning (16.4 m total) or 505 (16.26), a Flying Dutchman rig is slightly larger at 18.6 m-

[https://en.wikipedia.org/wiki/Lightning\\_%28dinghy%29](https://en.wikipedia.org/wiki/Lightning_%28dinghy%29)

[https://en.wikipedia.org/wiki/505\\_%28dinghy%29](https://en.wikipedia.org/wiki/505_%28dinghy%29)

[https://en.wikipedia.org/wiki/Flying\\_Dutchman\\_%28dinghy%29](https://en.wikipedia.org/wiki/Flying_Dutchman_%28dinghy%29)

All are (or could be) set up for a significant amount of rake and would make for good donor rigs or could be a source of spreaders/struts and hardware to alter your current stick to something similar- at the very least those and similar sized dinghies and keelboats are good points of reference, that with a larger roached mainsail are very close to what you describe.

A Hobie or Prindle 16 or similar sized beach cat mast spar could probably be made to work too; all are just barely under your current spar's height...which is something else to consider- the lower your mainsail's aspect ratio is, the CE will move farther aft, so an overall mast height reduction while keeping maximum mainsail roach could also help with your helm balance issue, especially when combined with rake.

# Self-Built 16 Foot Trimaran Sailing

July 14, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Self-built trimaran, small trimaran

## Comments

**Mike Perras**

October 18, 2016

Thanks for sharing my video.

**Small Tri Guy**

October 18, 2016

Thanks for taking time to show your boat under sail Mike.

**EURO CHAVES**

February 21, 2019

Hi

Mike

I like know if possible complete project of the trimarã.

How much price?

**Glenn**

August 15, 2021

Are there plans for this boat?

# Eureka – A Solo Trimaran Meant for Serious Ocean Cruising

July 18, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Eureka trimaran, WoodenBoat Magazine

## Comments

**Stefano**

July 19, 2015

Looks like the central cabin concept is gaining favor. This enclosed cabin small tri with double steering potion reminds me of the monohull Souriceau, also in wood by french architect Henseval. Short but tough and supposedly ocean capable.

5 ft draft on such a boat sounds more like a resistance to speed than anything else. A foot or even 1.5 less would certainly do the job of preventing leeward motion especially if any decent speed is anticipated.

**Stefano**

July 19, 2015

On this tri, I do not think you could expect more interior space than on "souriceau" by comparison, a 16 ft monohull on the wide side...

<http://www.hensevalyachtdesign.com/monocoques/souriceau-4-75m/>

Otherwise the larger 19 ft brother "aviateur" offers a similar concept in a slightly larger version

**Joost**

July 20, 2015

It appears that the solo sailor has to stay inside his cabin all the time? That does not sound so attractive on long ocean voyages. Pale skin instead of a tanned one ;)

**Small Tri Guy**

July 20, 2015

Hi Joost,

No, there is a small cockpit behind the dome interior (and just in front of the rudder) that would allow for the sailor to get out into the air and sail the craft from outside (if he/she chose to do that). The complete article inside WoodenBoat Magazine offers lots of details about Eureka's proposed features.

**ian**

July 22, 2015

I haven't read the full article yet but as a general comment it's worth considering that the typical racer/cruiser compromise boat usually works out better for the cruising end of things as far as actual performance goes, while the benefits of cruiser-like qualities added to a racer platform tend to be in increasing the potential owner/user pool beyond just racing enthusiasts, convincing reluctant spouses to approve the purchase, etc. Race boats made more comfortable and/or robust are often much more pleasant for it, but not faster.

In this case I just don't see much of anything that appears to be a concession to coastal cruising, which to me involves more/shorter passages and exploring, and time spent \*not\* sailing....something this design doesn't seem to give much thought to at all.

A major benefit of a fast cruising boat is being able to cut weather exposure times, and combined with making more and shorter coastal or inter-island hops and the availability of modern weather forecasting it's pretty easy to avoid most truly hairy situations where you'd need to secure yourself below...but this tiny boat still dedicates a lot of space and equipment to just such a weatherproof steering station, in addition to an exterior cockpit with redundant steering.

That "Joshua bubble" with auxillary steering makes sense and adds to crew comfort if you are racing and are going to drive the boat hard until something breaks, or are going to be way offshore on some blue water passage with no other options but to go below and hang on, but unless you do all of your coastal cruising in very rough/cold weather this worst case scenario setup with no real cockpit space to stretch out or visit with people in or dive/fish from during the other 99% of the time when you aren't holed up and steering would be a deal breaker for most people I know who cruise.

Other than it has a bunk, I just don't see anything about it that appears to be a concession to typical cruising use, and a lot that would make it less than ideal for anything \*but\* adventure racing.

It's not a super modern racing hull style, but it is still more race derived than anything and is very reminiscent of Dick Newick's early offshore race tris like Moxie and Three Cheers, which were known to prioritize crew space and comfort well below performance considerations...

and even at that, with a much larger boat and all that available space and his legendary lack of concern for cruising comfort, Newick still made the cabin width on those boats extend past the main hull's max. beam-

[http://www.patrimoine-maritime-fluvial.org/BDDDBIP/fichiers/Photo\\_Accueil\\_4.jpg](http://www.patrimoine-maritime-fluvial.org/BDDDBIP/fichiers/Photo_Accueil_4.jpg)

<http://www.wingo.com/newick/rogue-ext2-1.jpg>

<http://www.multisailing.com/phototheque/24431%20Tri%20Newick/24431-001%20Tri%20Newick.jpg>

Stefano is giving this boat a lot of credit when he suggests that it might even come close to having the same accommodations as the 16' mono he linked to; this main hull is far narrower and doesn't even take advantage of the tri's ability to widen the cabin out even just for some elbow room.

2/15/23, 7:38 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Again, makes perfect sense on a dedicated racer, but the designers didn't even make that small concession to in-harbor livability and crew comfort while traveling- on a tiny boat that also doesn't have a proper cockpit to hang out in, \*and\* uses up part of what cabin space there is for redundant steering that in most cases will never truly be necessary.

**agur**

July 26, 2015

Newicks Tremolino comes in mind in first place. But I like that old-school hard-core wooden-boat-&-iron-men overall look.

Also I like the attachment of the amas. Seems pretty versatile derivation from Pacific outrigger canoes and proas. Seems that you can replace the attachment with dyneema lashings if the aluminium (probably?) straps will fail far away from the pit stop.

I wonder what would be the construction method that this design is aiming?

# Lorient to St-Barth Ocean Crossing in Trimaran Abandoned

July 20, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

## Comments

**Stefano**

July 21, 2015

Some beach cats modified for the purpose made it across the Atlantic, even a klepper double foldable singlehanded did. But they never ever dared to start as north as this french team did.

IF such small boats are to be thought to be even slightly "ocean capable" they surely are only in moderate following tradewinds...

**agur**

July 26, 2015

Here is truly legendary story of two lunatics (professional ones, though) crossing the Atlantic from Dakar to Guadeloupe in year of 1986 (pre-GPS) and with standard H o b i e 18.

Facing the dark side of the trades they arrived in Guadeloupe half-starved / half-dead, but they did it, despite pretty dodgy conditions:

[http://www.sail.ie/misc/cats\\_atlantic.htm#Tony%20Laurent%20and%20Daniel%20Prada](http://www.sail.ie/misc/cats_atlantic.htm#Tony%20Laurent%20and%20Daniel%20Prada)

And of course there is Beto Pandiani and his various crews who have been sailing their beach-cats basically in all the oceans of the planet

<http://www.betopandiani.com.br/expedicoes/travessia-do-pacifico/>

Regarding sailing those small open multihulls in the open seas – there is also Yvan Bourgnon who completed his circumnavigation recently:

<https://www.youtube.com/channel/UCUfCIXpcSF-olJ0BZx2ISUQ>

**ian**

July 29, 2015

Those were some interesting links, thanks, Agur.

To quote Johnny Carson, "That is some weird, wild stuff...I did not know that"

Stafano's points are well taken and correct, but playing devil's advocate and setting aside the possibility of wave conditions that could sink nearly any vessel- if I were recommending a mostly stock boat for this kind of challenge I'd say that a typical 16-18'+ beach cat or similar tri daysailer like the M23 is probably at least as good a bet if not better than a typical monohull analog, just based on the ability to make quicker transits, and the lessened danger of swamping and/or sinking, plus even if it flips you \*might\* be still able to ride it out till help arrives.

Of course this is all assuming you are in water conditions that won't kill you more or less instantly...that's the bottom line, the people on board are usually the weakest link that gives out long before the boat does.

Wind/sun/saltwater exposure and hypothermia are usually the most serious threats faced in long offshore open boat passages, that are still always lurking no matter how robust the boat is and even in mild temperatures and fair seas...in fact, not enough favorable wind and current can be a potential death sentence on a small boat passage like this if you get stuck and your supplies run out, as happened to Ed Gillette when he kayaked from California to Maui in 63 days instead of the planned 40-

*A thousand miles southwest of my starting point I found the other nightmare — not enough wind. I was becalmed. In these conditions, I dried my sleeping bag and clothing and my skin lesions healed, but my progress slowed dramatically.*

*"This can't be!" I shouted at the empty blue sky. For about the 50th time, I looked at my pilot chart. Sitting motionless in my kayak in the middle of the Pacific Ocean, a thousand miles from land, I cursed the winds that had abandoned me.*

*There was no swell, no wind, no sound. Without the steady, boisterous trade winds and the westward current they spawned, it would take me two additional months to reach the Hawaiian Islands. I did not think that I could survive that long. I had been at sea in my 20-foot kayak for 30 days. I was much thinner and weaker than when I began my trip.*

<http://www.legendinc.com/Pages/MarbleheadNet/MM/Articles/EdGillette.html>

But even in the most extreme hypothermia conditions, there are still people like Baron Arnaud De Rosnay who managed to cross the Bering Strait in 8 hours on a late 70's-era windsurfer, and also did an epic 11 day/750 mile south pacific passage from Nuku Hiva to Tahiti before being lost at sea trying to cross the 81 miles between China and Taiwan-

*While preparing to cross the Straights of Formosa, the Chinese say they offered him a support boat, but the legend decided to go it alone and snuck out a day in advance of his scheduled departure. The Straits were in a particularly savage mood that day, with very strong winds, huge swells and reports of big ocean rollers actually breaking in open water. The Baron simply disappeared without even the slightest trace.*

<http://windsurfing-legends.org/arnaud-de-rosnay/>

**ian**

July 29, 2015

Speaking of Johnny Carson...

2/15/23, 7:38 PM

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Ed Gillet recounts his 2400 mile open water kayak trip on the Tonight Show, September 1987

<https://www.youtube.com/watch?v=fZQgQM53zIM>

# Corsair Pulse 600 Trimaran Review on MySailing.com

July 27, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Corsair Pulse 600 Trimaran, Corsair trimaran review

No Comments

# Ezifold Yachts Acquires Rights to Sell the Bazooka Trimaran

July 30, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Bazooka Trimaran, Ezifold Yachts

## Comments

**ian**

July 30, 2015

Nice to hear about someone adding another option to the 10'-16' range of tris, that just isn't given a lot of attention by manufacturers.

There's a lot of sensible reasons for that, mostly having to do with not being able to manufacture and market smaller, cheaper boats in the volume that would make up for the lower price point.

Any unit no matter how small will have to recoup its portion of whatever fixed costs come with the business/manufacturing operations, and since materials are often a smaller overall factor than the rent and taxes and other fees required to just have the doors open whether you sell anything or not, everything gets bigger to adjust the 'bang for the buck' ratio to attract buyers.

So it isn't a market craving giant burgers that will feed three people that drives the decision to offer them; it's the fact that in that market the burger \*has\* to cost a minimum amount just to break even selling them, and people won't pay that much for a normal sized burger no matter how good it is...they will choose a huge burger but only because the market is skewed by costs that aren't related to the actual cost involved in creating food.

In other words, if you offer a 24' tri for \$30-50K and need to sell 10 of them a year to cover all of the fixed non-material/rent/labor/taxes/regulatory business costs, you'd need to sell 20 12 footers at \$15-25K to generate the same revenue...

the "buck" part of the equation goes off the charts in relation to the ever decreasing performance/accommodation "bang" as the LOA goes down.

All of which came to mind when reading the press release and other links...it's offering a lot of cool features and modern materials, so it's probably not dirt cheap...is there any projected MSRP at this point?

Also they speak of acquiring the molds but their FB page says-

"Watch this space for details on this new design the only thing the same is the brilliant name "Bazooka the roof rack rocket" and the "Boat n a bag" concept originally conceived by the very clever Paul Muller....."

-which along with "completely redesigned" in the press release suggests that the hulls are not being made from the original molds...perhaps that part of the negotiation with the previous owners was to get possession of them to prevent anyone \*else\* from using them...?

Anyway I wondered about this after looking at the older Bazooka post and noticing how this thoroughly modern small tri design that can't be very old has hulls styled in a manner that is already somewhat dated by current standards.

Which is funny since plumb bows were a very antiquated design style seen mostly on old motor vessels until multihulls and other ocean racers started using them in the last few decades and they became the in thing to have, only to be replaced by reverse stem profiles in the last few years.

It sounds like the revamped rig, akas and folding system will be re-styled and updated but the press release and other material is confusing as far as the hulls are concerned- are they from the original molds, or completely redesigned from scratch as the press release and FB page suggest, or the original shape with modifications to update the looks/performance?

Any of these would be fine from a performance standpoint, but making sales with what has to already be a fairly pricey item for its size might be more difficult without state of the art hull design/styling, even if it does nothing of any consequence for overall sailing performance.

Regardless I wish them well and would LOVE to see this kind of tri sell like crazy, generate fleet racing and training and rental programs, create a used/parts market, etc.

**Small Tri Guy**

July 30, 2015

Ian,

You raise a couple very interesting points, which is why I've emailed the Admin manager at Ezifold Yachts in order to add some info to clarify things a bit. I'll post it when I receive that info.

**ian**

July 30, 2015

Thanks Joe- if anyone knows what the original boats sold for new and how that compared to other similar boats at that time that would be interesting too...to me at least.

I poke around online boat ads a lot and don't recall ever seeing one on the used market, I don't know how many were originally built but that kind of used market rarity is often due to customer loyalty for a particularly good make/model of boat/car/plane/whatever, especially when the manufacturer stops making new ones.

If that's the case and this one is a long awaited reintroduction that's even better than the original, they should do well and maybe the used market might loosen up a bit too as current owners upgrade.

**Brooke Johnston**



July 31, 2015

Hi Joe and Ian

It certainly seems that Ian might have had trouble sleeping but jokes aside he did raise all the same kind of questions one would expect when looking in from the outside and we thank him for his input.

In short, Ezifold Yachts LTD purchased everything Bazooka right down to remaining stock including a set of moulds that were also out of the Country with a so called licensed builder, For the prior owner said builder turned out to be very un reputable even though they are a very big name in small boats. The reason we purchased everything and not just the name, to make sure no MKI Bazooka turned up on the coat tails of the new design, it really is business 101.

So to clarify as stated in the FB release.

The design is completely new but will be recognisable in some small aesthetic way as a Bazooka MKII, again just simple design and business 101.

With regards to small boats and making a profit and numbers produced etc.

The Bazooka is far from the full picture of what is going on with everything at Ezifold Yachts HQ in New Zealand.

The Europe connection in the FB release gives some indication of what is also coming down the line.

From a purely business point if anyone thought they were going to put a single folding Trimaran model on the market and make a fortune from its manufacture then they are crazy let alone a very small one!

After all the old saying of "How do you make a small fortune out of building boats? By starting with a large fortune! has rung true in many cases.

However to include a very simple small folding Trimaran designed to be production built at the first stroke of the designers pen into an existing self funded business utilizing modern means of manufacturing with very limited finishing required straight out of the moulds, then this could be sound business. Only time will tell.

Thanks for your input Ian and thanks also to Joe for bringing this to our attention for reply.

We will release more information when we have news we believe worthy of release, in the interim happy boating everyone.

Regards

Brooke and Team Ezifold

**Small Tri Guy**

July 31, 2015

Thank you Brooke (and the Ezifold team) for your quick reply!

**ian**

July 31, 2015

Thanks for the response, Brooke..

you said-

*The reason we purchased everything and not just the name, to make sure no MKI Bazooka turned up on the coat tails of the new design, it really is business 101.*

That's why it was my first thought when the confusion arose, and I suggested it as a logical explanation :)

FWIW, I wasn't losing any sleep over any of this (???) but have been involved in a number of boat building operations over the years (including developing marketing materials) and am very aware of the pitfalls involved- the fact that entire sets of tooling for well realized designs are floating around and available for pennies on the R&D dollar to just about anyone who wants to splash hulls is testament to just how little control manufacturers really have over market realities.

So it was obviously a smart move to secure the molds; the press release just wasn't as clear on this point as it could have been.

*"...to include a very simple small folding Trimaran designed to be production built at the first stroke of the designers pen into an existing self funded business utilizing modern means of manufacturing with very limited finishing required straight out of the moulds, then this could be sound business."*

I certainly wasn't suggesting it wasn't, or anticipating/hoping for your effort's ultimate demise due to bad business practices or anything else, like I said it sounds like a potentially big hit and I hope everything works out well and that your success with this model might even spawn other boats of this type from other manufacturers who will be inspired by your success in a mostly untapped/nascent market.

That's important because contrary to popular opinion that kind of competition is \*good\* for the bottom line if merchants approach it right, and that kind of vigorous competition has never really existed in commercial trimarans of this size range...but that doesn't mean that a vastly increased demand can't be realized using (among other things) smart marketing.

Which I would have assumed includes responding in some manner to ballpark pricing requests when introducing a new model, if you didn't already do so in your press release and other marketing materials.

But your response seems to indicate that you and/or your company don't feel this information is "worthy of release" which is an odd turn of phrase usually heard from political press secretaries whose job is obfuscation...

most businesses would just say, "We're working on finalizing those figures" if they weren't ready yet and might even try to get contact info from interested parties so the marketing department could contact them the moment the info was available.

2/15/23, 7:38 PM

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Keeping that info undisclosed is obviously your call and certainly not unheard of as a marketing tactic, so I wish you well with what I have to assume is a "teaser" style marketing campaign and will revisit your offerings when some ball park pricing information is deemed "worthy of release".

**Graham Wheeler**

September 18, 2015

Hi Joe,

Interested to see Pauls great little trimaran is going to be built again, be it an updated version?? I own one and posted the photos etc on small trimarans site a couple of years ago. Didn't get much interest but I can say it is a blast to sail and super easy and quick to rig etc. You may remember I had a Supernova before that which I also posted on your site. I had a Farrier 18 as well which I sold and bought the only(I think) Newick Tremolino trimaran in N.Z. I've sailed that for two seasons so far. Love it and my Bazooka as well!!! I also own a Harriet proa designed by Rob Denny in Aus but To date I haven't had time to sail 3 boats. Will update soon. Cheers, Graham downunder in N.Z.

**Brooke Johnston**

September 30, 2015

Hi Joe

Just a quick update re Bazooka developments.

MKI yes the original is going back into production after strong interest and three (3) being ordered by a rental company in Queenstown NZ for this summer. Details are on the FB page with a link below. MKII BAZOOKA design is being worked on at a fast pace by all available spare design/engineering staff and she is looking great.

For Ian..... Pricing is still being finalised for Bazooka MKI one off sales. We can add the final price is hoped to bring start up sailing into the reach of more people.

We are negotiating finance options with a couple of lending institutions here in NZ for local market.

Thanks to Graham for the feed back on his Bazooka sailing ownership experience we are awaiting our demo boat to arrive from the North Island so that interested people may come and take it for a spin.

After a meeting with Paul and Brenda Muller Ezifold Yachts LTD will sponsor a Bazooka regatta which is planned for early 2016.

More details will be posted soon.

<https://www.facebook.com/pages/Ezifold-Yachts-LTD/212821925457790>

Kind regards

Brooke Johnston

Admin manager

Ezifold Yachts LTD

Christchurch

New Zealand

**Small Tri Guy**

September 30, 2015

Thanks for the update Brooke!

**Graham Wheeler**

October 10, 2015

Hi Joe,

Good to see the Bazooka is getting renewed interest as as I said before it is a great little tri and rockets along. On gps last Summer I could get speeds of up to 12+ knots easily. I put a 2 minute video on U tube -search Bazooka Trimaran and it will come up. Not the best video -I have others and will search them out and post. Also 3 of my Newick tremolino as well. Cheers,

Graham

**Brooke Johnston**

October 10, 2015

Just a little bit for everyone's viewing pleasure <https://www.youtube.com/watch?v=HpNdxp7uiHQ>

while we are working hard here at Ezifold Yachts LTD to put together what we hope will be very competitive pricing for the Bazooka MKI while the MKII design is finalised.

We are now finalising the scantling for the revised MKI for our suppliers meeting in 2 weeks.

Enjoy.

Brooke and the team at Ezifold Yachts LTD

**Tony W**

January 12, 2016

Hi Graham,

I just purchased a used Bazooka and am getting it shipped from NSW to WA. I was originally trying to salvage a used Supernova I purchased but found it has a bent mast which I am having difficulty finding a replacement for.

Was wondering if it is possible to fit a small jib to the Bazooka? Have designed a bowsprit but with the un-stayed mast am not sure if it will take a small jib?

Many thanks,

Tony

**Graham Wheeler**

January 19, 2016

Hi Tony,

I just checked to see what was happening regards the Bazooka tris. I usually sail my Bazooka in 10 plus knots of wind so haven't really found it needed a jib and being an

un-stayed mast maybe creates a problem but A small jib could be attached easily enough but you maybe better getting a mast for the Supernova. Getting a hobie 16 mast would be better than the Supernova one . Depends on what you want to spend?? I like the Bazooka as its quick to rig and get out sailing. Adding jibs and screechers just complicate things. Then you will want a centreboard to point higher etc. Look my e-mail is : gdw AT orcon.net.nz if you want to get in touch. I also sail a Newick tremolino tri and have a Denny proa.

Regards,  
Graham

**Tony**

January 31, 2016

Hi Graham,

Received the Bazooka last Friday and put it straight on the racks and off to the beach.

Did about 5 or 6 runs in Cockburn sound with varying loads and winds ranging from near dead calm to around 5 knts.

Performance wise it went very well, launched with near zero wind and whatever little puff there was the boat accelerated and sliced through the water, albeit very slowly but still it kept moving even in almost zero wind.

Out in the sound the air was cleaner and around 5 knots (no measuring so best guess) again the Bazooka sliced along very nicely, occasionally picking up gusts and accelerating very nicely.

For a non dagger design we had little if no problems with pointing, would have to say it probably pointed just under than my last cat that had twin daggers.

So on an overall performance basis with the loads and in the conditions we had I would give it an 8/10. Not a racing machine in the format we have but could easily be trimmed up to offer even better performance.

However if I was judging it solely on user friendliness and simplicity it would get a 9/10. I had so much fun sailing her just because of the sheer fact of ease. Easy to assembly, easy to rig, easy to launch with a kick up rudder and dagger boards, easy as to sail, easy to move around and exceptionally comfortable when compared to a small cat, and not to forget the feeling of security in such a small boat. My family have all sailed cats with me in the past, more often than not as a white knuckle express. Our last little cat whilst a nice and versatile boat always launched like a rocket with the smallest of breeze, all good if you want a racing machine (which I loved) but for the rest of the family they found it very un-nerving. Always worrying about capsizing, or the boom, or having to lean out to balance the boat, or the dagger boards and rudders when launching and beaching etc etc.

The first thing my youngest said to me when launching the bazooka was "ok, so what are the rules?" With the cat I had conditioned them to a reminder briefing of what to do when this or that happens. I can gladly report that with the Bazooka the performance is so stable and very predictable that I didn't need to brief him on the rules for "what if", just the normal life jacket and away we go.

So from a user friendliness perspective I would rate it 9+/10.

Another point worth a quick mention is that even with 4 on board we did not feel at all crowded, the layout with the centre foot well makes the tramp area and overall deck space much more usable.

In summary I can see in this design a brilliant little family boat that would suit people with a couple of kids as a great weekender. Chuck on a small 2 hp outboard and leave the sail behind and you have a great little fishing platform or estuary boat for summer.

It will be interesting to see where this design goes and what market it is aimed at in the near future.

**Toby Johnston**

February 12, 2016

Hi Tony

We are pleased to read your review.

It is great to see Paul's original Statement of design is being fulfilled by the Bazooka Trimaran and people are enjoying the boats as intended.

The reviewed boat is from the same mouldings that are now producing the Bazooka intro by Ezifold Yachts LTD under the "E3 Bazooka intro" brand.

The only difference's are an updated modern sail plan, designed in consultation with Ken Fyfe of Fyfe sails. Ken designed the last sail plan for Paul before he ceased Bazooka production.

The other difference is the Bazooka intro by Ezifold Yachts LTD is moulded using an epoxy compatible gelcoat then layed up with epoxy resin and fibreglass stitched fabrics foam then fibreglass and post cured. The design is lighter and stronger than the original Bazooka Trimaran.

Regards

Toby

**Tony**

February 23, 2016

Thanks Toby appreciate the feed back.

Regarding the sail plan we have been having some issues with the original design which is a zipper fit boomless on an unstayed carbon fibre mast.

Main 2 issues where:

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1. Sail tension. By that I mean being able to maintain the halyard (sail hoisting rope) and downhaul rope tension using the existing cam cleats. The ropes kept on slipping in the cleats and the sail would collapse and loose shape, a very frustrating issue.

2. Sail shape. Due to above but also even when tensioned the sail leading edge would wrap around the mast at the battens and make an awful shape leading edge.

Since encountering these issues I have done a couple of mods which should help.

Replaced Halyard rope with a slightly larger diameter rope which grips in the cam cleat much better, yet to sail so will be able to report back once tried.

Also came across a post on a soft wing sail by Wharram, his sail has a larger mast pocket over the mast which acts to shape like a wing. In this pocket he feeds all lines back down to the base of the mast. My first reaction was DHO forehead slap. I can do this with the zipper fit sail on the Bazooka, by feeding the halyard back down through the pocket it should stop the leading edge from rotating around the mast, this in turn should help maintain a better leading edge shape and reduce turbulence.

Also replaced the donwhaul line with slightly larger diameter which now grips better in the cam cleat.

Both lines are slightly longer which then allows me some tie off to wrap around and secure the cleats.

Yet to test but believe that these 2 simple mods and rigging changes will make a world of difference on the water.

Apart from that the only other difficulty is finding enough time to get out and enjoy the boat ;-) Sunday is looking good though.

On the weight side when ours is fully packed it weighs in at around 65 to 70kg, we manage to easily get this onto and off the roof racks on our 80 series using a rear roller. I also modified the trolley a bit so that it is a keyed fit to the rear deck of the Bazooka, this way I simply pack the tri up, fit the wheels to the deck at the rear, roll it over (carefully) and lift the nose onto the rack roller. It's then simply a matter of moving to the back, rolling and then lifting and pushing it onto the rack.

In all honesty it probably takes almost as long as trailer mounting etc. but we tend to go slow to make sure everything is done right. The main advantage we find is that we don't have to be towing a trailer around, finding any beach access for launching a trailer in WA is near on impossible, all access is by pedestrian paths. This is where the Bazooka shines though as we can easily wheel it through pedestrian gates that access the beaches.

Only other mod I need to make now is wider or double tyres on the trolley for our soft sand.

Regards

Tony

**Toby Johnston**

February 24, 2016

Dear Tony

Thanks for the excellent feed back.

It should be noted as you have discussed by email that this is one of two original Bazooka that Paul took to the SCIBS over ten years ago. Paul made many alterations to the basic design he started out with.

Ezifold Yachts LTD design and engineering team have gone through the design undertaking critical analysis, we re engineered the laminate specification to make it stronger and lighter which isn't a hard task given the advances in materials and manufacturing process's since Paul made your original model Bazooka. We then redesigned the sail plan in consultation with Fyfe and Hydes sails and the complete sail handling system specifically to enhance usability and simplicity.

None of the systems on your boat were in the production boats when Paul ceased manufacturing the Bazooka.

Email us as you have done previously if we can be of any further help.

Regards

Toby and team Ezifold

**Tony**

February 24, 2016

Thanks Toby,

Just to be clear I am not having a go at the bazooka design I have as it has handled awesomely even with a few minor glitches.

I put the difficulty with the sail rig down to a lack of experience on my part with this little rig, actually if there is any instruction manual on the original design it may have these issues already clarified in it?

Once sorted I am sure it will perform even better than it already has.

Also...

Ian asked back in 2015...

"ian on July 30, 2015 at 7:08 pm

Thanks Joe- if anyone knows what the original boats sold for new and how that compared to other similar boats at that time that would be interesting too...to me at least."

Ian,

The boat I have was originally sold in 1998 for AUD\$5.5k not sure how that compares to other cats and designs at the time?

Given the current pricing advertised by Ezifold for the Intro model as US\$6.95k, and the time frame that has passed since last manufactured I think that this little boat with updates and improvements represents brilliant value for money.

For current pricing a lot depends on what you want to compare it to? Most who look at this option would also be considering small beach cats or alternative tri's. Once again a lot comes down to your wish list for the boat you want.

Here is what we have found that the Bazooka can do easily:

- > Set up and pack up. Simple rigging and light weight parts. Easy 2 piece mast stepping. No trailer needed!!! Truly is roof rackable.
- > Sails well. (even with current glitches). Points well, a few degrees under my twin dagger racing cat and not quite as quick. Single kick up rudder and NO dagger boards makes it completely beachable. Extremely stable platform, we where hit by 4' plus waves from a passing charter boat and simply rode across them in the Bazooka, I was a bit worried when seeing them coming at us from behind but have a very high level of confidence in the little tri now.
- > Motors well. Have fitted a small 2.5 2 stroke and it motors along nicely.
- > Paddles nicely. Good clearance of the tramps when on the forward seat / mast position. Can use a double or single paddle easily.
- > Fairly dry in the middle, wet on the tramps. But so is a beach cat or any similar size tri.
- > Beach access. Not sure about other countries but in Oz most all city beaches are locked up to 4wd access. We can easily access the beach with the Bazooka using the trolley, however I will need to fit wider wheels due to softness of our sand.
- > Storage. Whilst not a huge centre hull area it is sufficient to stow a good deal of compact gear for camping, fishing or a day at the beach.

On pricing second hand I paid AUD\$3.5k in 2016 including shipping to get it. Significantly less than a new one, and having now used the boat a lot if I had the funds I would be very happy to pay the current price for a new one.

I would suggest that if anyone is evaluating their options for a fun little family sail boat that they include the Bazooka on that list. I have sailed a number of different cats over the last few years and the only ones that would match the simplicity of the bazooka in a similar level of specification would be some Hobie models. However in MHO the little Bazooka is a significantly more stable feeling boat than a cat, it does not feel as sketchy in it's handling and copes very well with strong gusts. I also find the layout of the Bazooka much more use friendly and versatile than flat deck tramps on a cat, I suffer from a lower back weakness and when hunched up cross legged on a cat for too long I can not stand straight for 30 mins. On the Tri I can have my feet in the centre well and site in a chair like position very comfortably, it also allows my youngest to sit in the middle and out of the wind when he gets cold.

Regards

Tony

**Tony**

August 11, 2017

Update: I now have 2 of these little beach trimarans. Had the opportunity to pick a 2nd one up for \$2200.00 so jumped in and took it. I could not build a boat of this quality and fun for that much!

So now it seems like I own the only 2 Bazooka Tri's sailing in Australia.

On another note, I have just noticed that Ezifold Yachts we site as well as their Facebook page and contact details are all down or gone. That would be a crying shame if the Bazooka was no longer available to be made.

If anyone knows what happened please post some information up.

**Small Tri Guy**

August 11, 2017

Hi Tony,

Yes, that IS a shame about EziFoldYachts ... thanks for giving us all a heads-up on that one.

**Craig Johnston**

December 13, 2017

Hi all.

Ezifold Yachts is still very much alive and well as is the Bazooka.

I have purchased the business back and have been busy in the back ground on design work.

I founded the business in 1996 and sold it due to bad health some years back.

My health improved and a conversation at the right time presented the opportunity to buy the Company.

There will be a refreshed website and facebook page in the New Year.

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Regards

Craig Johnston

Owner

Ezifold Yachts LTD

# Strike 16 Trimaran for Sale in Miami

August 6, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, Strike 16 Trimaran

No Comments

# SeaRail 19 Trimaran GoPro Video

August 10, 2015

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: Searail 19 trimaran

No Comments



# Launching of Scarab 18 Trimaran – Midnight Runner

August 10, 2015

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: scarab 18 trimaran

## Comments

**mark shaw**

August 20, 2015

Scarab 18 have flat bottom amas this one must be custom!

**mark shaw**

September 17, 2015

I have this boat for sale in New England

Can be reached at 508-498-8003

# Sardine Run 19 Trimaran to Launch this Fall

August 10, 2015

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Sardine Run 19 Trimaran

No Comments

# CLC Double Outrigger Kayak with Mark III SailRig

August 13, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: clc tandem kayak, double outrigger kayak, kayak with sail, sailing kayak

## Comments

**Dutchy**

December 15, 2018

Hello Algie,

Great idea making a sailboat from a kajak. Looking at the pictures I see that you put the kajak on a ladder and the ladder is positioned on the imperial.

I myself have built the trimaran "woodmax" and also drive a Ford Focus C-max. My problem is that when I am alone, it is really hard to get my "trimaran" cartopped. It weighs 50 kg.

How do you do this when you are alone ? Any info is welcome.

# Chryz10 Trimaran – Speedy Little Dinghy

August 24, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Chryz10 Trimaran

## Comments

### Stefano

August 29, 2015

Excellent and very nice looking job Chris... even more if this is your first time building ( not sailing for sure...)

Three comments:

1) Your amas look slightly "toe out". This means their axis seems to be slightly divergent at the bow from the main hull axis. If this is the case, when you bury your leeward ama, you are really stopping the boat abruptly (as is shown in "pushing the limits" video. Check on this fact.

2) The ladder black plank looks great, but when windy and gusty, you may need to sit further back to get on a plane by providing a better angle to boat main hull and amas in respect of the water ( just like when you throw flat stones in the water to make them hop. You need a good angle to do

3) the amas look great, they seem to be sized down copies of hulls such as Hobie wildcat, or amas of very large ocean going tris. But be aware that those hulls are very buoyant. The tri amas are 200% displacement of the whole boat. This is how they lift the main hull. Yours seem to bury in the water because not all that works on a larger scale works when scaled down. You would probably benefit from planing amas such as those of Frank Smoot with a better angle ( lift) and a probably larger planing bottom.

All this said, wonderful job... Thumbs up, I will be following your blog.

best luck, Stefano (Please post dome details on sail area etc).

### stefano

August 29, 2015

sorry... i forgot one more comment...

Your hull is solidly built but the main hull is narrow. Shrouds are therefore attached very close to the mast. I know that you have a tube mast partner but also a lot of sail. I had a similar arrangement and my shrouds tore the hull on a gust. I now have an extra pair of textile (dyneema 3 mm) shrouds leading with the same back swept angle to the amas. Much better angle at 310 cm width. The mast and hull are thanking me all the times there are short steep waves and gusty winds. I assume these conditions are frequent in Sweden ( I know they are in Stockholm area).

### Hans Schipper

September 6, 2015

I really like the design and the way it is developed/created.

It shows how much fun a small trimaran is.

I think you need a good and wide traveller in order to handle the forces acting on the sail. By keeping the sail plane, you can easy dispose the surplus of power away. I made a good running traveller on my triple A trimaran. With operating the traveler, I have better control than by operating the mainsheet.

### ian

September 6, 2015

The scaled down aspect of the design does explain a lot about how it sails- in many ways it's almost like a 1/6 scale model of a typical 60-70 foot offshore tri, fattened up just enough to allow a full scale person to sail it.

That's pretty neat by itself but the real world challenges of this type become very apparent at the extreme low end of the scale, namely all your crew weight is in one giant lump that can easily make up 40-50% of the all up sailing displacement and can easily tip the boat out of trim if power is applied when that weight is in the wrong place.

In that sense a tiny boat with crew aboard and lots of power is almost like a heavily laden cargo ship; successfully anticipating and managing the effects of inertia can be tricky.

The difference here is that you don't have as much control over the power being applied as the wind gusts, and your heavy cargo can shift anywhere both by its own deliberate action and due to getting tossed around by boat/sea action.

The other thing particular to tris of this style is that the hull centers of buoyancy and overall weight are kept well aft and the weight of the slender low volume bows is partially cantilevered off of the rest of the boat rather than floating, which allows them to resist the urge to float over waves and causes them to pierce straight through instead.

It can work at small scale but as Stefano points out the crew weight may need to move even farther aft (and maybe back very quickly) to avoid the extreme trim angles seen in the video. Unfortunately this is counter to general safety principles for boats of this size, that favor low, centralized weigh distribution and full ends.

So in one sense it really is working, when you think about it, and pretty much just like its bigger relatives- the lee ama bow stuffs in and with quick action it recovers just like this maxi wavepiercer that is being driven hard-

[https://www.youtube.com/watch?v=QP-67\\_sPgGc](https://www.youtube.com/watch?v=QP-67_sPgGc)

2/15/23, 7:38 PM

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Big difference though when you are sitting at a helm six inches off the water instead of six feet.

**Dutchy**

September 18, 2015

Hello Chris,

Firstly congratulations with your design. If I,m correct your trimaran is only 3 m long and you manage to get it to speed.

Secondly, thanks for putting this on internet. There are not that many home-made-designers for small trimarans,despite of the many people who just have their opinion.

About your last video:

I agree with Stefano, you need to be able to sit back more and your ama's are to large (this is costing a lot of speed).

Using planing ama's like Frank is indeed an option (because your main ship is approx round (has enough rocker)

I myself am exploring the right ama for my own 3 m trimaran. I used old waterski's (no byoncy and to much wet surface area) in combination with some tube floats above it.

I even used hydrofoils (you have to make them deep and you need a lot of ama-to-ama distance in order to have a stable equilibrium and they give no start stability)

Dutchy,

PS. If you move any further with your project I would start with the planing ama's. Make sure you have them in front as much as posible and make sure that they do not touch that much when you are tagging or in starting position.

PS.Have a lot of fun !!! I hope to hear/see more of you

**dutchy**

September 18, 2015

I was just checking and there's something missing

last point should be: Make sure you have them in front as much as posible and make sure that they do not touch THE WATER that much when you are tagging or in starting position. REASON IS OTHERWISE TAGGING PROBLEMS

# Little Tri Leeboard – Some Thoughts

August 28, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Bernd Kohler, leeboards, Little Tri

## Comments

### Swiss pete

September 9, 2015

Hi mait top stuff looks and sails grait

### Hans Schipper

September 20, 2015

Ik zag deze trimaran op 4 augustus varen op het Wad, op weg naar Kornwerderzand. Ik kon'm met mijn motorsailer net niet bijhouden en hij was veel sneller door brug en sluis. Een mooi voordeel van zo'n relatief klein tuig en korte mast. Ik vond de snelheid verrassend met het kleine tuig. Ik ben benieuwd naar de ervaring met het aan de grond lopen en de kwetsbaarheid van de zwaarden. Zo te zien kunnen deze niet zo makkelijk meebewegen als de zwaarden van een platbodem.

Ik ben, na de bouw van mijn triple A trimaran, bezig met voorbereiding van een iets grotere 5 meter trimaran (met hefdakkajuit) maar overweeg vanwege de kwetsbaarheid de zwaardloze rompvorm van de Dart. Voor de zijrijvers gebruik ik de rompen van een coolcat 15 die met een hoogte van 60 cm eveneens een goede zwaardwerking hebben.

### Evaristo

February 7, 2016

Hello, my name is Evaristo and I live in Brazil. I plan to build outriggers for my kayak and noticed yours are made from pvc pipes, I imagine. can you tell about their performance, flotability and wave piercing? Can you sit on the side in a low wind?

Thanks and congrats for the great looking tri!

### Hans

February 25, 2016

Hello Evaristo,

The pvc pipes work good in practice.

Mine are angled a bit up, and that, together with the shape of the bow gives some extra lift upwards. I can sit everywhere, and stand about 20 cm from the side of the boat (the volume if the float is aprox. 80 liters).

They weigh 12 kg a piece (4 meter long).

Hope that helps.

Regards,

Hans van der Zijpp, owner/builder of the Yellow Little Tri

### Evaristo

March 14, 2016

Thanks a lot Hans. It helps me make the early decisions to build mine.

### Rob Harmer

December 19, 2017

Hans OR anyone who knows the answer,,What is the dimentions across ,diameter of the pvc pipe? Thanks

# Custom Self-Built 23-Foot Trimaran

September 11, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 23 foot trimaran, custom built trimaran

## Comments

### Joost

September 11, 2015

It looks great! When will drawings and buildingplans be available?

### Christofer

September 11, 2015

Looks really cool! Any sailing photos in action? :)

### Small Tri Guy

September 11, 2015

I don't think building plans will ever be offered for this boat. As for sailing pics, I am hoping that a few of those, or perhaps even a video, might be offered in the not-too-distant future.

### ian

September 12, 2015

I really like this one and can see many of the ideas from many talented designers that influenced the final product.

It doesn't really look like one per se, but for what its worth I still get a very strong sense of the classic Seabird yawl when looking at the lines of the cockpit and coamings and the slightly oversized cabin-to-hull proportions.

Both are loosely based on Eastern seaboard workboat hulls and have larger than average trunk cabins for their size so that probably has something to do with it, but its also worth noting that like a modern tri the Seabird was considered very light in its day, and floated on the water and rode over waves like its namesake, rather than plowing through them like so many of its contemporaries. Thomas Fleming day sailed one across the Atlantic in 1911 and according to what I've read averaged 142 miles a day or 5.9 knots, which is astoundingly fast for a 26' full keel gaff rigged sailboat...I'm sure plenty of multis have not done much better on the same passage.

Seabird was also a pioneering DIY pocket cruiser design intended for amateur construction from the outset in 1909 and became another DIY pioneer when it was redesigned for the newfangled plywood construction 30 years later, so maybe the comparison to a trimaran isn't so crazy; you might say the Seabird paved the way for the small DIY trimaran, homebuilt pocket cruisers and plywood boat construction in general.

One possible tweak to even out the main hull and ama buoyancy issues without major reconstruction might be to consider narrow the overall beam slightly by shortening the crossarms, maybe as much as a foot total. That's well within beam/length ratios of many perfectly seaworthy tris of similar size like the Cross 24 that have decent float volume and aren't trying to fly a main hull.

This might help with any negatives from larger than necessary amas (like not being able to fly the windward one) without sacrificing stability to any serious degree, and also could act to mitigate problems with lower than optimal main hull stern volume by getting that extra ama buoyancy closer to the boat's centerline where it is needed.

Long, narrow hulls tend to squat a bit in the stern when power is applied and at some point the lee ama volume being spread too far out from the main hull centerline can exacerbate the problem on the other hulls, especially if the ama develops dynamic lift in addition to flotation.

Where a narrowed tri might tip more but will un-weight the main hull as it does so, the too wide tri with an ama that is ever more sink resistant as it goes faster will want to go straight and spread its share of that natural squat action to the main hull that has more mass and inertia to deal with and can't respond as quickly. The result is an amplification of that squat in the main hull, along with increased racking forces.

This can happen even with dead solid crossarms and wing decks, add in a bit of springiness and really bad things can happen with long enough levers connecting hulls that don't behave as one unit.

### Stefano

September 23, 2015

Really nice boat. As for the behaviour, I think Ian has pointed out a practical solution in proposing to shorten the amas so to have a stiffer unit and have the latter take on some load off the main hull - which by Tom's admittance - needs more volume to support 3 people in the cockpit.

I would really like if Tom could expand on the folding system and add some pics. I still have the idea that the akas might be too weak in such a configuration and would like to be spoken out of this conviction with some knowledgeable words.

thanks in advance , Stefano (on the verge of building his own)

### Eric Brennan

December 11, 2015

I live in the Detroit area and would love to come out and sail with you. I have a Hobie 16 and sail a couple times a year from Metro beach.

# The Ocean is Calling – Ngalawa Sailing

September 17, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Ngalawa, Ngalawa Outrigger Sailing

## Comments

**ian**

September 18, 2015

That's probably the best sailing footage of these boats I've ever seen, in the biggest swell conditions too.

From what little I've read they are mostly used in fairly sheltered coastal areas in fair weather and things can get dicey real fast in big winds and swells...I suppose they have overall positive flotation since it's all wood, but probably just barely and the low freeboard suggests that trying to bail one out when fully swamped in swells of this size could be futile.

Looks like they were definitely on the edge a couple of times and were doing a lot of bailing, the inertia of all that solid lumber makes it a wave piercer whether you like it or not...I bring it up because the anti-porpoising bow appendage is a pretty rare detail on a canoe this ancient and only appears in a handful of places, all the rest of which are across the Indian Ocean from Madagascar/East Africa.

from wiki-

"Human settlement of Madagascar occurred between 350 BC and AD 550 by Austronesian peoples arriving on outrigger canoes from Borneo."

The people who use them came from across the Ocean, but that seems unlikely in this version...so it's probably something developed later, but then again the migration time given frame is relatively late and so you'd think that there would be far more historical documentation of how it got to be what it is.

These boats are such an oddity, a very modern trimaran concept off by it's lonesome in a part of the world that has spawned relatively few other types of outrigger canoes let alone double ones...and then it's got these planks for amas that are unique to this regional type and are not seen on any other outrigger, single or double as far as I know.

I'm fascinated by them, so thanks a lot Joe and Bernd for sharing this.

**tony**

September 20, 2015

looks a fantastic tri, the ancients certainly knew there stuff



# Little Tri Sailing with Boomed Jib

September 24, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: boomed jib, jib with boom, Little Tri, little trimaran

## Comments

### Stefano

September 24, 2015

Thanks to Small Tri Guy that discovered that the first video was posted 7 years ago... so this would mean it has no relationship with the omonymous "Little tri" by Bernd Kohler. I thought it was a modified version of it...

Even by the videos this tri however seems packed with intelligent solutions. One thing I noticed is the netting is green knotless polypropylene used in the fishing industry. Inexpensive compared to trampoline webbing and floating fabric in case of capsizing. Also expells water very fast compared to other fibers. Well thought out indeed...

### stefano

September 24, 2015

By the way... can somebody identify the language ? If I were to guess I would say swedish or finnish or something northern european.. I hear one saying "da" for yes but it may not be russian ( just guessing). Perhaps some russian on the baltic area becasue the intonation sounds very much from that area.

Just curios...

### mark

September 25, 2015

They are speaking Afrikaans, poss on the Vaal dam in South Africa.

### Michael E

September 26, 2015

look up fanie on boatdesign.net .I reckon it is his boat - dugout

### Stefano

September 29, 2015

From the pics of the boat it looks like a "quick and dirty" essay (working quite well actually) of a foam core fibreglass hull. It would be nice to contact "fanie" and have him expand on this tri and building-folding solution.

# Adventure Rowboat Sailing Canoe

October 1, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: double outrigger, rowboat canoe, rowing canoe, sailing canoe

No Comments

# Seaclipper 16 Trimaran – Open Cockpit Version

October 7, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, Seaclipper 16 trimaran

## Comments

### **Mike**

October 8, 2015

Nice! I'll see you in the 2016 Tx200 while sailing the Little Tri. :)

### **Wade Tarzia**

October 24, 2015

Nice boat! How many inches do the swing-beams overlap? (looks ~ 18?). Did you use anything fancy for the beams? Spruce?

### **Larry**

February 21, 2022

Hi Barney: I know this is an older thread. I see you are using the original style of Ama's. Is this an option vice the SC20 style Ama's shown on the Marples website?

How has she performed and held up for you given your intended use?

# Strike 16 Trimaran in Lima Peru

October 8, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, Strike 16 Trimaran

## Comments

**Douglas Graham**

February 11, 2018

I am also a Gringo in Lima that thinks building a boat could be an interesting project. I am a first time builder so I thought that I should build a fairly simple and light boat. I settled on a 15'6" canoe that I can cartop to the Amazon tributaries. I am not very familiar with Lima so am pretty lost when it comes to finding materials. Do you know a source for 4 or 5mm marine grade plywood and epoxy or polyurethane here in Lima?

# Tremolino Sporting a Jolly Roger

October 18, 2015

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Dick Newick, Tremolino, Tremolino trimaran

## Comments

**Andrew Bartholomew**

November 9, 2015

Love to hear more about Tremolinos, especially the 26' job. Starting on a 26 footer here in Australia.

**Ed Burns**

December 30, 2015

Is there no one that has the plans for the 26' Tremolinos that are for sale legally?

**Small Tri Guy**

December 31, 2015

Hi Ed,

Would you like for me to forward your contact info to Pat Newick? She might be the only one who would be able to sell you those plans ... she wouldn't be able to offer you and support with regards to building questions, but she may have a set of plans for sale.

# CLC Sport Tandem with Sailrig MK3 Project Under Testing

October 26, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Chesapeake Light Craft, CLC Boats, clc kayak

## Comments

**Gary**

January 4, 2016

I'm building a Chesapeake Double with a MK III sail rig, and I'm concerned about getting in and out at a dock. That trampoline setup looks really good. Can it be moved out of the way for paddling while underway?

**Algie Bennett**

January 7, 2017

Sorry for not seeing this before ...

The tramps have just enough flotation to walk quickly onto a dock. We also have some small flota with one crossbeam we use when paddling in difficult conditions. In one iteration of these we have the ability to cantilever them to the side of the boat so we can easily get in and out.

Simply pull on one line and it comes, pull another and it folds out and locks in place.

The tramps in this photo can't be taken off for paddling, only 1 paddle seated at the rear.

We changed the distance between the crossbeams so that when the tramps aren't on it is easy to paddle between the crossbeams for the person in front and they don't get in the way for the rear paddler either.

**Gary**

March 27, 2017

Thanks. I'm considering doing the Race to Alaska solo this year. If I knew I were going solo, I would have gone with the Sport Tandem. The Chesapeake Double is a beast. On the other hand, it gives me an opportunity to put a couple of rails between the crossbeams over the hull so I might be able to rig a platform and pitch a one-person backpacking tent. It might also be possible to install a pedal/propeller drive that can fold out of the way. I'm still working on these.

I've mounted the daggerboard in a case on the right side of the front cockpit. The hull is so wide there that it doesn't interfere with the front paddler. The inboard mount was suggested by John Harris. He mounted one in the front cockpit. I didn't like this, so I offset it on mine so it goes through the deck. No water access into the cockpit.

Gary

# Dick Newick's Official Biography Published

October 30, 2015

Categories: Small Tri Info - All

Tags: Dick Newick

No Comments

# Introducing the Zeta – a 14-foot Singlehanded Trimaran

November 6, 2015

Categories: Small Tri Info - All

Tags: Richard Woods, zeta 14 trimaran, zeta trimaran

No Comments



# Futura Trimaran Sailing in Italy

November 13, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: futura trimaran

No Comments

# Elbow Run 2015: Another Windrider Sailing Adventure

November 19, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: windrider trimaran, windrider trimarans sailing

No Comments

# Macgregor Venture Hobie Trimaran

November 25, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Hobie 18, Macgregor 21, Macgregor Venture 21 sailboat, trimaran building project

## Comments

### Michael

November 26, 2015

Cool. Please , please, drop me a note on progress and sailing, I think your on to something, Mike

### Robert

November 27, 2015

It seems like a great concept and am looking forward to more details at completion. A keel boats seems like a natural starting point to convert to multihull: much cheaper than buying a cruising tri and not requiring the effort and time to build from scratch. Lose the weight of the keel, add akas and amas for a net weight loss. For example, there is now a Soling for sale locally for \$2600. Can't beat that with a stick. Robert

### Travis

December 3, 2015

Robert, you are correct. The keel on the Venture 21 weighed 400 pounds. An entire Hobie 18 only weighs 420 pounds. With the outriggers I am able to have much more sail area than the monohull version of the boat which means more horse power. The venture 21 is only 6 ft wide total and at the waterline its only about 4ft wide which is fairly narrow which should allow it to reach decent speeds when sailing.

Mike,

I will keep Joe updated on the progress. I hope to have it in the water by this spring.

### Travis

December 3, 2015

Mike,

You can also read about another Venture 21 trimaran conversion at <http://www.boatdesign.net/forums/multihulls/hobie-j24-trimaran-conversion-7206-8.html> It has a few pics as well. It has a new owner now. Its a really basic conversion so its not the most appealing to the eye but I love the new owners comment about the boat which was:

I'm a monohull guy and I had my doubts but I have to admit, it's a blast to sail. It's a helluva lotta fun as is. Planes pretty easily and has a lot of giddyup. The real enjoyment from sailing a mutt like this is politely tolerating snide comments from blue bloods at the yacht club bar and then completely blowing them out of the water later in the day. He also gave me Chris White's book "The Cruising Multihull" and after reading it, I do believe that I'm about to drink the Kool-Aide on multihulls.

### Greg

December 5, 2015

Like it,just picked up a hunter 23 wing keel.

This would be perfect for it.

### Daniel Short

December 13, 2015

Nice project Travis, I am doing a similar conversion with my Venture 22. I would love to chat with you and pick your brain sometime if you wouldn't mind emailing me privately. I am building my 20 foot ama's with a 34 inch beam at their widest point from scratch, as well as the aka's for that matter, in a stitch and glue method. I removed the ballast too, and had considered cutting the top off and modifying it as you have done, I am curious how your experience with that went. My boat will end up having a 17 foot beam which will allow me, as you stated to increase my mast height. I was going to use a 31 foot mast like the F22 has. I would love to speak with you, get an update and more pics on your project if you have time. Thank you!

### Greg Hardt

December 14, 2015

Travis, I am intrigued with your project as I have been entertaining a similar idea myself. I have been sailing multihulls for years and thought I'd chop up some old ones I had laying around.I've been thinking of using a Hobbie 18 hull for the center and Hobbie 14 hulls for the amas. I appreciate the link on multihull conversions and look forward to seeing your progress.

### Travis

December 16, 2015

Daniel, you can email me at [piratetrails\(at\)gmail\(dot\)com](mailto:piratetrails(at)gmail(dot)com)

If anyone else plans on doing a conversion like this and you live in Florida someone has a great deal posted on craigslist in Sarasota that can save you a lot of work. They are selling two 20 ft amas, the folding system and a mast all for \$600. Its a great deal. Here is the link <http://sarasota.craigslist.org/bpo/5315959695.html>

### Greg

January 8, 2016

Travis or anyone else out there, smarter than me. feels Hobie 16 hulls would be large enough for a hunter 23 it's all I have on hand. Any info or suggestions would be helpfull

### Travis Haggard

January 13, 2016

Greg,

The tremolino trimaran by Dick Newick was very successful design and it used Hobies 16 hulls (Google "tremolino trimaran" to read about it) but on the other hand

Richard Woods doesn't encourage using them on his small tri designs because they don't offer near as much buoyancy as other hull designs. Have you considered making your own out of home depot foam and fiberglass? I cant remember his name at the moment, he lives here in Florida, but one of the guys featured on this site has built several small tris out of it successfully and it looks fairly easy to do. I'm sure Joe knows who I'm talking about. Some day I would like to replace my Hobie 18 outriggers with foam outriggers. It would be much lighter and because its foam a smaller hull would still give a lot of buoyancy.

**greg**

January 13, 2016

Thanks Travis

I do like the folding system on the T-Gull, the later version of the Tremolino. With the cost of a slip here in NJ being more than the average mortgage folding would be a must. Asked for plans on the Tremolino Yahoo page.hope to get something I can add to my plan

**Travis**

January 14, 2016

Greg,

You have probably seen the Fabien tricote trimaran here on this site. It has hobie 16 hulls and the owner is very happy with it. You can see it here

<http://smalltrimarans.com/blog/2-self-built-diy-tricote-trimarans-in-france/#more-7908>

The hobie 16 hulls will work. They are often discouraged by designers mainly because they are heavy for their size and they don't offer a lot of buoyancy for their size. So in that sense there are better options out there. The main thing to consider is how big of a sail plan do you plan on using? If you are sticking with the stock hunter 23 sail plan I think they should work fine. If you plan on adding a really big sail then they may not perform well in heavy winds. You may have to reef the sail a little. Bottom line, they will work but they are not the best option if you have other options. If you don't, use them. I look at it this way... Its better to have a trimaran with hulls that are not the "best" option than it is to sit on the shore and watch others sail their boat wishing you were out there with them. Good luck, contact me if I can help you :-)

**greg**

January 16, 2016

No I had not seen it. but it's about as pretty as what I sail now, if you search Hobie plus canoe you can see my first attempt.I have made it a lot nicer since that post, moved the mast step twice but now she points well and +10 knots are easy.What I wanted to do was make smaller and lighter amas for it and use those hobie 16 hulls on the Hunter. it is a good little boat only around 600 lbs but 200 to 250 of those pounds are in those hulls. At 450 lbs it will be great little boat, but at best it's a day sailor the Hunter is going to be my upgrade. Will post some video of her this summer so you can see what she looks like now.

Thanks again

Greg

**Small Tri Guy**

January 20, 2016

The first name that pops into my head when I think of foam/glass amas is Gary Dierking. For example, here: <http://outriggersailingcanoes.blogspot.com/2011/08/ama-shaping.html>

And here: <http://outriggersailingcanoes.blogspot.com/2011/08/finished-final-shaping-of-ama-and-got.html>

**Travis**

January 20, 2016

Yes, Gary Dierking has some foam akas on one of his boats. BTW, I love his boats, he was part of my inspiration when I built the Trikanu. The guy I was trying to think of is named Dave Lucas who is featured on the duckworks website often. He lives in Bradenton, Florida and has taken foam boat building to a whole new level and he does it with the Home Depot foam. Here is an example <http://www.duckworksmagazine.com/15/columns/dave/01/index.htm#.VqA5qyorLIU>

Its very interesting stuff and he says its very easy to work with. He can build an entire canoe/ kayak in a weekend with foam and fiberglass. Also Frank Smoot built one of his small trimarans partly with foam (a foam bottom for the main hull) which can be seen at <http://duckworksmagazine.com/12/splash/nov/index.html> Scroll about half way down the page to see the trimaran. I think you may have an article about it here on your site as well?

The foam gives the boat a professional built appearance because of how you can shape it and of course its very light and provides a lot of buoyancy. It's definitely something I want to play around with.

**Travis**

January 20, 2016

Here is another link about Daves foam boats.

<http://www.duckworksmagazine.com/15/columns/dave/05/index.htm#.VqBBvyorLIU>

as you can see he has got much better at working with the foam and he has caught the eye of Charlie Morgan and Tim Horsman (profession boat builders) with his foam boats

**Small Tri Guy**

January 20, 2016

Great URL references Travis! Love it. That story about building a boat with Home Depot foam & glass is going to get some guys thinking.

# Sails for Small Trimarans?

December 3, 2015

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: sailmaker, small trimaran sail

## Comments

### Wade Tarzia

December 3, 2015

Dabbler Sails was my first choice to try a query because I want to try a design like the one Meade Gougeon used on his "Voyageur" small tri, and I think they had something to do with that. Dabbler did post an essay on sail reefing via hooks and loops, which the Gougeon sail used. I filled out their query form on their website months ago but never heard back from them.

### Chris

December 4, 2015

Hi! I ordered new custom-made sails directly from North-sails Sweden for my small 10ft Chryz10. Ordered Main, jib, Code-0 and gennaker/spin.

They turned out really great. The spin, I could also use their Color Fast application, to chose spinnaker colors.

Price was pretty much price/sqr m, same as for big boats, but due to the small size, it was cheap for me!

I can really recommend North Sails, and they helped me a lot.

Visit my site and judge :) <http://www.chryz10.com>

Gennaker

[https://cholsson.files.wordpress.com/2015/10/wpimg\\_20151017\\_150721.jpg?w=1000](https://cholsson.files.wordpress.com/2015/10/wpimg_20151017_150721.jpg?w=1000)

Main+Gennaker

[https://cholsson.files.wordpress.com/2015/10/wpimg\\_20151017\\_150755.jpg?w=1000](https://cholsson.files.wordpress.com/2015/10/wpimg_20151017_150755.jpg?w=1000)

Code0

[https://cholsson.files.wordpress.com/2015/10/wpimg\\_20151017\\_171216.jpg?w=1000](https://cholsson.files.wordpress.com/2015/10/wpimg_20151017_171216.jpg?w=1000)

Main+jib, heavy wind

[https://www.youtube.com/watch?v=YlIX\\_aS7lek](https://www.youtube.com/watch?v=YlIX_aS7lek)

br

Chris

### Stefano

December 8, 2015

Hello

I had a very good experience with LEE sails in hong kong. I was surprised they had the files with Trailertri 720 sail specifications and made a wonderful and very accurate job also in details for a dacron reefable jib I ordered. Very satisfied but had a bad surprise when importing in Italy where high import tax was added on top of sail+air freight and 20% VAT added on top of the whole, including tax. Other than this, (USA import rules are more favorable I bet)... the sail was very performing (much more than a genoa I had on board) and had a level of detail I never saw elsewhere (pvc coated stainless wire, hand sewn artificial leather reinforcements on all clews, SS pistonless hanks).

Another excellent sail I had made was a screecher- gennaker mad from Aurora Sails here in Italy. <http://www.aurorasails.it/> send to the attention of Filippo Aurora. He has a very special cut for a gennaker, in a cloth that is about 1.5 oz instead of the ubiquitous 0.75 oz this is because it has an adjustable spectra 4 mm rope in the luff to give or take fullness changing the shape from a gennaker to a 160% very light genoa (call it a screecher if you prefer). This sail is extremely versatile and fun to use from reaching to running conditions. Excellent craftsmanship, cloth, and prices that now compete with Chinese (read: economic crisis).

Last hint: I heard very good reports and was addressed at Calvert sails (USA or Canada cannot remember) for a set of new sails for my trailertri 720. Especially for the square head main cut they have. I gave up when I learned the hard way what EU sail imports conditions were, so no direct experience there, just word of mouth.

Good luck, Stefano

### stefano

December 8, 2015

Just two more technical details on the sails:

- the reefable jib was 275 grams square metre. When reduced (7 sq metre) it easily took 35 knots with 40 on gusts winds. And was perfect also in light airs 7-8 knots

- the roller furling adjustable gennaker has been used from 4 to 15 knots true wind and sailed perfectly in both.

I use this strategy: reefable jib (100-105%) as a staysail

+ roller reefable gennaker on self made roller reefer on bowsprit.

together with 2 slab reefs on the main, you can do about anything including surviving squalls with this set of sails, go to windward closer than a monohull, and do without a roller reefing system on the genoa.

### Brian Pearson

December 11, 2015

Richard Woods posted a link for a very good value sail for his new 14' tri <http://www.intensitysails.com/howamasa.html>

**Small Tri Guy**

December 15, 2015

Small trimaran sailor Bob Trygg shared the following information with me via email:

If you are looking for quality sails at a great price you should check the following-

National Sail Supply

26092 Withrow Rd.

Brooksville, FL. 34601

1-800-611-3823

I bought sails for my last 2 boats from them at a better price than kits from Sailrite.

Talk to Dirk Sharland

Their email address is:

newsails AT aol.com

# Windrider's List of Production Trimarans (in 2015)

December 5, 2015

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: trimarans production boats

No Comments

# The Trikanu Before the Venture Hobie Trimaran

December 10, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: double outrigger sailing canoe, trikanu trimaran

## Comments

### **Stefano**

December 11, 2015

Very interesting both jobs... I would appreciate if you could expand on the sail and roller reefing system of the Trikanu (modified old windsurf sail ? Did you install vertical battens?) .

Also the folding system of this new creation is interesting to me, as well as the aka-ama joint you built to adapt the akas to the hobie 18 hulls.

Thanks , Stefano

### **Travis**

January 13, 2016

Stefano,

I apologize for taking so long to reply. I've been really busy lately with work, building a small business on the side, the holidays and of course boat building.

The mast on the trikanu is a wind surfer mast. The boom on the video was actually the handle you would use on a typical swimming pool skimmer or brush. I used it because I could adjust it to any length which was great because I could experiment with different sail plans. I eventually replaced it with a wood boom after I decided what size sail to use. The boom was held to the mast with a simple horse shoe shaped fitting that wrapped and the mast. I think there is a technical term for that type of fitting but I don't remember what its called. The sail did not have any battens in it. The sail was made out of poly tarp (I found a website online that offered multiple colors of tarp so it was not the typical blue poly tarp color). The sail wrapped around the mast and was held together with double sided tape.

The folding system on the new venture trimaran is made from 1/4 inch thick aluminum plates. I used a high speed grinder to cut them to the shape I desired. It was surprisingly easy to do. The akas I built fit almost perfectly into the existing slots for the Hobie 18 aka tubes. All I had to do was fill in the gaps with a mixture of fiberglass fibers and epoxy. After it dried, I grinded the mixture down to the desired shape and then put several layers of 6 ounce cloth over the joint to give it additional strength. I was very pleased with the results.

### **Mark Warburton**

September 13, 2016

I am amazed by your use of the Venture 21. I have two Hobie 18's and have been looking to build a small tri using the rig and hulls of one of them. Here in Ontario Canada I come across many ventures for sale cheap and am giving serious consideration to doing the same thing you have. I would love to see some details of the connection for the hobie.



# Great Looking Seaclipper 10 Trimaran Ready for Fun

December 17, 2015

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, seaclipper 10 trimaran

No Comments

# Blokart on Katalyst Potentially a Small Tri Concept?

December 23, 2015

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: blokart, blokart sailing, Katalyst catamaran

## Comments

**Manfred Pech**

December 29, 2015

Have a book of Dick Dodd from 1972 and found in it an interesting project with plans for selfbuilding a somewhat similar vehicle for ice, land and water:

<http://up.picr.de/24113079yh.jpg>

Kind regards, Manfred

**Small Tri Guy**

December 29, 2015

Manfred,

That is the neatest thing! Wow, thanks for sharing that with us here ... I think I am going to do an update of this post in order to feature that photo :-)

**Manfred Pech**

December 29, 2015

See also...

<http://up.picr.de/24118140ev.jpg>

<http://up.picr.de/24118141zf.jpg>

<http://up.picr.de/24118142kq.jpg>

**Small Tri Guy**

December 29, 2015

Awesome!

Again, many thanks Manfred.

**Jim Gallant**

January 22, 2016

When multihulls get this small, I have to ask, are so fat that you can't stand up on a windsurfer??? Get off your ass and SAIL.

# WindRider International Merges with Nickels Boat Works

January 2, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: windrider trimaran

No Comments

# The WindKnife – DIY Aluminum Rudders, Daggerboards and Centerboards

January 6, 2016

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: aluminum, aluminum centerboard, aluminum rudder, Daggerboard, hydrofoil, windknife

## Comments

**Gareth Roberts**

June 11, 2016

Just to let you know we now have a new product in the range the "Full Foil". This is more of a complete hydrofoil which will make the build easier in many cases.

Take a look at the website for more information <http://www.windknife.com>

# Building a Cool Finn Trimaran

January 11, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: cool finn trimaran

## Comments

**Jan Hendrik**

February 1, 2016

Hello Hans, enjoy your work! It will be great when it is finished.

Bye Jan Hendrik

**Jarda Suchopar**

February 15, 2017

Dear Hans

We had a similar idea to use the Finn dinghy for a new trimaran conversion I see.

But your trimarans are really fast I see. My dinghy Finn conversion is a tourist houseboat against to your constructions.

Do you accept my congratulations please. You are the real master designer.

I wish you very pleasant yachting season.

Greetings from the sunny early spring time in Prague to you and to Joe.

Jarda Suchopar

# Seaclipper 16 Trimaran – Open Cockpit Version Plans Now Available

January 13, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: John Marples, Seaclipper 16 trimaran

## Comments

**Daniel**

January 20, 2016

Hi,

pls, how I does to order/buy plans?

Thanks

**Small Tri Guy**

January 20, 2016

You can order plans by contacting John at marplesmarine[AT]gmail[DOT]com or call him Monday through Friday from 9 a.m. to 5 p.m. (Eastern Time Zone) at 207-326-8096.

**Christopher Isles**

July 27, 2016

Hi, Chris from Australia. I'll been thinking about building this boat for a long time but, what do I do with the Hobie 14? Can't I use the hulls in the 16?

It seems crazy to just take the rig and throw the rest of the Hobie away.

Cheers Chris

**Small Tri Guy**

July 27, 2016

Hi Chris,

Great question. I'd ask John Marples about this (he can be contacted via his email address, found at <http://www.searunner.com>). I can tell you from first-hand experience that the amas John designed for the SC center hull are very high-volume. I am not sure if the standard Hobie hulls would have the buoyancy necessary to handle the Hobie 14 rig while it sits on the SC 16 center hull. (That rig, by the way, is perfect for John's design of the boat). Another challenge would be knowing how to attach the Hobie hulls to the crossbeams. The Hobie hulls would have to be structurally reinforced in the areas of attachment. If one knows what they are doing then I'd say it can be done. But if they don't then there is a much-increased risk of failure while sailing. What would need to be done involves cutting into the Hobie hulls (and then resealing them) in order to build structural support areas that attach to the new SC16 crossbeams.

**Ed Stewart**

July 30, 2016

Just launched my Seaclipper 16 today! I used the Hobie 14 rig, some of the blocks and the trailer. I advertised the amas and found a buyer. I gave my son the beach buggy to use with a 15' sail boat he built. No waste and I saved a bunch of money. Build one – it's fun!

**Small Tri Guy**

July 30, 2016

Hi Ed,

Many congrats on your successful build! I hope we see your boat featured here on smalltrimarans soon :-)

**Michael Newham**

February 5, 2017

Hi Joe,

Hoping this email finds you well.. I'll contact John Marples separately but it would be fantastic if the plans could be rendered into g-code for production with a CNC mill.

It would reduce labour time immensely!

# Piver Nugget Still Sailing Strong

January 22, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Arthur Piver, Piver Nugget Trimaran

## Comments

### **Ryan Galloway**

January 22, 2016

Piver Nugget's are great! Thanks for sharing the story and pics.

I've been reading Jim Brown's Among the Multihulls (during this blizzard) and love the stories of the adventures and history of some of these early Pivers. Keep up the good work!

### **Ken Borgers**

January 30, 2016

Looks like a terrific boat lovingly restored, Greg. Thanks for taking the time to tell the story. Would love to see and hear more. How 'bout a video?

### **Stu Wright**

December 12, 2017

I bought Greg's boat last fall. I have since cut the cabin off and removed the cabin sole. There was waterlogged foam from the original build under the sole. That has been removed. I am converting it to a day sailor. I bought a copy of the original plans but can only use them as a reference since this hull in fiberglass and doesn't have the same joinery as the original. I'm in the process of adding floor supports to each side of the hull and raising the floor (sole) to work as a day sailor.

### **Small Tri Guy**

December 12, 2017

That's great Stu! Thanks for sharing your update about this boat.

### **Stu Wright**

December 16, 2017

I do have a question regarding the crossbeams. The originals were wood and pretty rotten. I would like to convert to square aluminum tubing. I'm not sure what wall thickness I will need. 4"square,.250 wall weighs about 4 lbs. per foot. Needing two, 12' lengths will weigh 96 lbs. Can I use .125 wall? Will that be strong enough? If I were to use the .250 wall, I could flycut holes in the beams to lighten them.

### **Dick Formo**

January 16, 2018

I built the main hull and outriggers in the old tannery in Redwood City. I moved to Santa Cruz and finished it,there. It was in the early 60's. My younger brother and I sailed down to San Diego. Wild ride off Pt. Conception at night ! Surfed all night,without a bit of sleep. Pretty crazy ! Fun Though !

### **SL**

November 8, 2018

It has been almost a year since your last post but I'll add my 2 cents anyway. Check on YouTube for sea clipper improvements. The guy switched from wood to alum tube like you want to do.

Also, could you update your work please? I have the same boat I'm struggling with completion.

### **HAPPY MILES**

April 24, 2020

I was Art's sailmaker and made all the sails also made sails for Jim Brown and many more lots of stories to tell out.

Art

# Bazooka Trimaran Press Release from Ezifold Yachts

January 28, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Bazooka Trimaran, Ezifold Yachts

## Comments

**Robert**

January 28, 2016

The old Bazooka appeared to be a nice solution for those of us interested in dinghy cruising in chilly waters. I'm glad Ezifold is manufacturing them now. I checked the website but didn't see any specs or description. I'd be interested in seeing them when published, and also info about shipping to west coast of USA. Robert

**Toby Johnston**

February 11, 2016

Dear Robert

If you would like a shipping quote and further detailed specification please email us or use the website contact us form and give the details of shipping and we can send pricing.

Initial specification can be found on the Company Facebook page under Bazooka Trimaran update with sketch's and preliminary details at

<https://www.facebook.com/Ezifold-Yachts-LTD-212821925457790/?ref=hl>

Regards

Toby



# Rare Glimpse of a Tradewinds Trimaran

January 29, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Tradewinds trimaran

## Comments

**Tony**

January 30, 2016

You can sort of see why she was a bit tippy – looks to have a fairly substantial rig for a 28 foot skinny hull tri.

**ROLAND**

January 18, 2017

tony, I too had a Tradewinds Tri for 5 years. when sailing upwind I found that the chine in the main hull when heeled was in line with the water at the top of the leeward ama and produced the highest speed. A 36' version, I think would be delightful.

ROLAND

# building a 6.5 Fast Cruising Foil Trimaran

February 2, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 6.5 meter trimaran

No Comments

# Dory Trimaran from "Project Windrigger"

February 2, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Project Windrigger

No Comments

# DIY Aluminum Boat Dock

February 3, 2016

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: aluminum dock, diy boat dock

No Comments

## ePoH – The Stabilized skiff

February 8, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: ePoH, ePoH skiff

### Comments

**Stefano**

February 19, 2016

Very nice boat and concept indeed. It should spur some discussion about dynamic lift provided by foils, rather than by buoyant amas. However this implies that the main hull can float level while unloaded, or loaded, without the support from one or two amas.

Perhaps a mixture of the two concepts: light buoyancy+ dynamic lift could be the right balance...

**Wade Tarzia**

February 25, 2016

Yes, interesting! Those ama-boards (?) remind me a little of the side seat on the Chesapeake Light Craft "Outrigger Junior", which is single outrigger. Though not truly a lifting board, the side-seat (non-ama-side) is thick and buoyant and reportedly does have some anti-knock-down function — a nice idea to have that dual capacity.

Randy Smyth's trimaran "Sissors" (of Everglades Challenge fame), in the last iteration I was aware of, went to wave-piercing bows but flat run aft on the amas to get some dynamic lift when they absolutely cannot be balanced out of the water.

# Online Trimaran Journal

February 8, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: trimaran journal

No Comments

# Small Trimaran in Wellington, New Zealand

February 9, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: small trimaran

## Comments

### Joost

February 9, 2016

Interesting thoughts about the sailarea. When you are sitting only inside the inner hull, so one does not sit one side of the boat to keep it in balance, it will only be the outer hull opposite of the windward side that will prevent the trimaran from being blown over. And therefore the amount of sail area depends on how much floatation that outer hull does have, how far it is placed outside the main hull but also how high is the center point of effort above the water. The rig on this trimaran is rather high above the water and the outer hulls, although rather wide bodied, seem rather short in length.

Working on my own trimaran (not finished yet) I also use 5 square meter sail area, 80 liter volume outer hulls wich are 1,4 meter out of the center of the mail hull. A first sail at 6 beauford wind (inner waters; on a lake) gave me the impression that the boat was on its limmits. But I use a rather traditional sail with centerpoint of effort + 2.5 meters above the water wich did not help much.

On the other hand with less wind it might be indeed on the small side. I came to the conclusion that I need to go back to my drawing board again! But that is also because I have no degree in naval architecture ;)

So . . . why not aks the designer of your boat for information (and share this with us if you like)?

As for me I can life with the idea I might need two sets of sails, one fermly less then 5 square meter and one may be a little bit bigger?

### Brian Nelson

February 10, 2016

Yes, I guess the centre of effort is a bit high, but the floats have plenty of volume, and the beam of the boat is about ten feet, or 3 metres. At no time did it feel like a float was going to be buried.

Interestingly, the boat was designed for a biplane rig, and in its original form it would have had substantially less heeling. AS it is now it seems pretty viceless to this inexperienced sailor. I will measure it up properly soon for anyone who wants to know more.

# Further Development of the Endorphin Trimaran

February 9, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Endorphin Trimaran

## Comments

### Bill Genevro

February 11, 2016

Congratulations on a important experiment! Could we get more information on this great project? I have a 3 meter Sea Clipper and the stern squats when the speed picks up. I love the boat but I think the foils shown in this article would make it better. Would like to get info on foil shape, foil size, angle of attack that works best.

Did the foils reduce pitching? Did you see speed changes up or down? Did the handling change? How do we persuade the owner to do a detailed article? Thanks for hosting the forum where this kind of effort gets recognition.

### Frank Smoot

February 12, 2016

Interesting concept, but a couple of questions:

1. Why is it so narrow? Increasing the beam would increase stability / reduce heeling, as well as providing less sail-sail interference.
2. What is the set-up time?

Cheers - "Trimaran Frank"

### ian

February 13, 2016

Nice to see the boat in action; the speed is very impressive both under sail and power. I also liked the way Russell just blasted over/past that very obvious sandbar at around 2:15 in the video, like he didn't have a care in the world.

For what it's worth, this kind of trim tab or plate is a very common setup on ski boats, drag boats and similar fast powerboat hulls that have a very high ratio of power to size/weight. They can be fixed or may be actuated manually or by hydraulics or electric motors, and some use a gas shock type connector that automatically adjusts to hull trim changes to even out pitching forces.

They are more commonly used to help a powerboat get up on plane faster but since a trimaran like this also has a very high ratio of power to boat size/weight it can benefit greatly from the pitch dampening effect, whether is is technically planing or not.

Like a planing powerboat with a powerful motor, tris with powerful rigs will tend to squat in the stern as the rig powers up from a dead stop but just as importantly the action reverses when power comes off quickly or the hull goes fast enough to overtake a wave and hits the back of the wave ahead of it...some of the resulting burial of the bow is just the boat plowing into the back of the wave from inertia, but as the speed comes off quickly the stern is also doing the reverse of the squat it did when taking off, compounding the motion.

In other words, with a very powerful rig that same motion can happen even in dead flat conditions if there is a sudden loss of power like you get in shifty winds. The tab doesn't directly prevent the stern from coming up this way (it can only lift the transom up), but what it \*does\* do is let you trim the boat by moving weight far enough aft to get proper trim at speed (weight distribution more like a typical fast powerboat), so that when that speed comes off rapidly the extra surface area and force vectoring of the tab counteracts the stern heavy static trim.

One other interesting way they can be used is to affect hull trim on the roll axis, by using one tab on each side and moving them independently, sort of like ailerons on an airplane.

Anyway, it's not common at all on sailboats and this is a great example of how designers of fast small tris with powerful rigs can exploit powerboat ideas to great advantage, and will probably need to if they want to keep advancing performance standards...I imagine one day these will be as common on this type of boat as they are on powerboats now.

Not sure if any of these tabs are ideal for use on small tris, but for anyone who's interested here's some links that have a lot of good info about them-

<http://www.bennetttrimtabs.com/>

<http://www.maximarine.com/products/lifters/>

<http://www.lencomarine.com/index.php/products/trim-tabs>

these actually look like they could work with little to no modification-

[http://www.nauticusinc.com/smart\\_tabs\\_automatic\\_trim\\_tabs.htm](http://www.nauticusinc.com/smart_tabs_automatic_trim_tabs.htm)

Those don't have the tracking fin feature, but the Smart Tab SX models do, and adding them to the original model would be pretty easy.



# Introducing a New Tiny Tri for DIYers

February 18, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bernd Kohler, Tiny Tri

## Comments

### Robert

February 22, 2016

Thoughtful sail plan. I love a mainsail that furls on the mast, simple lightweight, quick to adjust. The challenge of adding a boom is handled in an interesting way. The Hobie Bravo also has a furling main with a boom option, but I haven't examined it closely. And of course, jib booms on furling jibs have been around a long time; also addressing the problem.

I wonder at what points of sail the boom makes the most difference (being not much of a sailor myself)

### Bernd Kohler

February 23, 2016

On all reaching courses.

On a reach course. Sails without a boom can no longer be optimally trimmed.

Bernd

### JW

February 24, 2016

As a canoe sailor I was intrigued by your Little Tri but thought it too much boat for easy car topping. The Tiny Tri looks like it might be just what I've been looking for in a small trimaran. Can you provide a little additional information on the design? Will the 4 meter hull get up on plane? Does it tack easily? What speeds do you think it capable of? What are the cockpit dimensions? Does it have a self bailing floor. How is it sailed, from a seat inside the cockpit or on a tramp?

Very interested in this design, looking forward to your response.

### Bernd Kohler

February 24, 2016

Little Tri is a handful for car topping. It is a great boat for camping trips with a lot of room and also the ability to handle a big load. An extra weight of 170 lbs is no problem for the boat. The cockpit is 2m long and wide enough to sleep in.

Tiny Tri was from beginning designed for low weight. The hull weight a mere 27 kg. A canoe from the same length weights normally more as you will know. Only some skin on frame canoes can be

a bit lighter. The low weight comes from somewhere. So no self bailing cockpit. A cockpit floor will cost an other 3,5 kg. But it can be done of course. If a self bailing cockpit is used the seat will be very uncomfortable. I personal prefer to sail from the tramp. It is up to the builder. The cockpit is 1,35 m long and has a of 0,5m wide. Because of the big dagger board the boat will tack easy. The system has proven itself on the Little Tri which tacks like a very good dingy. The construction water line (CLW) is drawn on a sailing weight of 180kg (397 lb). At this weight the boat will be already at 7 knots in plane. The boat will be good for about 12 to 15 knots. I am always wary to give speed prediction for a small and light boat. Wave conditions will play a major role how fast the boat will be. Have fun Bernd

### JW

February 25, 2016

Bernd,

Thanks for the additional information. The design sounds perfect for car topping and the construction method ideal for a sharpie type hull. I am intrigued by your innovative use of a furling mast with a wishbone boom and your friction mounted leeboard and rudder arrangements. I will be placing an order with Duckworks and looking forward to viewing your plans and preparing for a new build.

Regards,

JW

### david kaye

March 16, 2016

You should use a leeboard. If it's hit, it will pivot up and not tear up your boat. Multiple angles fore/aft to get the proper angle for the point of sail.

### Bernd

June 16, 2016

Sorry David, missed your post. Moved from France back to the Netherlands.

The boat has a leeboard, only camouflaged. The board can swing back and forward for proper angle of sail

### anthony Downs

March 5, 2020

it might not be applicable to tiny tri, but what are your thoughts on non submersible amas against low buoyancy types. regards Tony downs

### Small Tri Guy

March 5, 2020

Hi Tony,

It depends upon the center hull. Some small tri configurations, for example, are really stand-alone boats that utilize low buoyancy hulls as amas, which serve to further stabilize the center hull. Other center hulls literally cannot be used apart from larger, higher-buoyancy amas that were purposely designed to work with those center hulls.

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Such amas tend to be the "non-submersible" kind. These latter types of boats are really "true trimarans" in the sense that the center hulls cannot work apart from their amas.

# Having Fun with a Bazooka Trimaran

February 25, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Bazooka Trimaran

## Comments

### Robert

February 27, 2016

Thanks for the personal account. I like the Bazooka design and hearing your impressions is valuable. I agree with you; I do like a furling main. A spinnaker is a nice compliment to a boomless main on a run or broad reach (I have a Triak and I think they got the sail rig right). A jib and whisker pole would probably also be great on downwind runs. Do you think it could be paddled effectively when the wind dies? Robert

### Tony

March 3, 2016

Hi Robert,

Paddles well with good room when sitting on forward seat. Good clearance of the amas and akas in this position.

For furling I am seriously considering copying the Hobie T1 concept. Will need to change from horizontal battens to vertical on the main sail though. Will most likely trial this just using reinforced sail tape and some fibreglass rods before I get too carried away making the furling bits.

Thanks for your comments.

Regards

Tony

### Tony

April 6, 2016

Hi Any and all,

Just a quick update on point 2 above, Performance in Waves.

Spent a few days over easter at a place called Jurien bay here in WA. Nice little place and camped just up the coast at a place called Sandy Bay.

Mentioned above about being in around 1-2' chop, also mentioned in another post about being in up to 4' boat wake waves.

Well we managed to top that on holidays, caught out in a 25 to 30 knot sea breeze which is typical here in WA but compounded by a rising swell and white cap waves.

Had to do around 4 runs out pointing to the breeze at around 30 deg and side on into approx similar angle to the swell so that we could tac back home to our bay.

We drive an 80 series landcruiser with a lift so it stands at around 6' tall and by my wife's estimates (and she does not exaggerate) the larger waves where as big / tall as the car with the average being at around 4'. Added to that they where capping and steep and breaking over us on the windward ama and into the main hull.

We had one rouge wave which I had to turn into which in surfing terms we essentially duck dived through, my guess is that it was around 8' on the face.

So the bad news... we broke the boat.

The good news... we kept sailing not knowing we had broken the boat and made it safely back to shore.

The break was not too bad, it was where there is a hole for the pin that attaches the front ama to through the hull and allows the locking clamp to pull down on. Essentially it fractured so that the side of the hole broke out and off. Most likely when we hit the big wave.

Once again I have to give credit to this little boat, although the conditions where daunting at no time did we feel unstable, very wet, yes, getting cold and shivering, yes, safe, yes.

The boat performed admirably, even when half swamped on numerous times she self bailed very quickly, kept moving forward allowing rudder control.

We had 4 on board, 2 adults and my sons 14 and 11. All up load was around 220kg of people + a 2.5hp motor, fuel, and beach gear etc. So probably overloaded and especially for the given conditions.

I would not however recommend that anyone try these conditions on purpose in this size boat. Being the "captain" I was probably more worried than the crew who even though we where over 2km from shore thought it was a blast.

Next purchase – Another Bazooka. Now we can have twice as much fun with my oldest son, his wife and my daughter in tow.

<http://www.gumtree.com.au/s-ad/cannonvale/sail-boats/bazooka-3-6-trimaran-sold/1107939994>

Was thinking about a larger tri to fit everyone on but it works out a way lot cheaper to get more bazookas ;) like thousands and thousands of dollars cheaper. So for less than \$4k we can take out 8 people for a day of sailing and fit both boats on my roof racks so no trailer or boat ramps to contend with. Gotta be happy with that.

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Bring on more holidays!!

# Using Camtasia to Promote Marine-Related Products & Services

February 26, 2016

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: Camtasia, marketing marine products, video marketing

## Comments

**Tom Henry**

February 27, 2016

If you are interested in turning your video skills into a revenue stream...

Consider that your audience may rather (for selling a boat in the tens of thousands anyway) pay you 2 or 3 hundred dollars as opposed to paying for the Camtasia swe and then having to master that, maybe poorly, before they can package the stills and video that they be able to send to you and get it done properly. Just saying.

**Small Tri Guy**

February 27, 2016

Hi Tom,

This post was created with "marine product sellers" in mind. An individual does, as you indicate, have to be motivated to both purchase the software and learn it ... and that will only happen if they intend to make multiple videos. Those who regularly promote something are the ones who tend to be motivated to learn software like this.

# Twin Self Furling Jibs – Let's Try It

March 3, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: twin jib sails

## Comments

### Travis

March 4, 2016

This is something I've been wanting to try myself. Roller furling jibs are so easy to use and Russell Brown credited some of the speed of his proa to the fact of the large gap between his offset jib and main sail. He believed it directed the wind around the main sail better. It would be interesting to see if a gain in performance is noticed in this set up with the main sail used with the larger space between it and the jib. Plus you have the advantage of the top of the sail being tilted towards windward which should provide more lift? Many sailors in my area are often seen flying the jib only simply because its so easy to use compared to a main sail. I've always loved the idea of the aft masted boats with jibs only and most of them report good performance. I would love to see this idea put into action.

### Small Tri Guy

March 4, 2016

I agree Travis. Thanks for sharing your thoughts here. If I owned a large cruising multihull I'd definitely want to try this type of rigging ... but I'd never thought much about it for smaller multis until Tony mentioned it. I'd love to have some more discussion on this topic!

### Tony

March 4, 2016

Thanks Travis,

Appreciate the comments.

No main sail only jibs.

Looking around for cheap old Hobie jibs to trial the concept before committing too many resources to it.

### Hans Schipper

March 5, 2016

I like the idea from the down-pressure at the upwind side and the up-pressure at the downwind side. However I decided not to use this idea at mij Cool Finn. A dutch college builder sent me a picture from about 40 years ago and as far as I can see is the performance of the windrider Rave V what uses the same idea in mainsails, not performing as good as expected. When this idea of an A-frame rig has not developed and been used more often in time, I think the idea is not as good as it looks. I think that you miss the effective working together from a jib and a mainsail in this kind of rig.

### Tony

March 6, 2016

Thanks Hans,

Twin Jibs is only one part of the equation, I am actually going to do something further than this that has never been done before in sails.

It will use the same structure and set up but will offer significantly more sail area.

But first things first and proof of concept in small steps.

Regards

Tony

**ian**

March 6, 2016

Probably the most critical part of successfully adapting a jib-only sailplan to the current mast step location is going to be correctly balancing the center of effort of the sails with the hull's lateral resistance.

That's a big part why otherwise standard monos with these kinds of rigs step the masts so far aft; to get similar sail areas to a more typical rig (good performance) without creating a boat that always wants to turn to leeward (good handling).

You can sail most sloop rigged boats with a jib alone without inducing extreme lee helm, but the helm balance is still probably not ideal and just going straight creates more drag than necessary. You also have to remember that a sloop or other fore-aft rig under jib alone is running under severely reduced sail, even with a big jib, so you don't really notice how poorly that configuration may handle at speed.

It doesn't matter most of the time when you'd do this on most sailboats, in my experience you are usually either lollygagging around on purpose or it's stormy and you want to keep speeds down and sail area minimal...but for full time use I think the proposed rig may be a lot of trouble and expense for less than optimal results unless you are going for a minimally powered or under-powered rig.

At the very least I think for handling's sake the new forestay location would need to move aft some to compensate for the imbalance created by the loss of mainsail area, which means even less potential sail area.

This all assumes that you aren't changing the size and location of the rudder and daggerboard, which is another possible solution to balancing things out, but that adds other expense and issues.

Here's a pretty nice and fairly typical aft mast rig that really shows how much farther aft the uppermost point of the foretriangle area sits in relation to the hull and CLR-

<http://www.boatdesign.net/forums/attachments/boat-design/9702d1161057217-wishbone-sailing-rig-short-wishbone-1.jpg>

without moving the masthead aft significantly (more than you could by raking it) moving the jib clew aft seems like the only CE/CLR balancing option you have using the current rig alone...and that eats into your foretriangle area, which is all you have.

using furlers and offset forestays allows for a large genoa-like sail that adds more area aft, but the windward sail might not be fully deployable- in the cat pics that sail's sheet block position and trim looks pretty awkward and potentially very problematic in a gust or in close quarters. At best it looks like there's a lot of chafe involved.

The opposing force vector thing of this style of A-shaped twin sail rig is a big question mark for me as well; I like the lift potential of a jib-only configuration on a tri but the reversed windward side forestay angles and related forces seem all wrong to me...that said I fully admit that may be completely wrong aerodynamically; it's just gut feeling and I've never sailed one.

But the control and other practical operational issues remain for the windward sail. I'd also caution that the rigs in the study cited are very specialized and not just sloops with big headsails, and a lot of their design is no doubt tied to the nature of monohulls and heeling and their effects of general hull and steering trim, that don't really apply to tris.

FWIW, one possible way to adapt a small tri to this kind of rig would be to attach longitudinal tubes or similar structural members to the akas on each side as you describe, with elbows or similar receiver sections in the rear that allow for a true A-frame or wishbone mast assembly to step into them much further aft of the current step...

then you could ignore the original mast location and would have a huge foretriangle area to fill with jibs and staysails like the typical aft mast rig.

If you had this setup you could also use a central forestay and backstay (if you needed one) to help hold the mast up but the sails could be on their own stays that could also have their tacks slewed to leeward to take advantage of the tri's greater width (maybe on a track system), so that *all* of the canted sails could develop lift that was all concentrated to leeward of the main hull centerline, and they could work in unison aerodynamically like a typical fore-aft rig.

This also would allow you to set it all up asymmetrically when you wanted to but still keep the rig centered and "normal" for short tacking in close quarters and similar situations where the opposing forces of the proposed twin sail rig might be an unwanted complication.

#### **Skeezix**

March 7, 2016

A big question with greater use of jibs, especially with an aft mast raked forward, is how gusts affect the rig. Gusts put more curve in the luff and power up the sail when it should be powered down. This might be countered when going upwind in part by the tendency of the CE to move forward, and the force vector to turn more toward the bow into the deeper belly, and therefore the increase of windward helm helps. In any case one can see that the forestays can change quickly.

Now in this case the weather forestay should tighten and depower the weather jib, while the lee forestay slackens and powers the lee jib. And the pole connecting them will want to shift with the difference ... not sure how. It's going to take some learning in a lot of conditions, especially with whatever else is planned to increase sail area.

#### **ian**

March 7, 2016

Hi again-

here's another interesting rig from this site's archives that uses a wishbone style mast that seems very adaptable to an aft mast configuration using jibs and staysails-

<http://smalltrimarans.com/blog/mediterranean-sailing-in-the-latin-lover-trimaran/>

One thing I notice with many of the aft mast rigs is that as they go for maximum sail area they begin to resemble schooners as far as sail area distribution and where those big sails develop power and as Skeezix points out how that can shift depending on point of sail.

The overpowering when off the wind scenario is very common to schooners as well, and not reefing that big powerful sail area aft early enough in big winds on reaches can create some terrifying situations.

The other staysails and jibs and "flown" sails that aren't on spars on a schooner also tend to do exactly what Skeezix describes in gusts off the wind so that letting off the sheets may not do much or may power you up.

In big winds the options to depower can be very limited and even a deliberate gybe in a boat with lots of sail power concentrated aft and/or in unstayed sails can be hectic, to say the least.

In my experience that kind of quick moving situation where a jib or loose footed sail can alternately power up and flog when off the wind in big gusts is also where a furler equipped sail is most likely to get jammed up if getting it reduced quickly overrides any need to be dainty about the mechanism.

None of this is a deal breaker but worth considering as it relates to the ease of operation and care/planning/technique necessary to operate safely.

#### **Tony**

March 7, 2016

Hi Skeezix and Ian and thank you both for your informed comments.

The balance of the rig etc. is probably more critical on a bigger boat than a small beach tri where it will be easy to re rig and adjust. It's the concept of the sail plan that is intriguing to me, I can sort the nuts and bolts out along the way a bit. Than being said having more minds looking at this before I set anything up is certainly helping in

coming up with a plan.

One thing you said Skeezix has actually changed my approach quite a lot.

"FWIW, one possible way to adapt a small tri to this kind of rig would be to attach longitudinal tubes or similar structural members to the akas on each side as you describe, with elbows or similar receiver sections in the rear that allow for a true A-frame or wishbone mast assembly to step into them much further aft of the current step..."

I have another tri which is a supernova (can look up here on small tris) it has a broken mast at the moment and I have sadly neglected her. However she does have significantly more mechanically adaptable amas and akas than the Bazooka, it would not be difficult to mount an aft A frame with stays, I already have one jib for her and could easily find a similar sized other for proof of concept. It may be easier to use this boat to proof out the concept than to butcher what is already a very nice little boat.

Will give this more thought and keep this post updated as time allows.

Regards

Tony

**Tony**

January 9, 2018

Hi Small Tri guys,

Tried a single front larger furling jib on my small tri without main as I have been unable to find a matching set of small jibs.

Got to say it worked an absolute treat. Normal main sail area is around 9m<sup>2</sup>, tested jib was about 7m<sup>2</sup>. I had the ability to furl the jib to reduce the sail area and completely furl and drift fish.

Pointing was better than with main sail, however balance was out as it constantly wanted to pull around to lee side and de-power the rig.

My little tri does not have a dagger board, it has lateral fins built into the hull that improve sideways resistance. Unfortunately these were not sufficiently up to the task of keeping her straight. Not to worry though, as I have 2 of these boats and can adapt the 2nd rudder forward as a dagger.

Between this, the fins and the rudder I should be able to come up with a balanced rig.

Next step will be to rig for 2 jibs and see if I can balance the boat up accordingly. Alternatively I may even look at redesigning the main sail to furl around the mast like a Hobie TI does.

**Small Tri Guy**

January 9, 2018

Thanks for the info Tony.



# Macgregor Venture Hobie Trimaran Update

March 10, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Macgregor Venture Hobie Trimaran

## Comments

**Greg P**

March 12, 2016

Travis

The boat looks great Especially like the pully system for lifting the outriggers. The biggest problem I have with my Hobie plus canoe is lifting them by myself. Very similar to a mast raising system. a close up of how you attach to the hing point would be nice. another case of why didn't I think of that, I love this website!!!

**Travis**

March 13, 2016

Greg,

I'll try to get a picture of it for you this week. Basically the 2x4 sits directly on top of the hinge bolt and I have a piece of aluminum that is 1 1/2 inches wide by 1/4 inch thick and about 10 inches long screwed to each side of the 2x4. The aluminum protrudes past the end of the 2x4 about an inch or so. The aluminum has a notch right in the middle of it the same size as the hinge bolt. That notch slides over the hinge bolt to keep the 2x4 from slipping off of the hinge bolt. Make sure the notch allows the 2x4 to sit directly on top of the bolt. That way the pressure is not all on the aluminum pieces. It is distributed evenly across the hinge bolt and the 2x4. This same system will be used to raise my mast as well. I used a 7:1 pulley. You can buy it new on eBay new for about \$15 and it includes the rope. It's rated at 2 tons and works great to lift the amas. My amas weigh 120 lbs each.

**Greg P**

March 16, 2016

Thanks

Going to put something together this weekend. I use my main sheet

to raise my mast.a snap shackle on both blocks. Easy to disconnect and re purpose, less to carry and less to forget

# A-Rig on Foiling Trimaran (1972)

March 10, 2016

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: A Rig, foiling trimaran

## Comments

**Tony**

March 14, 2016

Wow, I love this design. Very similar to a theoretical craft I have designed and also very much what I had in my minds eye for the sailing plan for the Bazooka or the Supernova project.

Thanks Hans, appreciate the post up and thanks Small Tri guy !!

Regards

Tony

**Small Tri Guy**

March 14, 2016

Hi Tony,

I am thinking a trip to a library that features the full article about that a-frame rig (as opposed to just the pics) might be a good investment in time prior to building one.

Joe

**ian**

March 15, 2016

Hi again,

One thing that occurs to me as I poke around online looking into this rig is that this one and the WR Rave IV are both foilers...the WR designers notes speak of the choice having quite a bit to do with anticipated foiling conditions-

*"The design object for ability to point into the wind will be a desired off wind angle of 35 degrees and a total tack angle of less than 90 degrees to be comparable to most modern mono-hull sail boats and about 5 to 10 degrees better than most modern multi-hull boats. The design desire is to be able to foil at these closer beat angles as well. This can only be accomplished by aligning the sail forces to the water side forces to be similar to a mono-hull boat design. To do this the center of pressure for the sail must be outboard and leeward to the center of water pressure for the hulls and foils. The design solution to do this is to have an A frame mast arrangement with there being two primary masts connected at the base near the forward AKA and on the AMA and the top of the Masts joined together in an A frame shape. This design significantly reduce the bending loads on the mast and moves the center of sail force outboard past the center of pressure of the foil water side forces. This allows for a significantly lower weight for the mast and rigging. Because the center of force is moved outboard and the force acting on the sail has a lifting component the sail force area can be much larger. It is estimated that each sail can be 1.25 time larger and have the same heeling forces on the foils and AMAs. This larger sail area and the moving to the outboard position will help the boat to foil at much lower speeds in addition to the benefits of better pointing angles. The exact location of the mast attachment to the AMA will depend on optimizing the sail forces to the foiling forces. There will also need to be an assessment of the rake angle forward or aft to optimize the sail forces."*

<http://www.windrider.com/blog/rave-v-designer-notes/>

I see a handful of other non-foilers with this inverted V sailplan, but nothing much about how they've performed.

This was interesting though-

*"We had an overnight mishap which was both bad news and good news. Leaving the boat in a slip in the marina overnight, the forestay pin broke and the double mast came down during the night. It was found resting backwards on the akas, with no damage to the carbon fiber akas or the mast. The good news is that the pilot or passenger would not be harmed in a de-mast scenario given the A-Frame shape."*

<http://www.windrider.com/blog/rave-v-in-the-water-102515/>

**Robert Vincent**

April 12, 2016

Low flying boats.

That was a long time ago. I built models some static and some sailing. After leaving sailing for flying gliders and decades of marine design work, I have once again visited the brain sprain of hydrofoil sailing.

I have built and sailed a few hydrofoil stabilized boats and I am now thinking about a hydrofoil stabilized small cruiser of about 5.0 to 5.5 metres LOA. Foil stabilized boats do not require the power to weight ratio of flying hydrofoils and that eases the loading maximum while retaining improved handling and stability, which in turn puts more power into the rig.

The boat exists as a CAD model.

Thank you

Robert Vincent

**Small Tri Guy**

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

April 12, 2016

Greetings Robert ... thank you for taking time to let use know what you're presently doing!

# Jim Brown on Arthur Piver's Frolic & Nugget Trimarans – Part 1

March 17, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: Arthur Piver Frolic

No Comments

# Jim Brown on Arthur Piver's Frolic & Nugget Trimarans – Part 2

March 18, 2016

Categories: Small Tri Info - All, Small Trimaran Audios, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Piver Nugget Trimaran

## Comments

**ian**

March 18, 2016

very cool to hear such a detailed analysis from someone who was not only there but has the expertise to make an informed assessment of the early boats and their issues.

For anyone interested, many if not most of the boats and designers mentioned in this clip are covered in the old AYRS articles linked in this previous post (in some cases they wrote them)-

<http://smalltrimarans.com/blog/small-treasure-trove-of-early-ayrs-trimaran-articles/#more-12834>

page 15 of this one has the plan views for Tchetchet's Egg Nogg II that Jim references; sadly you don't get the entire aft mast sail plan but there's enough to get a feel for the general layout-

<http://www.ayrs.org/repository/AYRS023.pdf>

FWIW, while the rudder profile is definitely old school and no doubt not really up to the task, the centerboard does appear to have an aspect ratio in the range Jim describes, at least twice as tall as it is wide- it's antique-y looking now and doesn't get the full use of the depth that a non-tapered board would but lots of boats use an identical shape to this day...and at least on its design waterlines the main hull stem and stern posts are both out of the water due to what was pretty extreme rocker for that era in anything that might have had that kind of stem/stern, like a sailing canoe- it's far more like a modern tri in that respect than anything Piver or anyone else designed in the ensuing couple of decades, at least.

The amas have less rocker than the main hull but they don't appear nearly as straight as Jim's comments and those of others might suggest...I can definitely see where the crossbeam dihedral might have been inadequate to prevent the kinds of bad tacking manners and other issues Jim describes.

A look at the same angles on the original Egg Nogg in the cover photo here-

<http://www.ayrs.org/repository/AYRS006.pdf>

- seems to indicate that Victor was aware of where the problem was and was indeed refining his designs just as Jim describes later people doing.

Jim he was there and I wasn't and I have nothing but respect for him and his skills and knowledge, but as I said in that previous thread it looks to me based on the plans and photos of Tchetchet's boats that they really weren't as inherently flawed as one might assume based on the scant reports about them, and perhaps just needed a series of relatively small design tweaks and better suited materials and construction techniques to be superb boats with lots of forward looking features that took years to catch on elsewhere.

Put another way, when I look at a typical modern state-of-the-art maxi tri or small tri racer at the cutting edge of speed and technology it looks more like Tchetchet's boats than anything else Piver and Brown and Cross and other big names of the subsequent trimaran boom of the 60's-70's designed, but for his old-timey rudder and board profiles.

That isn't a slam at any of those designers at all; I think a lot of the modern race tri elements are all wrong for the kinds of boats/uses they were going after and their designs were far more adapted to the materials and technology of the day.

Stuff like reverse bows/transoms are often based on beating racing rules so it's unwise to assume that they are there to better sailing performance on any boat, multi or monohull...and I'm sure lots of maxi tris with dead straight runs and flat bottomed amas are no fun at all to short tack, and yes they can pound themselves apart in a seaway and are still noisy if they don't, they stuff the amas and try to pitchpole, etc....they certainly aren't perfect, even for their intended use.

But the fact remains that the Egg Nogg series got remarkably close to modern state-of-the-art designs \*and\* unlike everyone who came after him Tchetchet managed to do it with virtually no prior trimaran designs to reference and learn from, except his own.

It also bears mentioning that Piver's early designs had a number of revisions made when things like the square section amas on the original Nugget and his stubby ama fin lateral resistance scheme were found sorely lacking...and the solutions were (imho) more of a move towards Tchetchet's designs than away from them.

# Still More on the Classic Piver Nugget Trimaran (Jim Brown Audio Interview)

March 24, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: Arthur Piver, Jim Brown, Piver Nugget

## Comments

### Anne Hutchinson

March 25, 2016

Hello Joe and Jim, Anne Hutchinson (Steg) here. Thoroughly enjoyed hearing your voice Jim and listening to your stories regarding the Nugget and early Piver days. Still share your keep it simple philosophy not only in boating but in general. I am living on St Croix and my partner has a 25' tri designed and built by a local man here. Its more of a day racer than a day sailer and a little to much power for our 75 years, but we have enjoyed it. When Bob Steg and i were in Fiji there was a guy anchored next to us who was sailing around the world in a Nugget. Could be Cross's mystery sailor. Enjoyed reading your book "Among the Multihulls", especially the part about the visit with Mark H. May warmest regards to Joanna and you. So glad to have found Joe's website too.

### Phil Thompson

March 25, 2016

Hello

Thanks so much for the info on the Nugget. I had one when I was 15 and I am still building and sailing multis now I am 48. I love hearing stories about the early multihull lore. I would be very interested in hearing about the design spiral of the Searunner series.

cheers

Phil Thompson (Australia)

### Lefty Rowe

March 26, 2016

It was about 1980, when Russell Brown sailed his small Tri south.

Russell was but 16 yrs. old, sailing without aux. power.

He stopped in Beaufort, N.C., and spent about 3 days on my 32' Cat. 3 days of rain held up his trip.

does anyone remember what model that boat was? I remember it as a 16 footer, open hull.

He was a very adventuress young man.

Lefty Rowe

### Harish kumar

November 21, 2021

I ENJOY THIS TALK AND LEARN A LOT OF THINGS

# Last Word on Piver Nugget (for Now)

March 28, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Gary Dierking, Piver Nugget

No Comments

# DC-3 Trimaran Under Construction

March 29, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Constant Camber, DC-3 Trimaran, John Marples

## Comments

### **Ken Borgers**

March 29, 2016

Chuck,

Thanks for sharing your project! I've been looking for word of someone building a DC-3 since it won the Wooden Boat magazine design award a couple of years ago. I hope you'll keep us posted on progress. You mention you're planning on sailing in SoCal; I'm in Long Beach and would love to have a look sometime. And if you need help at any point with moving stuff around, etc., please let me know.

Ken B.

wavsalr[AT]hotmail.com

### **Scott Iverson**

April 6, 2016

Thanks so much for sharing your status with us Chuck! Your build seems to be going well. I recently purchased DC-3 plans and am looking over them to get the process straight in my mind. Reading John's plans really is a treat. I bought plans for his little Gull dingy at the same time, thinking I might build one as a warm-up to CC before starting the tri.

What are you thinking about rigging the boat? John offers good specs for mast, boom, and rigging, but I am undecided about actually acquiring spars. I'd like to make some preliminary decisions before I start building, to have some idea of a budget. I'll also call John and ask his thoughts when I have a list of questions ... so as not to pester. :)

— Scott I. email shhcret[AT]gmail[DOT]com

### **Stefano**

April 8, 2016

For Scott Iverson: Unless the specs are very stringent, you would be surprised to learn how much stuff there is to be scavenged around for very little money. Three suggestions here: Tornado, formula 18 and formula 20 trimarans and catamarans. Add a diamond on masta and buy regatta dismissed sails. I have two europan dacron tornado sails given to me for free. If they are too flat for the anticipated speed of this tri (might well be) then look into 25 ft speedy monohulls such as platu 25 or similar. They tend to discard sails and rigging at a fast pace.

### **Eduardo Reyes**

March 10, 2021

Hi anyone know the status of the building?



# Easy Reefing Sail on a Small Multihull

March 29, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Gary Dierkring, Ulua sailing canoe

No Comments

# Ulua Double Outrigger Canoe Sailing in NZ

March 29, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Gary Dierking, ulua double outrigger sailing canoe

## Comments

**Stefano**

April 1, 2016

Beautiful boat, finish and surroundings. I would love to learn more about this specific Ulua boat because I haven't seen two alike... especially length, amas and folding cross beams.

Thanks, Stefano

**Frank**

April 3, 2016

Stefano,

The Ulua is 24ft long, the ama's are scaled down version from Gary dierking's "va'a motu". Its built for speed but also tough here is a video from the other day cruising and motoring (2hp Honda) down the coast of Coromandel to Manaia harbour to the wife's land.

<https://www.flickr.com/photos/39922183@N03/25894678590/in/dateposted-public/>

Another link to some raw video of inside the coromandel Harbour under sail.

<https://www.flickr.com/photos/39922183@N03/25894678590/in/dateposted-public/>

**Frank**

April 3, 2016

Stefano,

Must have been tired last night both links are the same. Here is the link of sailing and motoring down the coast to the wife's land.

<https://www.flickr.com/photos/39922183@N03/25857289510/in/dateposted-public/>

# Bazooka Trimaran Updates on Facebook

March 29, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Bazooka Trimaran, ezifold yachts

No Comments

# Hikurangi Sailing Canoe Up Closer

April 7, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Gary Dierking, Ulua double outrigger, Ulua sailing canoe

## Comments

### **Stefano**

April 8, 2016

Really neat and wonderful finish.

I have a question about the hinges. I cannot figure out how they would keep the akas from folding inwards, under the push of the water on theamas, and the pull of shrouds on the folding section of the crossbeam (aka).

### **Tony**

April 8, 2016

I made the hinge mechanism, the pin on the left locks into a tongue on the underside ;)

### **Frank**

April 9, 2016

Tony is the engineer who designed and made all the fittings on Hikurangi and also built the SS trailer. I will post a photograph of the underside on Flickr later and leave a link. Just to explain a bit further; on the ends of the iako's we glued neoprene so that they pre-load when lowered into position. Then its just a gentle push when slipping the pin through the iako into the tongue. Elegant strong and very simple.

Cheers FWG

### **Wade Tarzia**

April 11, 2016

A very nice set-up. Interesting idea for the folding akas — looks more doable for the home builder with less complex processes (though I like Gary Dierking's hinge, and it seems as though it would be quite strong, though perhaps needing some professional machining).

# What Makes Trimarans Fast

April 11, 2016

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Tony Grainger, trimarans

## Comments

**Scott**

April 15, 2016

Tony's analysis is an excellent one. Thanks guys for sharing it here. I wonder if others noticed what seems to be a slight emphasis in some of his presentation that favors his own designs. Nothing inaccurate in any way, but a little spin in support of how he chooses to balance the various design choices.

**Small Tri Guy**

April 15, 2016

Very slight emphasis perhaps.

# Seaclipper 13 Trimaran Building Project in Canada

April 14, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: John Marples, Seaclipper 13 Trimaran, Searunner multihulls

## Comments

### stefano

April 14, 2016

With a design statement of "300 lbs payload capacity" I wonder how – especially in the average USA household – this can match the claim that it is a boat for "family outings"... ought to be a very thin members family indeed.

I think that these narrow hulls work beyond 16 ft or more. Shorter than that, low payload or sinking below displacement water line, thus submerging 3 hulls, is their evident limit.

### Small Tri Guy

April 14, 2016

I don't think the idea of "family outings" is meant to convey the boat will carry all sailing family members at the same time. It's certainly designed to carry one or two adults ... a small child could also fit in there with parents too.

### Scott

April 15, 2016

John also puts a low payload on his 27' DC-3, which won the design competition for "expedition cruiser". That tri lists a dry displacement of 2400# and loaded displacement of 3000#. 600 pounds for two crew and supplies seems quite low. I think this is John being prudently conservative; quite refreshing when typical marketers overstate capabilities. As to sinking three hulls, that surely is far from true. The design displacement waterline typically puts the amas barely on the surface. Further loading is buoyed by all three hulls, and each ama typically can displace 105% or so of the design displacement. John has said he prefers the lee ama to go under rather than to fly the main hull.

### Stefano

April 15, 2016

Scott... you are quite right here: "sinking three hulls" is a wrong expression. Here is where my command of English as a foreign language shows its limits. What I meant to say is that – as I said you are quite right here – if you go beyond designed payload, certainly enough the boat will not sink, but when the narrow main hull will submerge beyond DWL, you will have 3 hulls touching the water and thus drag – and also drag interference (homage to Mr. Huygens is intended). I can tell you from direct experience, that a trimaran pushing 3 hulls in the water may well be stable, may take more load than expected, but will be as slow as a barge and – at times – will be hard to steer. All multihulls have many advantages. Sensitivity to load and of course over-loading, is the main drawback in these boats.

### Tom Sorensen

April 18, 2016

I have the 3m sea clipper. I think this is an excellent next step up. There's not even room for my 22lb terrier mix to get in the 3m with me.

### Small Tri Guy

April 18, 2016

Tom, are you saying the SC13 is really more for single-hand sailing?

### Scott

April 19, 2016

I apologize to Stefano for criticizing what was only his tiny vocabulary error. I agree that overloading this or any tri removes many of the advantages trimarans have. Perhaps in addition to the other typical monohull stats we see posted for boats, multihull stats for the public should mention the immersion rate (i.e. pounds per inch beyond dwl) whenever possible. Pretty useful info for "shoppers".

### Stefano

April 23, 2016

Scott... no worry and no apologies needed. I was just trying to make my point. The point is that I own a small tri, self built, and once I did the most stupid thing possible. I shortened from 16ft 10" to 14ft 2", it to make it more easily cartopable. Obviously, the hull was now more immersed when loaded (2 people). But I could have never ever guessed what less than 2 inches immersion would have done to the hulls performance. It was literally havocked... instead of skimming the surface and getting bow lift and planing already at the top range of a force 3 BFT, the hull was now dragging painfully lots of water, and the two amas had to come in support of the reduced main hull displacement, thus having 3 hulls trailing in the water. The bottom line is that submerging a monohull by an inch will not change its attitude that much. If you do so with a small multihull, the result will not quite be the same. Designers should state what the loaded displacement is. I have seen a 32 ft catamaran design overbuilt and with with an excess of 800 kgs. It would steer very badly in a 3 ft following sea due to immersed bows, and react very slowly to sail changes. I was so negatively impressed that I refused cruising (blue water) on it.

### Stefano

April 23, 2016

I really meant "an addition of 2 inches draft..."

# Alien Trimaran – Not From Outer Space

April 19, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: alien trimaran

## Comments

### Stefano

April 19, 2016

Beautiful boat Mike. Could you give us some specs figures? light displacement, loaded displ.. length oa.. Beam oa

I would also like to know more about the aka tubes specs and how you built the composite sleeves in which the ( two halves?) seem to slide to fit.

Last question: I see lower struts to the amas. Do you also install bow-aka struts or are the akas strong enough to hold on their own ?

Thanks in advance for any input

Stefano

### Mike Schreiber

April 20, 2016

I did not participate in the lay up of the hulls. The basic build and design was accomplished by Chislett boat builders of Rhode Island. I took it over as a raw project, and refined it to make it much more usable, safer, stronger, and more practical. I don't know the actual displacement weight, but guesstimate between 600 and 800 lbs. The slide through tubes are a snug fit for the 2 and three quarter aluminum tubes. The tubes would flex under load and are stabilized not by struts, but wire waterstays, fore and after, they allow tension for the shrouds, and running back stays. In under 10 knots wind speed, the boat is comfortable and dry, but in windy choppy conditions, you might as well be in a washing machine. Great fun on hot Florida days.

### Mike Schreiber

April 20, 2016

Sorry I forgot to add numbers I do know. She is 16 feet wide, 22 feet long, and 28' 9" tall. The dagger board is about 5 feet long and draft board down is 3 feet. It takes about 2 hours to set up, and under an hour to break down. It is painted with vivid white bottom paint and kept in the water at a dock during the winter when we are at our Florida home.

Mike

### Erik de Boer

April 21, 2016

Hello Mike,

My name is Erik from the Netherlands.

I think this small tri is one of the most attractive tri's I've seen so far, next to the fantastic Osprey tri! Is the the main hull a one-off design? You named the Whirlwind, but up till now I didn't find anything about this type. Do you know more about this Whirlwind? It seems to be a perfect main hull. In Holland old Nacra cats are reasonable priced donor cats.

Kind regards, Erik

### Stefano

April 21, 2016

Erik de Boer... reading more attentively, Mike states the fact that Alien has a "custom centre hull". Whirlwind is referred to the main ( sail) I beleive.

[http://www.thebeachcats.com/pictures?g2\\_itemid=74158](http://www.thebeachcats.com/pictures?g2_itemid=74158)

I might be wrong, but this is my interpretation: lot's of parts are taken from donor boats, including sails, but the main hull was built on purpose.

### Michael Schreiber

April 22, 2016

Sails were originally from other boats but I had a black pentex jib custom made and also the main is now custom from Whirlwind Sails, it is also a black pentex mylar square top work of art the center hull is foam and glass vacuum bagged and now has the deck raised a few inches, the stern and forward bulk head doors were sealed, and access below is now through deck hatches. The floats weigh about 68 lbs each. I have never buried them completely, they have good buoyancy. The screecher is not custom, but off an F-18.

Alien is always fun, but sometimes thrilling. We can remove the sail cover and snorkel cover 8n about a minute and sail her off the dock on short notice. We go out almost every day weather permitting and always get noticed by most boats on the Bay. Cheap, solid, safe, fast, good looking, top quality fit out and.....fast.

### Tom

April 22, 2016

So....did you make the amas? Any pics of that?

### Erik de Boer

April 24, 2016

Mr. Michael Schreiber,

For now my last question; I' m not a boatdesigner but I'm clever enough to read a drawing and able to construct, are plans available of the mainhull? If so, perhaps at the Chislett Boat Builders?

Kindly regards,

Erik de Boer, NED

**Mark**

April 26, 2016

Thank you for the compliment Erik! We had a lot of fun designing and building Osprey!

Mark Zollitsch, SV Osprey

**Michael Schreibman**

December 25, 2017

Alien is now for sale she has had a complete refit, and is the best shape she can be in. Everything I'd ready to go. Come and try her out, she is on Pine Island, St James city Florida \$10,000

Come and get her

**Mike Schreibman**

May 14, 2018

I got a few calls, but so far nobody has come out to see much less demo the alien, she is now in storage for the summer at fort Myers, but will be back on the water next winter. She now has all synthetic shrouds!

**Michael Schreibman**

December 3, 2018

Alien has a new Honda 2.3 outboard, and all synthetic rigging and is actively for sale in st. James city Florida.

Call 239 896 7552

Come and get the best bang for the buck in multihull sailing

**Michael Schreibman**

February 4, 2019

If someone wants Alien, call me

Mike Schreibman

239 896 7552

I am now 76 years old, had open heart surgery and alien is sitting unused u der a tarp in Cape coral Florida. She is too much fun to go unused

**Christofer Olsson Kedborn**

February 24, 2019

It looks like a amazing trimaran! If I have lived in Florida I would have bought her right away. Would love to see her sailing.

Chris from Sweden

**Colin Watts**

August 19, 2019

Hi Michael. A nice design and beautifully made. Pity I am so far away. I teach in a New Zealand college with 16-18 year old students in the workshop and Technology. Am currently looking for plans to build two outriggers similar lines to your but a max of 16ft poss 14ft.

Would you be willing to sell just the outrigger plans/design? Please contact me

**Alex Caslow**

September 27, 2019

Hi Michael,

What a cool boat! That looks like a ton of fun to sail! If I had the money, I'd be in my truck headed your way!

**Todd**

October 30, 2022

Just read the article, is she still for sale?



# Haines-Hunter Tramp Trailer-Tri for Sale

April 24, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Haines Hunter Trailer Tramp Trimaran, Ian Farrier

## Comments

**Michael Murphy**

November 28, 2017

Randy,

I know that this boat was sold last year..is there any way you could get me the new owners name or pass my contact information to them? I am looking for this model for a client of my to purchase. Thanks

Mike

**Ricky**

December 26, 2017

Does anyone know of a Hunter Tramp / Pyramid Eagle trimaran for sale near Florida? Please let me know! Thanks!

**Ed**

January 15, 2018

one just posted sailboatlistings.com

**Jim Jaffer**

May 24, 2018

I purchased this boat from Randy and due to changing circumstances I am now selling it. I have added a new Tohatsu 6 HP outboard.

I am asking \$9500.

**Roger Deslongchamps**

June 10, 2018

IT IS ALWAYS FOR SALE ,I AM RELLY INTERESTING FOR THIS BOATHOUSE NOW I HAVÉ A CORSAIR F27 FOR SALE AND AS SOON IT IS SOLD I WILL CALL YOU FOR A RDV.

THANK ROGER

**David Benn**

July 7, 2018

If it is still for sale I would by interested.

**Andre Kap**

August 19, 2018

Hi to the previous owners of Hunter Haines Tramp/Eagle trimaran.

Did you have any problems with the scuppers/water drains for the cockpit?

Here is what I found with my boat (1984 vintage): the 3 inspection hatches on the cockpit floor leak. After heavy rain, the main hull filled with water because the scuppers are located above the floor level , not below as is should be and as the main hull slowly flooded, she sunk to the level of scuppers, which filled the rest of the boat to the level of submerged scuppers. Thank God for the amas to keep the boat afloat.

Similar experience anybody? Resolution?

Yes, I will be installing new inspection hatches for sure.

Thanks

Andre

**roysail**

September 1, 2018

Here it is September of 2018, and I find myself looking for a Tramp or Super tramp! I'm a very experienced shipwright and sailor, on the West coast (Washington), will consider project boats or those in need of repair. Perhaps your neighbor has one with blackberries taking it over!! Please reply via this blog, will get email updates.

**Richard Biron**

September 11, 2018

Hi, i am from Quebec Canada,

I am also looking for a Tramp Eagle, super tramp, pyramid eagle.

If anyone has one for sale not too far from Quebec, please email me.

Thanks all

**Richard Biron**

September 23, 2018

Found one ???

**Doug Walsh**

November 6, 2018

We owned a Tramp and kept it here in Marina del Rey, California, but gave it up for an 1935 35' foot cutter. Always regretted letting the Tramp go and would love to find another one. If any knows or hears of one for sale anywhere in the U.S., please let me know. It will be greatly appreciated.

**Dave Morse**

November 21, 2018

Doug,

I have one in Alamitos Bay, CA. I would let the boat and trailer go for 8200. [twoharborsdave@gmail.com](mailto:twoharborsdave@gmail.com)

**Mario.**

January 17, 2019

Hi.I have one eagle tramp 1983 have been sailing the sea of cortes for about 4 years. .La paz Mexico. Are there some body to know where Can I found the original ama's. Net .(sorry for my bad English)

**Gerry**

July 16, 2019

Jim,

I know its been a year now but did you find a buyer?

**james carlton**

February 15, 2020

looking for a tramp if anyone has a lead please send email [jamesemmett1959@gmail.com](mailto:jamesemmett1959@gmail.com) son has moved out and now wife and i regret ever selling ours 20 years ago retired and ready to sail again thanks Jim

**Andre Kapuscinski**

February 15, 2020

I have a 1984 Hunter Haines trimaran for sale with trailer. The boat is located near Toronto, Canada.

My email is [andrekap88@gmail.com](mailto:andrekap88@gmail.com)

May text too 416-707-9353

**Dee Osinski**

May 15, 2020

Can anyone answer this question regarding the Tramp mast. The mast has a weld above the junction box . Is this original or an indication of a break at that point?

Thank you!

**Andre Kapuscinski**

August 8, 2021

Hi , I have a 1984 Hunter Haines Trimaran on an galvanized trailer. I sold my cottage, no place to keep the boat. Available for sale Toronto,Ontario...can deliver.

Email me or text

andrekap88 AT gmail DOT com

416-707-NineThreeFiveThree

# Voltair Trimaran for Sale

April 24, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: voltair trimaran

No Comments

# Tiny Peek at a Modified Piver Nugget Trimaran

April 25, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Piver Nugget

No Comments

# Ever Heard of a ConverterYacht Trimaran?

April 26, 2016

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: Converter Yachts, converteryacht trimaran

## Comments

ian

April 26, 2016

I recall seeing one for sale a year or so back on either the AU or NZ version of the Gumtree website, but there was very little info about it and tiny photos. I remember that brand name because it wasn't clear if that was the manufacturer name or a typo, since it looks like a converted cat made into a tri.

So I never researched it further until now: I guess it wasn't a typo but the links are all dead so I'm not sure what the current status is-

*Converter Yachts have designed center hulls and sliding beam systems for trimarans that are intended to use the hulls and rigs of "off-the-beach" catamarans. This is a very cost effective way to acquire a modern folding, trailerable trimaran.*

[http://maven.allseeing-i.com/Designers/Converter\\_Yachts](http://maven.allseeing-i.com/Designers/Converter_Yachts)

also this news item from 2005 (via google translate)-

*Converter Yachts Trimarans will soon be imported into Europe by the company Multisailing International, based in Lorient.*

*These coastal sailing trimarans of 17 and 21 feet have the particular d'utiliser floats and rigging of a sports catamaran (16/18 feet to 21 feet 12/14 to 17) to which a shell grafted of a system equipped with central arm adaptable to different models of catamarans market. Jumboisation This system allows a family of 4 to have two boats for the price of a, the transformation is reversible.*

*These two models of boats have been specially designed to be easily collapsible to move quickly and effortlessly from the trailer to the water, and vice versa. They both offer great free cockpit, listening watch bar being placed on an arch in the back of the boat, and can also be equipped of a tent that significantly increases the living space at anchor or beaching. Thus equipped, the trimarans Yacht Converter offer a new opportunity to explore the coast cheaply.*

*Three levels of service will be offered for each of the models at the Paris Boat Show 2005:*

- 1) Level 1: supply of the central hull, arms, and the fastening system adapted. This level is aimed at owners of catamarans eager d'élargir their field of navigation.*
- 2) Level 2: supply of the central hull, arms, the fastening system, and two specific floats.*
- 3) Level 3: supply, in addition to Level 2, a rig and of a full wing.*

*Jean-Marc Le GOUEFF is currently in China, to ensure the shipment of the first copies..."*

<http://www.voilesnews.fr/layout/set/print/Archive-des-news-depuis-1998/Chantier-nautique-motonautique-architecte/Multisailing/24359-Multisailing-Une-nouvelle-famille-de-trimarans-cotiers-sur-le-marche-europeen>

I'm guessing that the "wing" and "arch" described are something like a radar/antenna arch, that is often integral to the mainsheet traveler layout on sailboats that have them. Since they offered the boat on multiple finish levels my guess is that you were on your own for the most part as far as running rigging goes if you had a DIY version, and the wing and rig offered on the top of the line boat were likely integrated.

Generally speaking the biggest issue for a mainsheet/ traveler geometry on a tri with soft sails is being able to sheet in hard/flat enough to prevent stalling as the apparent wind moves forward. Theoretically a very fast tri's sails will be sheeted in as if it were going to weather no matter what the relationship of the true wind is to the boat's course, and even slower tris going to weather can outsail their soft sails pretty quickly if they aren't purpose built for fast sailing with non stretch fabrics/films and full battens and other advanced trim controls.

In my experience the optimal focus of a tri mainsheet's mechanical advantages and adjustability will be with the boom more or less in the centered-to-beam reaching positions a good deal of the time, as opposed to something designed to also help hold the boom down off the wind, like mainsheets with a circular traveler track you'd see in racing monohulls.

Racing cats and most other fast multi's use some kind of multi-sheave block system to crank the boom down and maintain a flatter sail shape longer but with the boom more centered, and so you really need the traveler end of the mainsheet to be able to pull from windward of the CL to get maximum in-sheeting range.

For a simple but effective system that avoids bridles and tracks and cars and adjusting lines I really liked the Cross 24's mainsheet setup-

<http://smalltrimarans.com/blog/wp-content/uploads/2011/07/cross-24-trimaran-keel-2.jpg>

-it naturally pulls more downward as the boom moves to center and the perfect balance point between inward and downward forces is just about where the sails were at their peak performance...extreme hard sheeting to pinch up to weather eventually just pulls down but at that point you are losing speed anyway and falling off a bit for the boost is the better option.

In that pic the port side block has a bale on top where the fixed end of the sheet is attached...then the line runs to the aft boom block, to the starboard deck block, up through the forward boom block, back down to the sheave portion of port side deck block and then to a cam cleat. It develops adequate mechanical advantage without the need for gobs of extra line that never gets used except when running, which can be an issue with big multi-sheave arrangements set far out on the end of a boom.

The nice thing about it was also that unlike a typical shallow bridge it never got in the way of the tiller and as you can see in the photo the V-shaped part made a good place to stash the tiller out of the way when not in use and for heaving to.

It would also be easy to rig using the existing deck hardware and you could use temporary strap fastenings for the boom blocks until you got the best geometry.

**ian**

April 26, 2016

Just found this current ad for the larger version, with pics showing the rear arch and how it is the mounting point for what appears to be a standard Hobie mainsheet block arrangement-

<http://yachthub.com/list/yachts-for-sale/used/sailing-trimaran/converter-tri-c21-new/11424>

**ian**

April 26, 2016

It appears that the "Predator" trimarans are the same boat(s)-

<http://www.predatortri.com/>

video of a 17 footer with Nacra donor amas-

<https://www.youtube.com/watch?v=2Mgd-Z6VmDs>

**Small Tri Guy**

April 26, 2016

Ian,  
Kudos to you for making the connection between this boat and the Predator tri!!! I totally forgot about the Predator. Awesome info you've posted here my friend.

**Stefano**

April 27, 2016

Nice boat and for sure, stainless concept: building a centre hull to make use of donor cat parts. But this one pushes the envelope one step further: it is adaptable in principle to many different hulls. From the pics in the site, I think the 17 ft fits the bill better than the other which seems to be priced highly enough to make it unattractive to potential buyers. I have been in the Paris boat fair (second largest in Europe) 3 times, saw many tris, but never these ones. It must mean something.

Another consideration is that even successful tris seem to have shut down operations. It is a niche market and is easily saturated, especially when sturdily built boats hit the pre-owned market at half the original price. I'm thinking here of the virus boats tris. Very well built, trailerable and functional, and yet I think they ceased operation.

**ian**

April 28, 2016

In advertising copy for the original offering they were also targeting people who already owned suitable catamarans and would (hopefully) want to expand to having two boat possibilities available and switch back and forth, which seems like an even smaller niche market- a lot of people choose a cat or tri for reasons that exclude the other type altogether, and most production beach cats I've seen and dealt with weren't usually designed with easy de-mounting and re-assembly of the amas and crossbeams in mind.

To realistically adapt a beach cat for this dual use might make going back to the original arrangement pretty difficult without even more adaptations to the "donor" boat, that may have pop riveted and glued connections and similar concessions to factory building...and to weight savings. Your cat would likely end up heavier, you might invite leak issues, void warranties, etc.

So I think you'd have an easier time selling a complete tri that can convert to a cat than you'd have convincing a cat owner that he needs a cat and a trimaran, especially when he probably looked at tris too at some point but chose a cat early on.

One exception would be current cat owners who want a more stable and easier to manage boat that can accommodate more people, who might save a lot over purchasing a complete tri...but if it's a nice fast modern cat in good shape, rather than cannibalize it they might do better to sell it and add that to the center hull money and buy a complete tri. Those kinds of cats are not that inexpensive much of the time if they aren't pretty beat or missing major parts, and the market can get very hot.

The flip side is that an older donor boat can save a great deal but at some point you can't really justify the expense of a brand new main hull and old amas if it means obsolete designs and poor performance and tired materials and lots of labor to make the conversion, or having to buy all new sails in a year, etc.

Both companies associated with these designs offer a complete boat with custom purpose built amas and rig but I don't see any specs or built examples of those upgrades. It would be interesting to know if these boats were designed to one specific donor boat, or are the "custom" amas offered in the top of the line version part an original complete design and all the other donor hulls are adaptations, or...?

The Predator site does have a nice list of donor boats and their dimensions including rigs that is a great reference for anyone considering this kind of conversion...but they don't seem to recommend any one donor boat as being ideal and a number of them overlap between the two sizes-

<http://www.predatortri.com/Catamarans.html>

I can't help but think that donor amas ranging from 3.6 m to 5.51 m in length might create some similarly large differences in performance and handling on the 17' model... the larger boat donor ama length range is also wide, or at least a wider range of main hull to ama length ratios than you'd imagine a designer would stake out if he were to design amas from scratch for that size of center hull.

Bottom line is that some combinations will probably be awesome for some things and not so much for others, which might work out well for the owners who have individual priorities being met but could be a headache when trying to sell the concept to a broader market seeing all kinds of examples using vastly different donor amas

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

and rigs that don't all work equally well for everything.

A lot of OEMs want nothing to do with conversion work or DIY/custom precisely because their customer's failures come back to haunt them and they get blamed even when the customer ignored their cautionary advice...if they are lucky they just take a hit to their reputation but if not there can be massive liability exposure involved too.

**Tony mundich**

November 7, 2016

Hi slava, my name is Tony and I am from Victoria in Australia and have also recently acquired a Predator Trimaran. Just wondering if you had any joy with rigging information, especially alternate traveller arrangements. I purchased mine in Queensland. Any information you may have acquired would be appreciated.

Cheers

Tony

# A Grande Small Tri Project

May 5, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: grande trimaran, Jim Michalak, kayak outriggers

No Comments



# Searunner 25 Trimaran Restoration in Minnesota

May 5, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown, Searunner 25 trimaran

## Comments

### **Stefano**

May 10, 2016

Looks like an excellent grab. Even if at 10 thousand dollars, you could not buy the material to build it, not to mention the trailer.

I wish there were a few for sale around here, I would jump at the occasion.

Have a nice time with restoration and future use.

### **Neil Kahn**

October 22, 2016

Hello John

She looks great . I also restored a 25 and use it for tours in Costa Rica.

Please write me at kayakjaco AT gmail.com

I am getting ready to haul her in a few days. Please send your phone number in the email if you are so inclined so we can chat.

### **John**

October 30, 2016

Thanks for the comments everyone. My email is eber0206 At gmail DOT com if you wish to contact me directly.

### **steven**

November 17, 2016

Hi,

I had a searunner 25 for a few years and did a few mods to it. First of all seemed like the ruder that came with mine was inadequate for the boat, so I changed it. I made a case for the rudder to slide straight up and down and used a daggerboard from a 25 ft cat that I had for the new rudder. I also got rid of the quadrant and changed over to Teleflex, which worked great.

### **Small Tri Guy**

November 17, 2016

Thanks for sharing those details with us Steven.

### **John Ebert**

November 29, 2016

Mine uses teleflex, but it needs a new rotary housing unit on the interior side due to a cracked cable union. That problem appears to be an engineering flaw in the non-metallic units, where the threaded barb the cable threads to cracked one side entirely off, leaving 1/2 a thread barb to connect to! I managed to regain function, but it is bad for a long term usage.

# Searunner 25 Trimaran – Deep Restoration

May 10, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Searunner 25 trimaran

## Comments

**Daniel Hill**

November 14, 2016

My restoration feels deeper:

<https://www.facebook.com/Peregrine-Laughing-Gravy-Searunner-25-230292897073438/>

**Small Tri Guy**

November 15, 2016

Hi Daniel,

Great work there my friend! I'd love to share those pics (that you have on Facebook) here on smalltrimarans also. Would you send a few of them to me? I'd also like to ask you a few questions about your boat. Please get in touch with me via the email address on my contact page.

# Heart of Gold Trimaran

May 12, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: heart of gold trimaran

## Comments

### Stefano

May 13, 2016

Brilliant story. I just wonder what the maximum speed was with the Tiki 21 catamaran configuration, and in what conditions the trimaran 14 kn speed was achieved.

### Small Tri Guy

May 13, 2016

Hi Stefano,

After I posted about Berthold's boat last night he emailed me and said he should have mentioned that hitting 14 knots isn't a regular thing with this boat ... he achieved that surfing waves downwind. He didn't intend to convey any overstatements regarding the boat's performance.

### ian

May 14, 2016

This is one of the best re-purposed trimaran builds I've seen as far as the hulls being well matched and in proportion to each other and everything looking like it was designed and built as one boat.

The sheer lines in particular blend beautifully and even the parts that aren't perfectly matched like the stem profiles and sternpost rake add interest and help balance the other- the reversed ama transoms don't match the main hull stern but echo the main hull stem angle, and the curved Hobie bows are based on canoes that use the same shape for the stern, so they work perfectly with the Wharram double-ender hull concept. You could even graft a canoe stern onto the amas with some foam and fiberglass if the angle bothered you.

The lashed connections and what appear to be bent sections of mast extrusion (?) on the outboard ends of the crossarms are a perfect blend of old and new methods and materials, that also match the traditional hull forms...there's nothing about it that couldn't have been built back when the Hobie 16 was introduced in 1969 and if you built wooden amas and used wooden spars it could have been built many decades before that, if only someone had thought of it.

It has all the charm and historical details of a boat from the turn of the 20th century or before including deadeye and lanyard shroud/stay tensioning, overall it reminds me a great deal of the 26' US Navy motor whaleboats that are cheap and plentiful as surplus and can make a very nice pocket cruiser that appears to be from a more distant era than it really is, and appears to have been built that way from day one-

<http://boat-links.com/PT/PT2004/Fellowship-1.jpg>

It's really a brilliant job and I'd especially like to know about the various lashed connections.

The wooden crossarm parts look to be at least partially lashed together and the whole assembly also appears to be lashed to the main hull- I'm very curious what other fastenings or adhesives are involved in holding it all together and how much it all moves in operation, how much of that is intentional and any other info that might be worth knowing about the materials used and how much maintenance is involved, etc...

### Ryan Galloway

May 14, 2016

This is easily one of my favorite combo-Trimarans. The Wharram Tiki 21 hull with the modified cockpit is impressive, and just looks right (to my eyes). Cheers!

### ian

May 16, 2016

I must have missed the part about the Hobie amas being left with a stub of the original curved cat crossbeams for that outboard connection...it *is* the same kind of mast extrusion that's been bent, with the groove used to attach the trampoline. I love how the forward beam and extrusion connection fits the vintage outrigger vibe so well and fits in with the traditional boats on the beach; I was thrown off by the rear view showing the groove and it almost looked like bamboo at first glance.

Making use of the existing curves of the cat frame this way just makes the final product all that much cooler in my estimation, and even more impressive for getting the various unrelated parts lined up so beautifully.

It's worth noting from the revised vertical ama connector tube angles that the amas are splayed out at the bottom far more than the stock Hobie configuration...making them press down straighter into the water under heeling loads than in the stock cat orientation that wants to ride up onto the flat leeward side like a surfboard as you fly the other hull.

This may be an important factor in using these hulls in a tri and getting the best results as outriggers pivoting around a larger main hull. Tremolino kept them just like the stock cat with those four tubes dead plumb and so have all the other H16 tri adaptations I've ever seen. A lot of those boats ditched those amas and the H16 donor ama has gotten a bad rap.

Seeing this canted geometry it looks much better for a tri ama application; it presents the more voluminous inner half of the asymmetrical hull earlier and should make better/faster use of the available buoyancy to resist heeling, something a beach cat ama isn't really optimized to do in its stock orientation.

I can also see it tracking better and probably being less slappy and wet.

### travis haggard

May 17, 2016

It looks great! It a very well thought out design. I love the traditional look. It looks like a boat Gark Dierking would have designed. I'm sure he would give it a thumbs up! ;-)

### **Berthold**

May 18, 2016

Wow, I didn't expect so much approval!

After I had given up on the idea of bent crossbeams (as in the Tremolino) I started lashing everything loosely together in various ways, eventually swapping the ends of the Hobie crossbeam halves (fwd to aft) which allowed me to place the amas where I wanted them! The Tiki hull has quite a bit of buoyancy fwd! The splayed out amas had impressed me on the "Buccaneer" and the effect is exactly as Ian noticed. All connections are lashed with the exception of the raised gunwale which is screwed to the crossbeams and sealed with epoxy putty to keep water from entering through the gaps. The gunwale could easily be removed. The crossbeams are the original ones from the Tiki 21: Philippine Cedar ("Kalanta) – flexible and strong. In waves and gusts the shrouds become slightly slack on lee due to the flexibility of the crossbeams. All in all the whole thing is quite stiff. No problems so far but of course there is probably a point where something will snap. I think the weakest part is the rig: My jib is bigger than the Hobie 16 and the whole thing is about 4 times heavier than the cat the rig was designed for... I had lost the mast on the Tiki over the side due to a snapped shroud and this time I supported it very well. It still needs running backstays urgently!

To Stefano: I cannot say if it is faster than the Tiki 21 was. It certainly feels faster, because you sit closer to the sea...

I have to build a skeg again – there is too much weather helm. This can be counterbalanced by moving the rudder blade more fwd but that also slows her down I think.

As for maintenance I keep her on a mooring and take her out twice a month for cleaning the hull. Other than that, there isn't much maintenance needed. When first installed the Dyneema shrouds needed tensioning 5-6 times after they had carried a load before they had stretched out completely. The deadeyes are not only cool looking but have many advantages (cost = 0) to turnbuckles, which are very limited in range. We can lay the mast in 5 minutes.

I only wish she could shed 80 kilos or so.

The lashings are done with thick nylon fishing line like on all the Philippine outriggers. To protect the crossbeams I laminated some roving in these places so the nylon line cannot cut into the wood.

The Philippine fishermen are very interested in the boat and there is always some boat talk. That never happens when you sail a "big" 35 foot yacht. Once we were carefully approaching an island beach with a coral reef in the dark with flashlights and two small outriggers came paddling to show us a channel in!

# 4.5 M Double Outrigger Sailing Canoe

May 18, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: double outrigger sailing canoe

## Comments

**Thomas Henry**

May 19, 2016

Very nice indeed. And pretty too.

Lots of great design ideas you've got there – liked what you did with the ama panel layout, tortured at the bows merging into the chined body aft.

You made it look so easy, which I'm pretty sure is an illusion ;)

Good on ya for showing us something new.

Cheers,

**Andrey Titirenko**

May 20, 2016

Thanks :)

it's really a lot easier than doing of separate plank

less seams, no problems with symmetry shell

**Stefano**

May 21, 2016

I love this production of Andrej, as I actually appreciate much of the small trimaran russian production. I recognize here a true ingenuity and very solid boatbuilding. NO frills, functional, with an eye for the beauty that solidity conveys.

One last positive comment: I really like the fact they fuss very little with epoxy sheathing over wood. Wood saturation and just some glass tape where really needed. And that's all... less fuss, less weight, less money, less work.

**Wade Tarzia**

May 23, 2016

Nice boat. Maybe put a port in the transom of one of the amas so you could easily flood it to right the boat from a 180 degree capsize?

**Andrey**

June 27, 2016

I thought about it. may be.

but it is not necessary. sail area is very small and there is only chances to turn over into a very fresh breeze.

when the wind 5m / s and 4,7m2 sail only half float in water.

I updated the photo album and video captured with the fresh wind.

maximum speed of 15km / h.

**Small Tri Guy**

June 27, 2016

Wow, you sure did update that photo album Andrey! Lots and lots of great photos ... and I like those short videos too. I am sure some guys are going to get some great ideas from those pictures of yours.

# Two in One Folding Trimaran – Concept Design

May 18, 2016

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: two in one concept trimaran

## Comments

**Craig Maddox**

September 3, 2016

Please send me more details about your two in one folding trimaran, plan cost, expect time to complete, materials list etc so I can consider taking on this project.

Regards

Craig

**Stefano**

November 11, 2018

For Craig Maddox. I gave three attempts at asking professional designers to put onto boat cad my trimaran. I came up with 800 euros expenses and odd drawings that were far apart from what I had asked. This said, I am building a model and then my demountable trimaran (18 ft + add-on scoop in day sailing configuration; 26 ft with centre cockpit and 3 berths + chemical toilet and small galley enclosed, 7 ft cockpit with two benches that can sleep 2 more under a canvas on boom and sit 6 for sailing or dining. In the second configuration, the tri will be a ketch with a rotating mast forward (from a 16-18 ft cat) and an unstayed rotating mast set in a tube mast partner aft. Total expected time for construction: 400 hours for the daysailer + 150 more for the add-on aft pod, based on past 5 kayak building experience and a small tri. I spent 2400 USD purchasing an used 18 ft beach cat with 2 masts, amas, rudders, spade leeboards + all deck hardware and 2 small metal winches and 4 sails including a 18 ft raid gennaker + a 7 hp 2 stroke extra long shaft high thrust motor. I expect to put around 2500-3000 more to complete, all included ( up to paint etc). I'm keeping an accurate record of all and the approach is for a fast no mold construction in plywood and commercial grade epoxy. I have gathered ideas over 10 years and 6 boats built, but I am a biologist by trade, not an architect or engineer. NOT willing to engage myself in selling plans, but I can share my experience.

# CLC Sport Tandem with Double Outriggers (New Update)

May 19, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: CLC Sport Tandem with outriggers, sailing kayak, Trimaran Kayak

## Comments

**Stefano**

May 22, 2016

Hi.. the boat seems well apt for sailing. However you need to adapt a few things.

The aft shrouds are placed way too aft. You can tell by loosening the mainsail with an aft wind: the battens flex in "s" shape around the aft shroud. The way to do it, is to have a "V" shaped fixed loop of dyneema going from one aka attachment to the other ( bow-rear) and an equal one on the other side, and then have the shrouds attach to a dead eye in the loop. The main sail, completely opened should be allowed to open almost 70 ° before the battens touch the shrouds. Beware also that by tightening the shrouds, you are transferring compression loads to the mast step. Is it solid enough so not to put a hole through it? A fairly stiff unstayed mast is probably a better option. If you cannot increase the section of the mast, you can still stiffen it by inserting coaxial tubing inside (epoxy glued) to at least half way inside. Best if 2/3. A few pounds more weight but much lesser loads on the structure. If you position the leeboard very close to the mast (aft) you will need no jib to tack nor jibe, no jib stay, and no need for shrouds. If the jib is small enough, it can go without shrouds in gentle breezes. When the wind builds up, just take it down.

**Algie Bennett**

January 7, 2017

Hi,

The plan is to stiffen the mast further along the lines you suggest. The shrouds have been in a variety of positions as I get the best position for the mast, leeboard and crossbeams finalized.

I have used the inverted v between front and rear crossbeams and that has been the case since just after the video was shot.

I tend to thrash this quite hard and need shrouds of some form for the jib to be effective.

I have beefed up the deck and mast foot area considerably and not had any problems so far, although I admit I was rather scared the first few times we went in heavy conditions.

# Nicky Cruz 25 Restored and Sailing

May 22, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Nicky Cruz 25 trimaran

## Comments

**J.P. Rossa**

May 24, 2016

Comment from a multi-hull builder: This is one of the best looking small tri's I have ever come across. The lines are just stunning.



# Seaclipper 13 Now Sailing in Canada

May 31, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, Seaclipper 13 Trimaran

## Comments

**Steve**

June 17, 2016

Hi Don, great looking tri, nice job. Can I ask how she does with 2 crew? I'd like to build one for my wife and I - combined weight about 300lbs. Fair winds, Steve

**Ern Bieman**

August 14, 2019

In response to Steve's Question about crew weight: I bought Don's Seaclipper 13 for the kids - what a nicely built pretty little boat! As with most older tri designs, the outriggers are a little low in volume, and can dig in during larger gusts, but on a small lake, that is rarely an issue. Other than that, we love the boat: easy to rig, easy to launch, easy to sail. I find 300 lbs to be right on the edge. The displacement between the hull and the cockpit floor will handle just about that much crew weight before you get some water coming up through the daggerboard well into the cockpit - at which point there is still reserve buoyancy. The boat is really designed for one - so if you intend to sail with that much weight on a regular basis, I would go for a larger design.

# DWX Epoxy for Boatbuilding

June 3, 2016

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Duckworks Boat Builders Supply, DWX Epoxy

## Comments

### Jack dirkes

June 4, 2016

I live in sw florida and I am experimenting with this product now. I have used it to cover my wooden mail box and flag pole base,solar test. I have used it on oars and gun'ls and a small bit of rider glass. The mail box and flag pole were covered with another brand of epoxy and unvarnished before I moved here in 2013. That Finnish lasted ten years in the Pacific be. Here it did not last two years. The second year I painted the flag pole and unvarnished the mail box – failed again. This spring removed the fiber glass from the mail box and sanded to bare wood. I then put three coats of dwx on it. Unlike you I have used epoxy extensively do not find it difficult. I will say though of the epoxy brands that I have use this is by far the most easy and best performing epoxy of the bunch. It will fill fiber glass better than any of them. When fiber glassed the tips of the oars air pockets or bubbles formed under the glass where there are compound curves. After the first coat was cured the second coat filled them. With any other epic I would have had to sand them out and fill them with thickens epoxy.

In Florida the long pot life is a real plus. I found the dwx to be more viscous,at least more viscous longer,than what I was used to. Soft woods and end grain soak it up like a sponge. The viscosity makes it necessary to be careful on vertical surfaces to avoid sags by using thin coats and or tipping with a brush.

Using this product I quickly adjusted my practices to compensate for any and all differences from what I was used to. I can hardly wait to use dwx on a larger project. There is no rush no fuss and no surface bubbles to leave pin holes in the Finnish. And so far no sun damage on the mail box or flag pole base.

P.s. you can forward this to Chuck.

### Small Tri Guy

June 4, 2016

Terrific feedback Jack! Exactly the sort of thing we need here ... many thanks for taking time to share.

Anyone else?

### Larry S

June 6, 2016

Great to hear about this product. As this can be a top coat, do we know if this can be wet sanded and buffed if needed?

### Stefano

June 10, 2016

I would just point out that 2 hours is not such a long pot life. With slow hardener, the Camattini brand resin I use in Italy works quite fine, as long as you do NOT use pots.

I use shallow disposable and thin aluminum take away food portion containers (i ignore what the english name is, hope you get the idea) they disperse effectively the heat.

By the way... curing times for all resins and paints are given for "standard" conditions in chemistry, and these are: 20 °C and 1 atmosphere. If you operate in very different conditions, you will get very different reactions. Expect 50% shorter time if you operate @25°C or more.

I avoid also using it in the sun or at the hottest time of the day. Rather, I prefer afternoons in summer days.

Last but not least the term "viscosity" is a measure of the internal friction of a liquid. When the liquid is very fluid it has LOW viscosity. When it's like honey or thicker, it has HIGH viscosity. Not the other way around.

### Small Tri Guy

June 10, 2016

Great points Stefano.

### ian

June 11, 2016

This is very intriguing...looking into it I see that the resin is an advance over typical early era epoxies-

"...These are highly viscous to solid resins with typical mean epoxide functionality of around 2 to 6. The high epoxide functionality of these resins forms a highly crosslinked polymer network displaying high temperature and chemical resistance, but low flexibility."

[https://en.wikipedia.org/wiki/Epoxy#Novolac\\_epoxy\\_resin](https://en.wikipedia.org/wiki/Epoxy#Novolac_epoxy_resin)

"EPON™ Epoxy Novolac Resins are specifically designed to provide increased levels of thermal stability and chemical resistance. This is accomplished by increasing the epoxy functionality as a result of switching from Bisphenol A to Novolac backbones. A variety of backbones is available with functionalities in excess of 2, up to 5. This allows the formulation of systems with the high cross-link densities needed for higher thermal (Tg) and chemical resistance properties."

<http://www.hexion.com/products/main.aspx?id=1150>

The thermal resistance may not seem important for a boating application but generally speaking most cured epoxies begin to soften faster as they approach the temperature they were originally cured at, which is one reason why high stress epoxy composite parts are often autoclaved.

Regular "room temp" epoxies can cure at 120-150° or so, and on a 90° day you're well on your way to losing a fair amount of rigidity- something like wooden mast can get very hot and rubbery on a warm day.

This stuff appears to cure at the same temps but becomes more rigid to begin with without having to elevate the original cure temperature, so should be well suited to applications where typical epoxy flex might be a problem, and in areas where heat, chemicals and/or water are present...this would probably be great for fabricating and coating framing and surfaces in a bilge or engine room or icebox or fuel/ballast tank and FWIW I see that a lot of Novolac resin is going into things like epoxy floor paints for high traffic/heat/chemical exposure areas like commercial garages and factory floors.

The viscosity thing is one of conditioning and many penetrating epoxies designed for cold molding of wood are thinned out in the formulation for maximum penetration, with the exothermic reaction making them even less viscous during that stage between mixing and beginning to gel. This can cause runout problems for some joinery applications unless you use a filler to thicken it up and fill gaps. Another trick you can use with very thin epoxies that also extends pot life is to refrigerate the material before mixing; just keep it above the minimum recommended temp.

This stuff appears possibly better suited for that kind of adhesive joinery application straight out of the can but for a WEST System- like cold molding project it might require slight thinning to get good penetration, at least with certain woods. It's worth noting that as manufactured it is 100% solids and VOC free, so it hasn't been modified to thin it out.

Stefano is right on about "pot life" and how it is negatively affected by concentrating the mixed material...

it's also something of a misplaced standard because many jobs don't eat up so much time in the coating and assembling of parts as they do in the subsequent alignment and clamping and double/triple checking and wiping off the excess before it's too late, that all happens after the pot is empty- or so you hope.

So the "cure to solid state" or "working time" number of any epoxy is a often better measure of how much time you are really working with as it relates to complicated glue-ups and/or close tolerances that require lots of adjustments before it all sets up. Slower cure-to-solid time is also beneficial for penetration in wood and similar materials but can just slow you down for a lot of smaller jobs that can be assembled quickly or if you are using it on non-absorbent materials or for fairing and similar non-structural work.

Two hours pot life is fairly long- WEST System extra slow 209 cites 40-50 min.@ 22°C, which is twice the pot life of their regular 206 slow hardener...but the 209 takes 20-24 hours just to become solid, up to nine days for a full strength cure (more than double the 206 slow hardener) and the minimum ambient temp they recommend using it at is 21°C.

That's great if it's very hot where you are at and/or you want it to soak into wood pores forever or need fifteen hours to tweak your assembly into shape before it solidifies but in most cases once the stuff is out of the pot and into the joints or fabric or whatever and you've wiped off any drips, you want it cured ASAP.

So it seems that this stuff might perform better than typical epoxies in the rigidity department using non-accelerated curing temps, with very generous pot life and reasonable working time...all without waiting most of a full day for it just to gel up after you get it together, and another week or more for it to get to full strength.

That said, in the promo copy they seem to be using the terms "pot life" and "working time" (aka "cure to solid") interchangeably...but most manufacturers treat them as two separate figures-

(MAS Slow Hardener)

30 Minute pot life

4 Hour working time at 70° F

(System 3 Slow Hardener)

Pot Life at 77 Degrees F 70 Minutes

Set Time at 77 Degrees F 9 Hours

the DWX data sheet doesn't seem to list a "cure to solid" time but states "DWX should be cured at a minimum of 3hrs at 77°F before contact."

I may be wrong but if it solidifies to where it can be handled after 3 hours then that two hour "pot life" figure might be more of an overall working time before it sets, and you may have far less time than that to actually get the mixed material out of the pot.

Anyway it looks very promising, thanks for the heads up.

**Stefano**

June 19, 2016

When I read Ian's well informed comments, it's always very refreshing.

I actually meant myself 2 hrs pot life as actually an equivalent of "time before gel".. the cure stage where you can leave your fingerprint, without the stuff sticking to your fingers, but not quite solid really. It is often referred as "green cure stage" ... I always wondered where this expression originated, but it has been widely used in DIY epoxy boatbuilding.

As for the following suggestion, I hope Ian will not mind if I point out that "above", should actually read "below"... if you mean to extend, and not shorten the "pot life" :-)

(...) Another trick you can use with very thin epoxies that also extends pot life is to refrigerate the material before mixing; just keep it above the minimum recommended temp.

**ian**

June 21, 2016

Hi Stefano,

I'm guessing but the "green" terminology is very possibly derived from pottery, where any wet or dry object that hasn't been fired yet (not fully cured) is referred to as being "green", which I would assume was derived from lumber curing terminology.

When greenware is still wet enough to be malleable, it can be tooled and deformed in some cases almost identically to a catalyzed polymer resin that has gelled but isn't completely hard yet, so adapting the terminology to what amounts to polymer sculpture makes sense.

It's also worth noting that potters and boat builders are both primarily engaged in the creation of vessels.

Just to clarify the comments about cooling down epoxies, the suggestion was more about increasing the viscosity without adding fillers that might negatively affect penetration, for things like applying it to vertical wood surfaces where you want it to stay there and soak...

the cooled material will go back to the thinner state at some point in the cure as the reaction heats things up so it's not as effective as using filler to prevent runout in larger gaps, but the point is that the heat induced re-thinning happens *after* everything is out of the pot and on the work and starting to cure, and it's not trying to sag and run off from the moment you begin applying it like very thin epoxy can do in those situations. You might need to brush/roll a bit to keep it all in place till it gels, but it's infinitely less hectic when working with very thin materials.

The re-thinning can be used to an advantage as well when repairing large gaps in wood, rot pockets, etc. on similar surfaces like vertical and even overhead surfaces where runout is inevitable using the thin material needed to fill every pore and void.

Rather than using a thickened putty that won't penetrate or flow very well you can mix up a penetrating epoxy, cool it to a very thick consistency like cold honey and then use a knife or syringe or grout/pastry type bag to trowel and/or pump the gaps full... then you quickly slap a pre-cut bandage of sturdy tape over it to hold it all in.

As it heats up through the cure and thins before gelling, you can then manipulate the patch with your fingers to keep the wet material pressurized.

The part about extending pot life is a secondary benefit, and in most cases using a different hardener is the best way to modify cure rates.

I mentioned the temperature consideration more because a lot of slow hardeners are designed for use in hot climates and specify fairly high minimum recommended temperatures for their use: extra slow WEST 209 says 70°F min while the fast 205 is OK as low as 40°F. I have to think that far higher min. temp is there for a reason, otherwise why not tell customers they can use it at cooler temps for even better penetration?

So my point in mentioning the minimum temp was to caution that mixing and/or applying resin after cooling the material itself well below those temps *could* cause problems and since epoxy isn't cheap and removing a failed batch of any resin is never fun, it's worth considering *if* you are considering this technique- especially if you are using a very slow hardener that may have been formulated for use in very hot climates.

That said it might work just fine or have some other benefit I don't know about; I'm no stickler for the rules if breaking them makes sense. But since a lot of epoxy work is structural and bad chemistry can be mostly hidden I try to err to the side of caution unless I've tested the technique, and I've never mixed or used any epoxy cooled way below the recommended temps.

# First Strike 20 Trimaran Now Sailing

June 9, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Richard Woods, strike 20 trimaran

No Comments

# Jim Brown's SCRIMSHAW Rescue – Part One

June 19, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: Jim Brown, multihulls, Scrimshaw trimaran

## Comments

**Tom Henry**

June 21, 2016

I just love to hear Jim tell stories, just love it.

Great to hear him out there doing it. And reminding all of us that even as we age, if we love sailing, there are avenues for continuing to reap the joys. Thanks for that Jim.

BTW Joe – please think about it when you break a story into parts... please pick a less intense moment. I won't be able to sleep until the next post is made.

Cheers,

**Small Tri Guy**

June 21, 2016

Thanks for the feedback Tom!

Soooo glad you enjoy Jim's tales :-)

# One Small Trimaran in Race to Alaska

June 20, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: r2ak, race to alaska, small trimaran

No Comments

# Grande Small Tri on the Water

June 20, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger kayak, rio grande kayak

No Comments



## Jim Brown's SCRIMSHAW Rescue – Part Two

June 22, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios

Tags: Jim Brown, Searunner trimaran

### Comments

**Tom Henry**

June 24, 2016

Thanks to Jim.

And thanks Joe,

for continuing to create these valuable pieces of history.

Cheers,

**Small Tri Guy**

June 24, 2016

Thank you for the encouraging words Tom! We're so glad you enjoy Jim's audios when they're produced.

**Gary Dierking**

June 25, 2016

Always a joy to hear the words of the master.

**Scott Iverson**

June 27, 2016

Nice bits on the allure and esoterics of sailing, particularly in wooden boats. And a bit of karma perhaps? Maybe Scrimshaw was using Sandy Key to give Jim feedback about the unfortunate sale and neglect.

**Small Tri Guy**

June 27, 2016

Yeah, Jim shared a couple great sailing tips last week. As for the idea of "Karma", I'm happy to let it go the way of India's "caste system."

**Wade Tarzia**

June 29, 2016

So happy to hear about this happy reunion (though it had to be earned).

# Can You Identify This 13-to-15-Foot Trimaran?

June 26, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: trailerable trimaran

## Comments

**Manfred Pech**

June 29, 2016

I think it is a Texas Trimaran 18ft long : [http://images.google.de/imgres?imgurl=http://www.shortypen.com/sailboat-guide-pics/281.jpg&imgrefurl=http://www.shortypen.com/%3Fboat%3D281&h=375&w=500&tbid=wiLAWB9MXzNDBM:&tbnh=90&tbnw=120&docid=1sj8yuuOpQP1hM&client=firb&usg=\\_\\_I2sIRQjzI\\_IPAWvaVDJsYBu8UIk=&sa=X&ved=0ahUKew1r-flks3NAhULrRQKHYYxCRIQ9QEIOTAG](http://images.google.de/imgres?imgurl=http://www.shortypen.com/sailboat-guide-pics/281.jpg&imgrefurl=http://www.shortypen.com/%3Fboat%3D281&h=375&w=500&tbid=wiLAWB9MXzNDBM:&tbnh=90&tbnw=120&docid=1sj8yuuOpQP1hM&client=firb&usg=__I2sIRQjzI_IPAWvaVDJsYBu8UIk=&sa=X&ved=0ahUKew1r-flks3NAhULrRQKHYYxCRIQ9QEIOTAG) .

**Small Tri Guy**

June 29, 2016

Ahhhhh ... great find Manfred!

According to ShortyPen.com (a website published by David "Shorty" Routh) this boat is called a model named "Texas Trimaran" that was in production back in 1968 –

<http://www.shortypen.com/?boat=281&d=-Texas-Trimaran>

How many were made? I wonder.

**ian**

June 29, 2016

From what I can find online, the company was based in Corpus Christi and also built a line of larger tris based on Piver designs-

a Nugget based model-

<https://www.flickr.com/photos/14273927@N03/with/1453667238/>

a 30 footer-

<http://www.sailingtexas.com/stexastrimaran30100.html>

Found an old ad for the 18 footer that lists it as a 1968 model, hull #33, so they made a respectable number of them.

It doesn't look like its a direct copy of any of Piver's early small tris and the main hull looks very much in line with late 50's-early 60's cat hull designs like the Fairey/Prout Shearwater models.

The double ended ama shape is pretty unusual for that era on a multihull though (not really popular until Newick came along), and all of that makes me wonder who designed it and if it was a scratch design or an adaptation of an existing main hull shape, possibly using orphan hull molds.

**Small Tri Guy**

June 29, 2016

Great links and insights Ian. As always, many thanks for sharing them with us here.

**SL**

July 23, 2016

Could also be a triumph take a look here.

<http://www.cruisersforum.com/forums/f48/anyone-ever-sail-a-piver-nugget-trimaran-10409.html>

**Small Tri Guy**

July 24, 2016

Thanks for the Triumph link SL. We've featured the Triumph on the following post ... at first, it was also a "mystery" to me when I posted it ... and then one of our readers finally identified it: <http://smalltrimarans.com/blog/8-foot-mystery-trimaran/>

**Scott William Patton**

April 27, 2022

Hi Small Tri Guy. I have unearthed one of these Texas Trimarans and would hugely appreciate any help your community might be able to provide in re-rigging the boat. Is this still an active forum?

**Small Tri Guy**

April 27, 2022

Hi Scott,

Our comment here is still "active," but it may take awhile for someone to share some rigging info about this boat – especially with it being such an old model. You can probably take some pics and measurements of the boat to a good sailmaker in your area and they will likely be able to help you with rigging suggestions.

A good sailmaker is worth their weight in "bitcoin" (these days ;-)

## Small Trimaran Entries in R2AK 2016

June 26, 2016

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: r2ak, race to alaska, small trimarans race to alaska

No Comments

# F-Boats in the R2AK

July 1, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: r2ak, R2AK sailboat race

## Comments

### **Eugene**

August 20, 2016

that's no \*beach cat\* there Joe! (THE RED ONE/TEAM MADDOG) The M32's are FLAT OUT \*FOILING CATS\* THAT TAKE YOUR BREATH AWAY WHEN YOU SAIL ON THEM. They are just THE BADDEST (A\$\$) MULTI TO COME ALONG IN YEARS IMO/E!! When the 'M32 World Match Racing Tour' comes back to Newport RI in June 2017, you should plan on going up there to see what I mean in person. The M32 class is unlike ANY 'Beach Cat' and is THE FUTURE of Catamaran Sailing! I call it 'THE PEOPLE'S CUP', because the M32's are built and sold to anyone who wants to own one, and as such \*anyone\* can win the World MATCH RACING Championship! It's the \*next\* America's Cup IMO/E. The 'M32 World Match Racing Tour' is EVERYTHING the 'America's Cup' isn't to real everyday working sailors! Eugene over in Middletown NJ

### **Small Tri Guy**

August 20, 2016

Hi Eugene,

I stand corrected then, my friend ... no calling the M32 a beach cat from now on :-)

And thanks for the tip about June 2017! I am already tempted to go.

Joe

# Cool Finn Trimaran Sailing

July 8, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: cool finn trimaran

## Comments

**Travis**

July 23, 2016

That's a good looking conversion. The main hull looks like it bogs down a little to much creating extra drag. It will be interesting to see some videos of it in action. Either way, he sure looks like he is having a lot of fun. In the end isn't that what it's all about, having fun? From that perspective.. Mission accomplished!

# Skin-on-Frame Double Outrigger Sailing Canoe – Perahu Katir

July 13, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Dave Gentry, double outrigger sailing canoe, Perahu Katir sailing canoe, skin on frame sailing canoe

No Comments

# Small Trimarans in Trouble

July 13, 2016

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: small trimaran rescue

## Comments

**ian**

July 13, 2016

There's a picture of the boat from NY after capsizing at this link-

<http://www.poughkeepsiejournal.com/story/news/local/2016/07/11/highland-pair-rescued-river-after-homemade-boat-sank/86936346/>

- not much to go on but it doesn't appear to be some manifestly unsafe/weird design or of an obviously poor build quality... the term "homemade" often erroneously suggests this kind of thing *must* be the root cause of the incident in reports on things like this, especially when made by reporters/editors who don't really even understand the distinctions between "swamping", "capsizing" and "sinking".

It's nice that both incidents are being reported here together precisely because it points out that a factory built boat is not necessarily any less likely to have this kind of problem than one that is "homemade" or is described using nicer sounding terms like "custom" or "hand built" that often mean the same thing...in my personal experience some big brand names may actually be more of a build quality red flag than "homemade".

As for general safety concerns it bears repeating that trimarans as a type have always been plagued over-representations of their inherent safety by builders and designers trying to convert people, probably the worst being the absurd idea that they "cannot capsize". When I see stories like these I always wonder about the sailors skill level and just how much of this kind of thing may have led them to choosing the tri to begin with.

On the flip side of that, I'm almost equally troubled by the marine patrol unit supervisor for the Dutchess County Sheriff's Office stating that "...a tragedy was certainly avoided on the river today..." which is pure speculation and hyperbole that only serves to create fear of a situation that any small open boat sailor needs to experience and learn to respond to correctly \*from direct experience\* to be truly prepared.

Swamping and/or capsizing a small open boat is not a "certain tragedy" at all; little kids do it for fun all the time in dinghies and many sailing instruction programs that use open boats require that you recover from a capsize and swamping in order to pass.

Obviously there are many factors in play, rivers present their own issues with disabled boats and the \*potential\* for tragedy certainly exists...but that potential exists just sitting at the dock, or any time a large body of water is part of the mix, no matter who built your boat or where.

Anyway I bring it up because this kind of hyperbolic overreaction can actually serve to discourage people from familiarizing themselves with appropriate safety procedures, since it explicitly states that "tragedy" is "certain" if your boat ends up like the one in the article- anyone who took that to heart would have to be crazy to deliberately create that condition so they had some personal experience with getting out of it- but that is exactly what they need to do to be fully prepared for this kind of \*potentially\* life threatening circumstance in a small open boat.

Again, when I see stories like this I also wonder just how much of that kind of training they had and how it was affected by that kind of erroneous thinking- in this case the boat is intact and floating after capsize and seems perfectly capable of keeping two people afloat if they climbed up on it or just held on.

Maybe they did climb up on it and weren't recovered directly from the water and it's just incomplete reporting, but they also may have forgotten to do so in a blind panic that could have been avoided through better training...

or maybe they were novices who just assumed that they were done for and didn't even bother to do anything but wait to die, based on hearing all-too-familiar comments from allegedly knowledgeable professionals saying that swamping/capsizing a small boat on a summer day spells "certain tragedy".

**Small Tri Guy**

July 13, 2016

All great points Ian !!!

**ian**

July 13, 2016

Thanks Joe-

It's a subject near and dear to my heart: my one and only experience with accidentally capsizing a multihull was on a borrowed Hobie 14 that a friend and I turned turtle off of Long Beach CA when I was a teenager...we just weren't physically large enough to get it back over once it settled upside down and eventually a Harbor Patrol boat came by and helped us right it.

But- the PFDs we had aboard when we went over drifted off in the commotion and so they wouldn't let us sail back home and insisted on taking us aboard and towing the cat, which would have been OK except that the harbor cops insisted on tying the tow line to the mast base and then gunned the motor with the line slack and promptly dismantled the thing which also tore a couple of chainplates out of the tramp frame along with big chunks of the extrusion still pop riveted to them.

Had we been a little better prepared there's a good chance we could have avoided the whole event by reefing or could have kept the boat from turning turtle by moving faster when it first went over, or at the very least could have spent a safer and less strenuous time waiting for help. Heck, if we'd just secured the life jackets to the boat, we could have sailed home...actually wearing them was of course not an option in our 15 year old brains.

I don't fault the harbor cops for not just letting us go home under our own power when we were technically not in compliance and unsafe with no PFDs, but I do fault them for not knowing what they were doing when they towed us, and not taking the time to rig the tow properly when we suggested not tying to the stick...at least they took us aboard their boat before toppling the mast; around that same time a Coast Guard small boat crew took an out-of-gas Boston Whaler in tow in the Catalina channel and left the people aboard and it flipped over during the tow (at night) and everyone was lost.

That was a real tragedy that was all the worse for not having to happen in the first place if someone in charge was using some common sense, which can be sorely lacking in some of these agencies; I am not trying to cast aspersions or disrespect the fine work that these people do and the risks they take; it's just a fact of life that when they screw up, they can screw up really badly-

*"The highest-ranking member of the Coast Guard crew involved in a collision that killed an 8-year-old boy during the 2008 Parade of Lights in San Diego Bay pleaded guilty on Tuesday to a charge of dereliction of duty.*

*...Last week the driver of the boat, Petty Officer Paul Ramos, was found guilty of dereliction of duty for failing to conduct a risk assessment. During his court-martial, Ramos was found not guilty of involuntary manslaughter, negligent homicide, aggravated assault, and hazarding a vessel.*

*On Dec. 20, 2009, DeWeese was riding in his father's pleasure boat, when the Coast Guard boat Ramos was driving slammed into the vessel killing Anthony and injuring five other people.*

*At the time, Ramos was responding to a report of a boat stuck in mud."*

<http://www.nbcsandiego.com/news/local/Coast-Guard-118857684.html>

-point is that even the most skilled, best trained rescuers (the USCG on whole definitely qualifies) can make mistakes, be they dumb, criminally negligent or otherwise, and the best plan is to try as hard as you can to never, ever need their help, through planning and self sufficiency, while also being realistic about your situation and asking for help before it's too late to avoid a full blown rescue because it's too late to help yourself.

It also occurs to me after further thought that a recovery from turning turtle in a tri or other multihull in a river might be far more difficult but maybe also easier depending on your orientation to the current and the direction you are trying to spin the boat...if you work against the current it's likely impossible but you might even be able to use the current to do most of the work using a well placed anchor and passing the line around the hulls in such a way as to rotate the boat when under tension. Of course you might also tear the rig (or something else) off that way, too, and any time you try to remain stationary against a river current you risk being pulled under, so you need to \*really\* know what you are doing and not be learning as you go.

I'd be interested in anyone reading this has any experience with river recoveries of multis, I certainly don't.

It's also worth repeating that no matter where you are boating an anchor is one piece of safety gear that can be as important as a paddle, maybe more so if there's a strong current taking you away from safety in a river or a receding tide is pulling you out to sea at dusk as the wind dies and you have no motor or lights.

It's understandable that many small boat sailors who aren't planning on ever stopping except at beach or a dock don't carry anchors, but because of the unique potential to be disabled by a capsize and the extra space available on a tri and the fact that it doesn't have to be very big or heavy due to the tri's light weight, there's really no reason not to have one with you.

It's also cheaper than ever to get quality stuff- you can get a 1 kilo Lewmar claw anchor and some cheap line for well under \$25, that can pack in a 12" x 8" X 6" bag and is rated for general anchoring of up to 12' monohull boats and will probably at least slow down boats up to around 18' or so, depending on the bottom.

#### **Small Tri Guy**

July 13, 2016

Again, terrific info Ian. I've had my share of mishaps on the water ... thankfully not life-threatening ... some a little embarrassing. But this summer I've actually thought a lot about accidentally overturning my tri in the Delaware River. What would I do? How would I handle that situation? I am trying to think it through at the moment and have come to the conclusion that, realistically, the odds of recovery on my own are likely less than 50%. And I'd almost surely lose one ama, along with the mast and sail, in the process.

#### **Stefano**

July 20, 2016

"The 14 ft home made trimaran capsized form taking on board a few waves"...

This means to me they had no bottles, buckets, sponges or whatever to put the water back where it pertains, that they could not reef their boat and turn back from where they came or other safe landing spot...

In other words, very poor seamanship. I love the words Howard Chapelle had to say about small boats and mariners skills...Google it up, those words are nuggets.

I have also capsized my trimaran when I broke the fragile akas, but it was easy to turn back, then empty and sail conservatively back as a proa. all done in summer and temperate lake water.

This said, I cannot even remember how many times I CAPSIZED ON MONOHULL DINGHIES namely the Olympic 470 ... that's what light overcanvassed boats are mostly about.

If you don't like it, there are many other options, including barges.

Beware.. those capsize too !

Best thing to avoid capsizing is lying under an apple tree.. Excellent against sea sickness, and you may even find out something about gravity...



# Vintage Pioneer Trimaran from Victor Tchetchet

July 13, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: pioneer trimaran, Victor Tchetchet

## Comments

**ian**

July 15, 2016

It gets better Joe- I don't know how I missed it in all of the online searches I've done for anything related to Tchetchet's original boats over the years, but I just now discovered that he applied for a patent in 1945 for his trimaran concept and related improvements, that was granted in Feb. 1952.

The online text of the application is scanned and run through OCR software that hashes it all up so it's slow going, but when you piece it together and comprehend what he is describing it is truly shocking how comprehensive his thinking was on trimaran design while still in the first half of the 20th century, with no modern precedent to follow- after reading his application and seeing the drawings (which include what looks to be this boat) I think there's a pretty strong argument to be made that he's been rather badly maligned in the subsequent years as making a good try but not quite getting it- the consensus seems to be that coining the term "trimaran" was his best work and main legacy- when he quite obviously knew exactly what he was doing and actually patented trimaran design concepts that are still seen as cutting edge today in some cases-

*"My invention relates to racing boats, and has particular reference to racing sailboats.*

*It has for its object to provide an extremely fast racing boat which will be substantially non-capsizable and non-sinkable.*

*An allied object of my invention is to provide a racing boat so constructed that it can be easily disassembled for shipment or storage.*

*These and other objects and advantages are obtained in my invention by providing a main hull of very high speed characteristics, with additional pontoons; also designed for high speed.*

*In another form of my invention I eliminate the central hull, having instead two spaced hulls connected by suitable boards or bars, on which a cockpit can be built.*

*In either case, I provide the pontoons, or the hulls, with inclined converging bottoms, preferably of an asymmetrical form, which design greatly increases tendency of the boat to swing to Windward, as will be more fully explained hereinafter...*

*The inclined bottoms and asymmetrical design tend to increase the pressure of water from the leeward thus bringing the vessel automatically to the Windward. This is a very important factor in sailing.*

*The tendency of the boat to swing to the windward is further increased by toeing in the pontoons as shown in Fig. 4. In addition to the foregoing features, both pontoons are mounted higher at their bows as shown in Fig. 5 to provide a planing action, thus decreasing the submersion of the leeward pontoon, thereby also decreasing the amount of the wetted surface..."*

In 1945 he's already at the cutting edge of late 1960's multihull design with the asymmetrical toed-in planing amas, and even beyond-

*...if necessary, two small rudders are provided on the bows of the pontoons, operated by cables simultaneously with the main rudder at the stern of the main hull, the main rudder - preferably folding- being operated by a tiller connected to the rudder by a rod. With this arrangement the working surfaces of all three rudders exert pressure on the extreme ends of the bow and stern levers."*

Not the first bow rudder, but certainly the first proposed on a trimaran (the prototype tri in the pictures doesn't appear to have them fitted)...even without it the pushrod main rudder steering gear is a pretty slick solution to controlling a stern hung rudder on a tri this size with a reasonably sized tiller.

This guy is clearly no dummy and is talking like a modern designer would today and coming up with some very advanced concepts, just without the hindsight of 70+ years of interim experimentation-

*" The main hull and the pontoons are built in conformity with the lines of the least resistance. I have found that good results are obtained when the main hull has the length-beam ratio from about 1:10 to 1:14, and the pontoons from about 1:10 to 1:18. The lines of the bow of the main hull are flared and have wide spray board to prevent the vessel from burying when going before the wind..."*

This kind of major trim adjustment is still uncommon on all but the most high tech race boats-

*"The brackets may be provided with a suitable mechanism for raising or lowering the pontoons in accordance with the load (number of persons aboard, for instance) and condition of the sea.*

*...The adjustment of the pontoons is useful to take care of the added weight, for instance, or of the particular weather condition. Thus in a choppy sea it is desirable to lower the pontoons all the way down, or all the way up, according to the height of the waves, to avoid slipping..."*

There's more neat stuff in the application including how to fit it with wheels for launching and moving it, how to make it into an iceboat, more on the catamaran version...

it's interesting to note that unlike the first Hobies, his asymmetrical ama design was about helm balance and not lateral resistance, further evidenced by this-

*The main hull is provided with a lee board pivoted and sliding in a slotted bracket...*

His cat design in the patent application has a board too.

It's also worth noting the earlier patents that the examiner referenced in reviewing the application- Hereshoff's 1870's catamaran is the first one, another is a hydroplane speedboat and a bunch of the rest are aircraft designs, seaplanes in particular.

Seems that the trimaran/aircraft design connection was there literally from the very beginning.

<https://www.google.com/patents/US2585599>

My takeaway after reading through it all is that even though he wasn't a professional engineer Tchetchet was a true visionary genius and had really thought out most every angle or learned it from direct experience by the time this Popular Science article came out in 1947; the person behind that application is obviously a very knowledgeable modern trimaran sailor who is very aware of their strengths and weaknesses, who was also a smart enough designer to develop and patent the concept decades before the idea really took hold.

In spite of all of this I have never once seen any reference to this patent in any discussion of him or his boats, which seems almost criminal considering how far ahead of their time these ideas are...I only found this accidentally when reading something about his professional career as an illustrator (he did some very nice pin-up type art worth checking out), that referenced another patent he had for a removable traction cleat for shoes.

He also co-owned a patent for a planing monohull powerboat, and evidently had applied for patents on the kinds of larger tris anticipated in the original patent application including one for "trimaran sail yacht, 46'6" cruising and 45" auxiliary types" in 1964.

#### **Stefano**

July 23, 2016

Ian is truly the living encyclopedia of Trimarans. Thanks for sharing ( although I cannot read the pop mechanics page. I Will add that the Gougeon bros. Of famed epoxy wood boat Construction have homaged Tchetchet's work naming "Victor T" one of their first tri designs.

#### **Steve A.**

August 5, 2016

The plans for this tri are available at various places online, often free. One such is Popular Mechanics July 1951. A search for "Popular Mechanics Trimaran" will find it. There's also a good section on Victor Tchetchet in Robert Harris's "Racing and Cruising Trimarans. Harris and Tchetchet knew each other and the book is dedicated to Tchetchet and Piver.

#### **Small Tri Guy**

August 5, 2016

Great info ... thanks Steve. Thanks for this link - <https://books.google.com/books?id=WnkdAAAAMBAJ&pg=PA174&lpg=PA174&dq=Popular+Mechanics+Trimaran&source=bl&ots=S45kqE7H6n&sig=AEIkQa5K1eXNx2DEF5GE2OD1Ytc&hl=en&sa=X&ved=0apnBuKrOAhVD5iYKHZViCG4Q6AEIHjAA#v=onepage&q=Popular%20Mechanics%20Trimaran&f=false>

#### **Linda G Tchet**

August 10, 2016

This is so thrilling! I'm one of Victor Tchetchet's grand-daughters. I actually have the original designs and drawings to Victor's trimaran.

Thank you so endless very much for sharing all of this wonderful information and the actual words of my grandfather!

Sincerely,

Linda G. Tchet (my dad shortened our last name from Tchetchet to one Tchet)

#### **Small Tri Guy**

August 11, 2016

Hi Linda,

So great to have you comment here ... really neat!

# Discovery 20 Trimaran Now the Discovery 21

July 21, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Chris White, Discovery 20, Discovery 20 trimaran

## Comments

**Stefano**

July 22, 2016

Complete boat at 63 k USD... I'll have to start putting coins aside...

**Small Tri Guy**

July 22, 2016

Hahahahaha

**Bryan**

July 23, 2016

Yeah, someone has to be a bit of a Chris White lover to buy a no cabin 21ft when that 63K can almost buy you a F22 which is around 75k...

**Small Tri Guy**

July 23, 2016

It's definitely a product for the high-end market. I have no doubt, however, that this updated trimaran design — made with modern composites — is going to be a high-performance sailing machine. Jim Brown told me the Constant Camber constructed DC20 was a fantastic boat.

**Small Tri Guy**

July 23, 2016

By the way, I've met Chris White and he is a really neat guy ... super smart!

**Bryan**

July 25, 2016

I think his boats are the best, I just can't justify a pure racing boat at this price point, without even a cuddy.

**Guy**

March 21, 2017

Too expensive. I actually really hope it fails at that price, hate rich peoples toys.

# Does This Tri Look Familiar?

July 25, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: mystery trimaran

## Comments

**Manfred Pech**

July 27, 2016

Bow fitting for OFNI: <http://up.picr.de/26322903om.jpg>

**Manfred Pech**

July 27, 2016

Rudder for OFNI: <http://up.picr.de/26322985nv.jpg>

**Manfred Pech**

July 27, 2016

OFNI = objet flottant non identifié? [naut.] = unidentified floating object.

Boat was designed by Joubert and Nivelte (NAs) and built by NEW MARINE, France. First year (1985??) 1000 were built and sold for 2650 DM (Price Germany). Length is 3,60m, beam 1,47m, draft 0,20m, sail area 6m<sup>2</sup> stayed surf sail and weight 43kg. Building material is polyethylene.

**Small Tri Guy**

July 27, 2016

Hi Manfred,

Great link to that old image!

Is there any other reference on the web for this boat that you know of? I don't see this boat listed on Sailboatdata.com for Joubert and Nivelte -

[http://sailboatdata.com/view\\_designer.asp?designer\\_id=119](http://sailboatdata.com/view_designer.asp?designer_id=119)

Thanks for taking the time to help us identify this sailboat.

**Manfred Pech**

July 27, 2016

German "YACHT" wrote that NEW CAT 14 is from Joubert and Nivelte. In the same year OFNI was created by NEW MARINE. These polyethylen multis need good NAs because of the material and the calculations about the forces. But I am not so sure with OFNI.

Maybe someone will contact the factory: NEW MARINE, Rue Kerandre, F-56700, Hennebont, France

**Small Tri Guy**

July 27, 2016

Excellent follow up information Manfred. Many Thanks!

# Ultralight 20 Trimaran for Sale in Canada

July 26, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: UltraLight 20 trimaran

No Comments

# Sardine Run 19 Trimaran Sailing in France

July 28, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Sardine Run 19 Trimaran

## Comments

**Reuben Filsell**

July 28, 2016

Love the boat, I have investigated Basalt fibre before but haven't found any user experiences. Could you tell us as much as you can about how you have found using it and its properties in relation to boat building.

Thanks

R

**Stefano**

July 31, 2016

As far as I know, basalt fiber is something that is increasingly in use in Europe to substitute glass in laminates. I really ignore why, since the environmental goal that sometimes is put forward makes little sense, due to the fact that the waste problem in life cycle of Fiber RP, is the resin, not the glass... If I recall correctly it should have better mechanical properties, and ( ??) lesser weight than glass.

The Sardine rune is a pretty nifty little boat. My idea of a day boat fun-trimaran.

**allel**

August 2, 2016

For those who wonder why I use basalt:

Developped by the Soviet aerospace technology, the basalt fiber is rarely present in boatbuilding. After two encouraging trials, building kayaks laminated with twill and bi axis basalt, I chose to use it for the Sardine Run 19.

Basalt fiber is interesting as composite reinforcement considering (among others):

- High breaking load and high Young's modulus, good rigidity and resistance (13.7% stronger and at least 17.5% - to 34% - more rigid than E glass)

- Very Good wetting

- UV resistance

- Hydrophobe

- Best Casting finish

- Recyclable

- Price Between the E and S glass

- The Diameter of the basalt fiber is equal to at least 8 microns, so above the limit of 5 microns required for breathability

- chemical resistance

- neutral material, natural and available

- Very Good thermal conductivity and electrical resistivity

- aesthetic -aspect

Some disadvantages:

- 3.6% Heavier than glass (density of 2.7 vs 2.54 Glass E)

- abrasiveness

Fabrics are manufactured by Basaltex. A satin -300gr / m<sup>2</sup>- (draping the hull and floats) and a bi axis -450gr- / m<sup>2</sup> (filet reinforcement ) are used.

The main bulkheads are made by combining basalt and carbon fibers.

The matrix used is an epoxy resin Gurit sp 106. The whole is made by hand lay up.

More complex parts have been made by vacuum lamination.

It's an interesting alternative to glass. The mechanical benefits exceeds the price increase.

Of course it will be perfect with a nontoxic matrix.

Now, time and experience will detremine its real potential.

**ian**

August 21, 2016

I have no experience with basalt fiber and didn't even know it was being used for FRP, so thanks for the heads up and all of the info.

I do know something about glass though and to Stefano's point about glass and environmental/recycling concerns:

The big issue with glass and the environment is the energy necessary to make it; the materials themselves are a relatively inexpensive part of the finished product, with shipping and handling costs being pretty extreme too because of its weight.

When it comes to recycling it, there's also the problem of different glass having different formulations, with scrap/cull glass being pretty hard to ID...even sources of known material have a hard time recycling it because it's often cheaper and less risky just to use the same energy it takes to melt it down and re-form it to make it fresh from

cheap and readily available raw materials you know the composition of...plus, glass is mostly inert and not particularly harmful by itself in a toxicity sense like other materials that are recycled regularly, so there's no big push to keep it out of landfills. Bottles that can be reused are a different story, but even clean glass scrap is practically worthless.

One thing I did learn about basalt fiber reading up on it is that it can be made from basalt and nothing else, while glass usually has a number of components added beside silica to adjust various parameters for specific uses.

Some of those do present environmental concerns, maybe not so much in the finished product but stuff like lead, cadmium, fluoride, arsenic and other metallic salts used to tint some glass or for certain effects can be very toxic during the production process, and mining them can be pretty bad for the environment too.

But I hear you about a lot of recycling proposals not making a lot of sense- one big one in the US these days is using shredded blue jeans instead of glass fiber for home insulation, with its recyclable nature being touted as a great thing.

Using something other than glass for insulation does save the energy used to process glass so it's not entirely without merit, but I've never in my life seen any construction project where the *insulation* was saved for recycling...even a lot of the aluminum from demolition isn't worth the effort money-wise for what you can get for less than perfectly clean scrap.

But the idea that you *can* recycle wall insulation *sounds* good if you don't really know what's involved...just as the idea of recycling the glass in FRP might sound good in theory but practically speaking would be a huge undertaking with its own negative environmental impact, that makes little sense compared to just building a strong FRP product that will last indefinitely if you take care of it rather than making junk that *needs* to be recycled.

# Small Trimaran News Bits from Richard Woods

August 4, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Richard Woods, Strick 18 trimaran, Strike 15 timaran, strike 20 trimaran, strike trimarans, Tryst Trimaran, zeta trimaran

No Comments



# New Chryz Outlaw Trimaran

August 4, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Chryz Outlaw trimaran

## Comments

**Stefano**

August 8, 2016

Pretty fast boat. I'm impressed by how much the centred mast dampens the hobby horse motion (together with a longish hull and probably well placed hull volumes).

A couple of questions to designer and builder:

- is it really worth bothering with a 2 sqm jib? A class cats do quite well without one. What is different here?

- is the carbon mast available as such, or have you built that one too?

- what is the displacement of main hull and floats?

Thanks, Stefano

**Robert**

August 8, 2016

Looks sleek and fast. I wonder how hard it is to get under the boom while tacking?

**Christofer Olsson**

August 22, 2016

Hello. Sorry for late answer Stefano! Thanks for comments!

\* The 2sqm make enormous difference. More than expected. A-class manage well, but they fly more or less in comparison. Compared to A-class I have the mast 13 cm further back. That was my "guessing" would be perfect with a jib. Mast is placed exactly at 50% of the boat. I have modified a A-class carbon mast.

\* The displacement is

main hull 46 kg

side-hull, 2x 26 kg

Total 150 kg.

I have tested some now, and the boat would be better balanced with a jib, 4-5 sqm.

Ang downwind, I need a much bigger gennaker. maybe 15 sqm.

Chris

**Christofer Olsson**

August 22, 2016

<https://cholsson.files.wordpress.com/2016/08/wp-1471465868895.gif?w=800>

From last wednesday. Some photos from the air

**Chris**

November 2, 2016

Added a new video when I race against A-Cat.

<https://youtu.be/vEHXJQNaxXM>

**Small Tri Guy**

November 2, 2016

Pretty neat video Chris!

# Zeta Trimaran Hits the Water

August 12, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Richard Woods, zeta trimaran

## Comments

### Stefano

August 14, 2016

That's how it is Mr Woods... You start with one, then another, and then you just cannot step back. Trimarans are addictive.

Looking forward to a cruising 22 footer smart design.

### Small Tri Guy

August 14, 2016

Hi Stefano,

When you think of "smart" design, what would you like to see in such a boat?

### Richard Woods

August 23, 2016

We weighed the boat today. Main hull is 95lbs, each outrigger 24 lbs. Complete boat is 160lbs assembled excluding rig. That's why I can carry it all so easily and why it sails well with a small sail area. We made a screecher today which will double sail area in light winds, so watch out for more videos later this week

### Small Tri Guy

August 23, 2016

Looking forward to more videos Richard!

### Small Tri Guy

September 6, 2016

Richard sent me the following via email today. With regards to the weight of the Zeta he said, "I have now weighed the boat. The main hull weighed 43kgs (95lbs), each outrigger 11Kgs (24lbs), all four crossbeams 8kgs (18lbs) So a total weight ex rig of 73kgs, (160lbs). That compares favorably with the Weta trimaran, as, from their website, the Weta main hull weighs 132lb/ 60kg, an outrigger plus beam 40lb / 17kg and all up weight ex rig is approx. 100 kg (220 lb). Shows it is very hard to beat plywood on small boats!"

### Tony

October 4, 2016

Love this little tri. I have 2 x Bazooka tri's which come in at 12 foot and weight of around 60kg. Sail area is around 8 m2 and they go hard, making a small jib for lighter air. I personally love trimarans in this size range that are able to be transported easily, assembled quickly and used multifunctionally to sail, swim and free dive, fish, explore, camp and basically have a lot of fun making awesome memories with. They are stable, performance is awesome, suit from kids through to adults and get used way more than larger boats.

Thanks small trimarans and thank you Richard and others who find these boats as fascinating and fun as I do.

This is a beautiful little boat that would be awesome to make.

# Paraws in the Philippines

August 18, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: paraw

## Comments

**Joost**

August 18, 2016

I am JEALOUS!

**ian**

August 18, 2016

Hi Joe,

If you pause the "Boracay Island Paraw Sailing" video at 6:06 there's a pretty clear view of the steering in action...

it \*is\* a bit confusing until you can correlate all of the various angles and force vectors in your head- the boat is heeled to windward (something seen in other paraw videos, fwiw), which really throws off your perspective at first.

Knowing that and the wind direction, if you imagine a tiller attached and forget the lines it is clear that the helm is balanced with a fair amount of weather helm- at first glance the rope tension to leeward makes it seem like something different might be happening and you can't tell what's going on from the skippers body position like you can with a tiller equipped boat, but it's all pretty standard sailboat geometry and forces at work.

There's a nice account of another paraw trip by an obviously knowledgeable western sailor here-

<https://sailsandcommas.wordpress.com/category/sailing-2/helming-sailing/>

-that has some more operational details-

*When we got on the boat, both sails were already up, two local boys looking at me curiously. Jony decided to get the boat out of the busy area before we swapped places. When I finally sat down in the driving seat, I was excited but cautious. There is a rudder but no tiller on the boat - instead, you have to pull on ropes on each side of the hull and do finer control with the sails. You can't really see the headsail while sitting down. There are knots along the headsail sheet that allow trim for a particular angle. No finer controls, no boom vang or cunningham, no lead cars or outhaul. No telltales or a windex, it's driven entirely by feel.*

From what can gather, operating in steady tradewind areas the boats rarely encounter situations that might require lots of short tacks or fast course corrections; they are mostly able to reach back and forth and don't encounter a lot of traffic or marked channels or other obstacles and don't have to navigate to a marina slip, so the lack of fine feedback and inability to push a rope doesn't get in the way very often.

I imagine in the rare hurry-up crash situation that required faster lee helm input you could just let go of the ropes and grab a paddle to steer with.

Comfort-wise, I would personally be good for about 15-20 minutes tops gripping a small line under tension like that before my hands went completely numb due to carpal tunnel syndrome, but that rudimentary control horn/bell crank and line setup is easily adapted to all kinds of remote input devices from tillers to foot pedals to wheels, that would also allow for better feedback and equilateral steering control by keeping both lines tensioned at all times.

Makes me wonder how long they've been using it; it's one of those intuitive engineering solutions that could have been thought up eons ago by a moderately intelligent caveman, even before anyone had developed line and other materials adequate to implement it...but wasn't implemented in the western world until well after those things had been available for a very long time, and not until after the interim solution of whipstaff steering had run its course.

When wheel steering came along the early examples still had a tiller belowdecks that limited rudder travel far more than this setup does, and it was decades before someone ditched the tiller altogether for a control horn/bell crank or quadrant system that allowed for larger rudder angles.

Anyway, these are indeed fascinating boats, as is the culture surrounding them- two other neat things I learned when digging around inline for more info is that the related vinta boat of Mindanao is also the basis for one of their traditional dances-

*"Vinta" is also the name of a Moro dance that commemorates the migration of Filipinos into the archipelago. In the dance, dancers imitating the movements of the vinta (vessel) by balancing perilously on top of poles.*

<https://en.wikipedia.org/wiki/Vinta>

The other neat thing is that there's an annual multi-day paraw regatta that has been going on in one form or another for hundreds of years, that combines trimaran racing with other fun events including a Miss Paraw Regatta beauty pageant (another huge national pastime in the Philippines)-

*Paraw Regatta festival origins*

*The first goes back to the pre-Spanish area, narrated in a Maragtas legend, when 10 Bornean chieftains (datus) fled the despotic Sultan Makatunaw. These 10 datos, led by Datu Puti, reached Panay in 1212 AD. In Panay, they traded with Haring Marikudo, the local Aeta king.*

*The Paraw Regatta festival copies the boats brought to Panay by these chieftains.*

*The second origin reenacts a 16th century sailboat race that had been an entertainment for the Iloilo city then.*

<https://www.facebook.com/iloiloparawregattafestival>

### **Small Tri Guy**

August 18, 2016

Hi Ian,

Great comments (and links and info too)! It appears there are 2 rudder control lines. I wonder if each one run through its own block. I also would not want to hold a tension line like that for very long. A block would help in that regard but I'd like to see a different rudder control setup ... but as you (and many others would note) this has worked well for Filipino sailors for a long time.

### **Wade Tarzia**

August 19, 2016

My friend Carlos built something like a paraw using a 21 foot proa hull and 5 inch diameter bamboos, and lovely laminated beams, for our 2009 attempt in the Everglades Challenge. Sadly we developed a hull leak and dropped out by the end of the day, and we set out under-canvased as we wanted to sail conservatively until we got to know the boat (the not untypical "paint still wet" scenario of many EC attempts). I was very interested in the behavior of those skinny amas — you could push them under water with just your foot, but the long beams gave them a lot of righting moment. Those closely spaced pair of aft beams with netting stretched between them was an agreeable space!

### **ian**

August 19, 2016

The rope steering setup could be made more comfortable/manageable by using one continuous line with ends that attached to both control horns as shown in these videos but that formed a loop around the helm seating area, that could be kept tensioned by blocks or small capstans or even just a couple of bollard-like posts made of some durable material.

It would be a lot easier just to keep track of, and might also help relieve some of the effort required to hold the helm position if there was enough tension to induce some friction into the system...it would require a fairly delicate balance and with enough friction to really help you'd likely lose some of the rudder's ability to self-center at lower speeds, which might get exciting if you let go of the steering expecting the boat to round up automatically, but it didn't.

Still seems preferable to having to find and pick a line to pull on, out of at least three in the cockpit.

### **Stefano**

August 21, 2016

Ian writes:

"The rope steering setup could be made more comfortable/manageable by using one continuous line with ends that attached to both control horns as shown in these videos but that formed a loop around the helm seating area, that could be kept tensioned by blocks or small capstans or even just a couple of bollard-like posts made of some durable material."

Looking at other paraw videos I have read somewhere that the rudder control line was "diamond shaped" loop so the tiller position could be managed from about everywhere in the boat.

I have a friend that built a trimaran on the same lake I sail on, and arranged a continuous line with the right amount of friction so that once set, the boat steers itself. A very convenient situation especially if you are out on the sea for professional reasons. It leaves two free hands to work on something else.

### **ian**

August 21, 2016

Hi Stefano,

Right after I posted that I happened to see the exact same post you are referring to- it's in the comments section of the page Joe linked to in the first sentence of this story, along with a lot of other good technical info from people who have built and sailed them-

<http://smalltrimarans.com/blog/a-peek-at-the-philippine-paraw-trimaran-regatta/>

-that friction setup definitely has benefits for singlehanded or work situations as you point out but personally I'd want some ability to take the tension out quickly and indefinitely so the helm could be free floating when it mattered...like during singlehanded unassisted docking situations under sail where you rely on the boat's natural desire to round up when the helm is left unattended, especially with the dock or wharf or another boat to leeward.

If the rudder \*always\* stayed in the position where you last left it your ability to slow down could be seriously compromised and in a breeze the result would be more like a carrier landing; power on until a line arrests your forward motion (been there many a time in multihulls). You can ease the sheets of course but it can be hard to judge just how quickly multis can lose their inertia and even with the sails poorly trimmed they can still go fast enough to do some damage...

they can also take off like a rocket if the wind shifts to where the eased-out sails come into perfect trim, which could really spell disaster in the kind of scenario where the locked helm might be useful for a singlehander, like going forward to fend off during docking or doing something out of the cockpit while offshore, something you really shouldn't ever do with even a crude autopilot engaged.

So it's kind of like a cruise control on a car- a real luxury in some situations, but dangerous to have engaged in others.

Obviously you can adjust the tension but the problem is that enough tension to make it useful at normal sailing speeds will always overcome the rudder's ability to overcome it at lower speeds. It's sort of like having the caster on a car or motorcycle front end reversed, so that rather than needing force applied to make turns and self

correcting back to straight when you let go of the steering, it always wants to turn one way or the other and you have to apply force to keep it centered. Both will do the work but one is inherently safer and is less stressful to use.

It's not a perfect analogy but the point is that the rudder's ability to windvane when you want it to is a safety concern.

Of course a lot of this is mostly irrelevant for these boats that are beach launched and don't need to do a lot of fine maneuvering, but it's worth mentioning for anyone in less optimal circumstances.

One other neat thing you can do with this kind of rudder and bellcrank is to deck mount a pivoting tiller with a corresponding crank arm forward somewhere on the boat, with appropriate lines or pushrods to connect them- the trick is that you have to cross them somewhere in the loop to keep the expected tiller input/turn direction relationship intact.

This is a great way to add tiller steering on fine hulls that require the crew seating to be too far forward for a typical outboard rudder and tiller to work, and if you make the tiller end crank arm(s) longer than the one(s) at the rudder you can narrow the arc that the tiller needs to swing in to get full stop-to-stop rudder travel, which can also be helpful when trying to keep travelers and stern rails and other hardware out of the way of the tiller arc on narrow hulls.

If you can make it all fit and get the crank arm and tiller length ratios right you can also develop a mechanical advantage over a standard tiller this way, so that you could move a larger rudder or multiple rudders without needing a longer tiller to keep the input energy requirements the same.

**Stefano**

August 22, 2016

Ian, speaking about boats that are self steering in unwanted occasions, my nightmare would not be to have it stuck while docking in a crowded marina, but rather, to have it stuck and steadily on course if I were to stumble and fall overboard on some island passage.

As a roman raised car driver, jammed places – land or water – are definitely more familiar to me than open prairies. Let me guess... given your opposite kind of nautical nightmare, are you from anywhere in the "corn belt" ? :-) ...

Yours friendly, Stefano

**Stefano**

August 22, 2016

Double steering wheel friction based "auto pilot", sported on the home designed and built demountable trimaran "Nonna Lilla", built by designer-owner Pietro Barone in Italy.

<http://www.nonnalilla.org>

**ian**

August 23, 2016

Hi again Stefano,

Your nightmare scenario scares me too but of the two it seems the most easily guarded against using common sense and safety harnesses and planning for singlehanded like sheets and halyards led to the cockpit, while docking and coming alongside other boats or objects when singlehanded is not only inevitable but may be necessary when you least expect it and/or under adverse conditions. If you fell overboard during docking- and haven't we all?- you might be able to scramble onto the dock to safely watch the boat sail away, but it might also grind you against the dock until it cleared the obstacle.

Both scenarios speak to the need for a way to "turn off" such a system for safety.

You got me, sort of, on the corn/prairie thing...wheat actually, but guilty as charged.

The "roman raised car driver" thing explains a lot though- I can understand your desire to keep both hands free, otherwise how could you steer *and* communicate with your crew and other sailors at the same time? =O

The Nonalilla is quite the setup...do you know if the control lines use the various blocks to develop any mechanical advantage to make the steering faster than it appears to be?

I ask because the relative sizes of the rudder sheave and the ones on the wheels would seem to make for lots of turns of the steering wheel for minimal rudder travel, like a bicycle chain on a small front/large rear sprocket. Easier to turn a big rudder that way, but at the expense of torque/fast steering action.

I also wonder because in the rear view if you follow the lines from the rudder sheave forward it looks like there's a multi-purchase portion of the pulley system that would also make for even less input effort but would further slow down the steering response.

The boat and rudder don't look so large or heavy that they'd need that high of a steering ratio, but maybe there's something else going on...

**Dave**

September 27, 2017

Hi all, interesting post. Does anyone know how these craft operate to windward without leeboard? I'm getting really interested in building a tiny version – the Bigiw I believe – for cartop and carry to the beach, a less is more philosophy for putzing around or many local lakes. But lakes mean frequent changes in wind direction and the need to sail on all points as you roam in and out of bays and follow winding shorelines.

**Small Tri Guy**

September 27, 2017

Hi Dave,

Be sure to check out Ian's comments above.

# Sailing Paraw – Photos, Including Rigging

August 28, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: paraw rigging, Paraws

## Comments

### Joost

August 29, 2016

Astonnigly bieutifull boats! Sailing them must be a dream I guess, thank you for sharing this!

Against the termites, would it work out if the wood is covered with glasfiber/epoxy?

### Lorenzo

January 10, 2017

Anyone looking for a building plan of a 20 ft sailing Paraw? Check this site;

<https://samaloutrigger.wordpress.com/>

### Small Tri Guy

January 10, 2017

Hi Lorenzo,

Great to meet you ... and thank for sharing your site with us. I'd love to know more about you and what you're doing with Paraws (and boat plans too). Perhaps we can do a post featuring more about your work.

### Lorenzo

January 10, 2017

Hi Small Tri Guy,

Thanks for the welcome. I've been reading your articles since 2011.

I am a civil engineer from the Philippines with a passion for small wooden boats. Carpentry is one of my hobbies. Designing and building small boats is a lot more fun than concrete and steel buildings.

In 2008, I joined a local online boatbuilding forum at <http://www.pinoyboats.org>, where we talk about sailing dinghies most of the time. Occasionally, there will be someone asking about double outrigger plans... and there is none available, because most Filipino boatbuilders just pass the knowledge by oral tradition, a social norm for centuries.

Having the technical skills in making building plans, I felt morally bound to make one, especially when someone of Filipino ancestry (born/grew up in a foreign land) is asking for it.

The Paraw, Vinta, and Bigiw are the popular traditional sailing outriggers of the Philippines. Yes, a featured post would be interesting. I'll prepare an article about this Paraw project and will contact you as soon as it's ready.

All the best,

Lorenzo II

### Small Tri Guy

January 10, 2017

Sounds great Lorenzo. I look forward to it! And thanks for sharing a little more about what you do with us.

### Steve Veltkamp

May 10, 2017

Very cool. Building my own double-outrigger sailing canoe right now, similar to biglang bangka syle..

### Lem

December 17, 2017

Hello Bill and any other Paraw fanciers;

My Pinay wife and I (US expat) reside in Dipolog, Zamboanga Del Norte. This is the exact boat we are hoping to find, build, have built but assuredly to sail. Pretty much all native. Unfortunately no one in the area is at all familiar with sail power. Starting from a banca does seem to be a solid foundation. Can you point us in the correct direction to head? The questions amount to many.

### Small Tri Guy

December 17, 2017

Hi Lem,

Gary Dierking is the expert when it comes to native small tri designs. You can get the links to his websites here – <http://smalltrimarans.com/blog/more-on-gary-dierkings-waapa-trimaran-canoe/>

And you can find out how to obtain Paraw building plans here – <http://smalltrimarans.com/blog/paraw-double-outrigger-sailing-canoe-plans/>

**Salvatore**

July 31, 2019

Hi small tri guy! I'm Salvatore. I'm in Saipan and just started building a small Paraw sail boat. I gotta say the Paraw is the best design I've come across in a long time. I'm excited to build this boat because it will be the only Paraw on this island. Plus, there are many Filipinos here who I think would love to see a Paraw sailing down the beach. Glad I ran across this site.

**Cowboy**

December 10, 2019

Hello sir, I have my 10meter Banka on Honda Bay, Palawan.

It is a sound 1 year old boat build as a traditional banka that I would like to convert to a para.

I'm a US guy who has previous sailing experience and I love these boats.

Is there someone you could recommended to help me ?

I'm not rich or broke, but lost most everything, including my yacht to hurricane Irma in the US 2 years ago.

I just love to sail

**Small Tri Guy**

December 10, 2019

Hi Cowboy,

One expert you can contact is Gary Dierking (<http://outriggersailingcanoes.blogspot.com>). His email is gary.dierking@gmail.com

# Tridarka Raider for Sale

August 28, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Tridarka Raider

No Comments



# Strike 16 Trimaran for Sale

August 29, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Strike 16 Trimaran

## Comments

**Andrew Boulter**

August 29, 2016

Hi,

Really nice example. Know how you feel about the finger I did the same thing a couple of years ago and that was after 60 years as a cabinet maker!!! Looking to build the strike 15 but I have a slight hang up about the creditability of the ama connections.

Cheers..... Ned

**Richard Woods**

September 1, 2016

A very nice looking boat! A bit worrying that you think you are too old to sail it, you are only a few years older than me. And a lot younger than Dave who also has a Strike 16, see earlier posts on this blog, or here <http://sailingcatamarans.com/index.php/designs/27-trimarans-under-25/462-strike-16-in-peru>

re the Strike 15. As I say on my website, you can now build the boat with bigger outriggers and a slot in beam system, similar to that used on the 14ft Zeta trimaran, which is very stiff, yet quick to assemble

**Ben Reese**

September 2, 2016

Hi Richard,

Great job on your boat,

I am very interested and think your rig would be a fine one for Lake Tahoe close to my home.

Please contact me.

Ben Reese 408-309-8182

**Tony Bertram**

January 16, 2023

Hello is the Strike 16 still for sale if so I am definitely interested

# Growing the 10 Foot Trimaran Class

September 1, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: 10 foot trimaran, 10 foot trimaran class

## Comments

**Stefano**

July 9, 2017

Thumbs up for Aurelio ! Also for having Mr. Henseval step into the 10ft class design team.

My question is : do you expect much lift from the hull ? Because the profile shows a deeply submerged transom, which in turn means lots of drag.

Was the carbon fiber hull actually built along the plan lines ? Or is it's bottom wider? I think the Weta and recent Farrier 22 design concept is unbeatable for a short hull: better have a planing wider hull,skimming the surface, than a narrower one sitting lower into the water and having to force itself through. beam-length ratios in this size range work well only for low-power hulls in my view. 22 cm draft seems a lot for such a small tri.

**Rob O'Connor**

July 12, 2018

Hi, I would like to build this boat here in Brisbane Australia. Can you please tell me how I can obtain the plans.

I am told there are a few other 10foot trimarans here in Queensland Australia and I think a new design may prompt some interest and perhaps help to get a few races and group outings happening.

Hope you can help

Cheers

Rob

**Small Tri Guy**

July 13, 2018

Hi Rob,

If you can use one of the links in this post to find out how to contact Aurelio then he should be able to get plans to you. I thought there were free plans posted for this model.

Joe

**Mark Booth**

February 11, 2019

I'm looking for a set of plans for a trimaran. I would like more information on whether a trimaran is the best one for me.

**Small Tri Guy**

February 11, 2019

Links to lots of building plans (for different trimarans) can be found on this site Mark. You can correspond with their designers to access if the features offered will bring you the particular benefits that are important for you to have in a boat.

**Wayne Wright**

June 13, 2022

Hi Aurelio,

With the development of this 10ft tri class, are there any basic measurements that are mandatory? i.e..10 feet, is this the water line length or the length overall. What is the maximum beam to the outer edge of the amas. Is there a maximum sail size. No of sails, main, jib, spinnaker, gennaker, etc.

Are there any groups starting in Australia?

# MacGregor Venture Hobie Trimaran Now Sailing

September 2, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

## Comments

**stefano**

September 3, 2016

Lovely boat this is... I like so many features of it, especially the bimini ( hate staying in the sun), the diamond spreaders added, the self made roller furling, the orange stay tensioner, the three "windows" on the sides...

Even the colour looks perfect, not to mention the benches.

If I can say, Only the tiller arrangement bolted in front of the rudder case looks- and probably is - weak. The tiller should rotate, but at the back of the rudder case. You could think of using aluminum tubing from old windsurf booms, they are perfect in size and curvature. But the tiller needs to embrace the case, or it will part from it on windier days, when you would appreciate it being solid enough not to brake.

On my tri ( 720 TT farrier) I built a 4 metre Yuloh chinese sculling oar. It would store easily on the akas and I would use it as an effective tool to approach the mooring buoy (I could push the loaded 1800 pound boat at up to 3 knots). It was built heftily and could work as a spare rudder if unfortunately needed.

Enjoy your boat. Please give us dimensions and weight, draft.

Stefano

**Travis**

September 15, 2016

Stefano,

Thanks for the compliment. I apologize for the delayed response to your comments. Life has been busy for me lately. Thank you for the advise about the rudder. The Bimini was a must for me. The sun can be brutal here in Florida so the boat would be much less enjoyable without it. The bench seats make the boat really roomy and comfortable. They are one of my favorite things about the boat. I'm surprised other designers haven't come up with the idea or tried using them in their own designs. Each seat adds about 25 pounds of weight to the boat. I guess that's why nobody has considered using them. The comfort and roominess they provide is well worth the additional weight in my opinion. Tramps are nice to lay on and gaze at stars but they are not very comfortable to sit on for any length of time while sailing. The bench seats can also function as a table if you sit on the foot rest area and face toward the outriggers. In that position you can rest you back against the cabin and it's very much like sitting at a picnic table. I plan to eventually make the benches where they unfold to create a 4ft wide by 7ft long platform that can be used for many purposes like sitting in a beach chair, laying on a blow up mattress or other flotation device on the platform or even a place to pitch a small tent for extra guest to sleep on weekend camping adventures. The boat is 21 ft long and 14 ft wide. I haven't put the boat on a scale for exact weight yet but knowing how much a Mac 21, a Hobie 18 and the additional wood and fiberglass I used weighs, the boat should weigh somewhere around 1300 to 1400 pounds. The boat floats in less than one foot of water and with the boards down it has less than 4 feet of draft. I eventually plan to replace the dagger boards in the outriggers with one larger board in the main hull. It will be easier to get to and I will only have one board to adjust instead of two.

I love your idea of using a sculling oar! I had no idea it could more a tri the size of ours so well. I will definitely give that a try since you never know when the wind might die and the motor refuses to crank all in the same day. Thanks again for taking the time to share your thoughts about the boat.

**Bob Paine**

May 28, 2017

Travis: I put together a 15'Snipe plus 14' Hobie amas and the boat has been sailing very well right down the road from Lake Parker (on Lake Howard in Winter Haven). However, I would like to have something with a cabin (like your Venture) if I can ever find or make the time to get over to the Gulf Shores again. By the looks of your Venture, your boatbuilding skills are obviously several lifetimes ahead of mine (as you can see by my Snipe on another post); however, my question is when I decide to undertake something more ambitious like your Venture project, would be advisable for me to start with a water ballast boat (such as a Hunter 17.5 or a small Macgregor) so that I don't have to contend with removing a heavy swing keel and replacing it with a centerboard (since from what I understand these water ballast boats already have the centerboard)? I thank you for your anticipated advice. Bob Paine

**Joe Castiglioni**

October 20, 2018

Hello Travis,

This is a very interesting and impressive concept and build. Would be able to show more details of the construction, design layout, and some idea of the boat's performance now. I suppose speed is still bound by the rules for the displacement hull, but still this looks like it could make a very nice coastal cruiser or weekender. Are you satisfied with the boat? What would you do differently, if anything? Thank you for posting this.

Joe Castiglioni

**Bob Paine**

November 19, 2018

Travis: I guess I have already shown my ignorance inasmuch as Hunter does not make a 17.5 water ballast sailboat. Perhaps I should have asked whether a Hunter 23.5 water ballast or a Macgregor 19 water ballast would be a good starting point for the project inasmuch as they already have a centerboard and no weighted keel to remove.

**Bob Hale**

December 9, 2018

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

we built a boat as you have back in the mid eighty's. we were putting together Seawind cats, used a "alligatored" hull as the vaca and used Hobie 18' as the aca's. nice boat, burnt to waterline in Florida....long story. Cheers

# Announcing a New Podcast with Jim Brown

September 7, 2016

Categories: Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

Tags: Jim Brown podcast, multihull podcast

## Comments

**Ryan Galloway**

September 8, 2016

Nice! Look forward to the Capercast!

# Jim Brown's Nautical Lore Capercast (Podcast) Launches

September 9, 2016

Categories: Small Tri Info - All, Small Trimaran Audios

No Comments

# Seaclipper 16 Sailing in Tennessee

September 15, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, Seaclipper 16 trimaran

## Comments

### Steve A

September 15, 2016

Very nice build indeed, congratulations! Especially like the swing down electric propulsion. What unit is that? Could you tell us more about the installation, battery etc, and how it turned out in use, please, Ed?

Good sailing,

Steve

### Stefano

September 19, 2016

Great boat and build! I support Steve's A request for the propulsion.

Very much like the colour pattern : light blue, signal orange, black... I wonder where I've seen it before ;-) ...

I also love the kick-up / pintle arrangement for the rudder. I wonder how it works at speed... Does it have a tendency to lift, or is the bungee cord seen sufficient for keeping it in the desired position ?

Last but not least, if the spirit is free, I'd love to join the party :-)

Stefano

### Larry Saupe

October 25, 2016

Excellent workmanship and execution! Beautiful boat.

### Ed

December 29, 2018

Steve A. & Stefano – Trolling motor was from Wal-Mart. I cut a few inches of the end of the shaft to mount horizontally as a pivot point, then located the switch inside the cockpit. Motor is raised, lowered and secured in place by control lines. Battery is located under the aft cockpit.

The rudder is secured in the down position by a control line to the cockpit. To quickly raise the rudder release the securing line and push both rudder control pedals forward. I added a line to secure the rudder in the raised position for breaching abs trailer loading.

Ryan's for the interest. This is now for sale as I would like to build something else.

# Unique Foils Trimaran Almost Ready to Sail

September 22, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Foils trimaran

## Comments

### Stefano

September 23, 2016

Pretty sleek boat ! And the engineering must have been quite a challenge just for the fact of having kept the weight so low.

More than everything else, I wish I could live in a country where I could dare to cartop such a main hull on a smallish car, without being jailed without trial, while on the way ... :-)

### Gary Baigent

September 23, 2016

Stefano, we live very close to the bay and the boat shift was done with skill and low cunning, around a couple of back streets to a walking path to a quiet backwater ... and the light Frog main hull was skidded down grass slopes and some steps to be at one with the sea. No big deal nor unusual behaviour for the average Kiwi.

### Graeme

September 26, 2016

Hi Gary I'm really looking forward to see you blasting around this summer and wish you well with your sea trials.

### Walter

September 28, 2016

Yet another Kiwi masterpiece! I have been sailing Wetas up here in the Himalayas at 2000m on empty lakes: then one day a military submarine surfaced by my boat!

I wonder how you designed the dual foils? They look vicious!

### Gary Baigent

September 28, 2016

Thanks Graeme, Eric and I carried the mast through the park to the bay a couple of days ago, bit of wind so checked out the Frog's stability as the light platform hunted at mooring ... and quickly decided I'll need to add some buoyancy to the non? floats. Have made up some foam and glass extensions to epoxy to the after sections.

### Hans Schipper

September 29, 2016

I did not believe that the "only foil ama's" will work. I believe in a hybride system "floating and foiling". After all you need some speed before the foils do their lifting work. Before you reach that speed, you need the floating stability force. I'm very interested in experience with this combi. What is the best balance between wing surface and buoyancy? Can you obtain reliable stability with wings?

What is the minimum depth at which the foils provide sufficient lift?

Does anyone have experience with an efficient foil which release water plants?

I have the plan to make half V-shape foils at the ama's of my tri, the Triple A. I hope I can use the experience of others

### Gary Baigent

September 29, 2016

An earlier trifoiler of mine, a 6 x 6 metre named Flash Harry had tiny V cross section floats and an alloy main beam connection (so there was only fractional buoyancy there); Harry worked fine and lasted nearly 30 years before getting turned over while moored, wing mast was large chord, which survived enough to be repaired and put onto another tri. As said the floats were minimal but the foils provided the most/all of the lift once boat was moving. So I've gone a step or two further with Frog - but reality has already shown it may have been a step too far - so increasing the float/beam? buoyancy a little more. When that is achieved, will lift D mast and watch again ... as you do with lunatic projects.

### Tony

October 1, 2016

Hi Gary, Awesome looking boat. Will be interested to see the results of first sailing. Are you tow testing first to see if the foils provide sufficient lift? Would hate to see it go the way of the WR Rave V. I've had a plan for foiling amas for some time but neither the time or money to build. They have excellent floatation built in with minimal drag that significantly reduces as progressive lift kicks in. Will be watching this one closely.

### Gary Baigent

October 2, 2016

Once the mast is up I'll know if Frog is safe. Once moving/sailing I know from past experience that the platform will suddenly take on a very solid feel- because of the foils lifting and also locking into the water at the same time; that is not my worry, it is when stopped or moored that is a concern. Tomorrow I'll know the answer when I fit the newly built stern extensions to the floats.

### Guy

October 3, 2016

Inflatable amas perhaps.

### Tony

October 3, 2016



Love your comment regarding foils lifting and locking. I think that is one of the fundamental design flaws of a lot of foils that are simply designed to lift. Or are designed to change with trailing flaps trying to find balance. Sounds like you've got a good grasp of foil understanding, I can see in your design that the foils are used to balance heeling forces. Relatively flat though? Wouldn't this only give you a narrow window of leverage at surface to air contact? And then once in the water have a high up thrust? I will be interested to see how she sails, if you've got the balance right it should not hunt around too much for the sweet spot. All the best with further trials.

**Gary Baigent**

October 4, 2016

Tony, I've never had experience with near horizontal foils on or near the surface, like that upper foil. This flat foil is an experiment, the intention being that with its high angle of attack, will bounce the leeward float up if buried from overpowering wind. The lower and larger foil will do the majority of the work, pretty much the same as on my other foiler Sid. Today I epoxy attached the float after extensions and will fair them in tomorrow, except looks like we're into a blow arriving. Also carried the D mast out and lashed it across the platform; looks slightly lethal.

**Tony**

October 4, 2016

Hi Gary, thanks for the reply. I see your foil logic and get where you are coming from. Did you do any calcs on the lift being generated and the energy change from air to water for the foil? I have a little concern with it being high attack angle and flat that when suddenly immersed it may snap, heck of a lot of energy focused into a smallish area very quickly. Would like like he to discuss a progressive foil concept that is fully incorporated into the hull design with you sometime but this is probably not the right place to do so. Hope the sailing trials go well and look forward to updates. Very envious of your skill set and time to build these bad ass machines. Again thanks.

**Gary Baigent**

November 18, 2016

Sorry Tony, didn't reply to your questions. Have been enmeshed with another boat, my 5.5 metre Cox's Bay Skimmer, which I gave away a couple of years ago to an enthusiast on Waiheke Island – but he has since acquired a 1902 24 foot New Zealand mulletboat which will take him many months to restore – so he gave the now damaged Skimmer back and sailed it here a couple of weeks ago. So I've been spending time in reparation ... and have done nothing more with Frog.

**Siti**

December 31, 2016

Hello Barry, I agree with Hans Schipper (also dutch!) that you will need some floating ama's.

Hello Tony,

what about the windrider Rave V ?

Any known updates? I am following all news concerning the Rave V because I have had my doubt about the design..

Please, any news is welcome

**Peter Schwarzel**

January 20, 2017

Hi Gary – Well its 2017 and Frog should be going by now! :)

Any news?

Regards Peter S

**Small Tri Guy**

January 21, 2017

Peter, I just received the following message from Gary:

“Frog is just sitting on its mooring because I've been repairing a 5.5metre monohull that I gave away some years ago and it was recently given back to me in a sad and broken state – so it has been fixed – and now I have four boats to look after – which is way too many.”

**Guy**

January 19, 2018

Hi Gary, well it's 2018 and frog should be going by now! :) any news

Regards guy n

**Gary Baigent**

April 14, 2018

Sorry about lateness of information about Frog. I've been sailing it with the Cox's Skimmer's double rig mains, to create the double sided main for Frog. This rig is very make-do and too small for Frog but has given me an indication of how the trifoiler will work. The first change made was to increase the non-existent floats to small existent ones. So I was way off course on the original setup. Frog, even with the small rig sails way better than I expected. The new double main is being built by Bill Barry, a sailmaker willing to take on slightly crazy projects.

# Meeting a Challenge with a Challenger

September 28, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Challenger trimaran

## Comments

**Mark Fletcher**

September 29, 2016

How do - Im a Challenger sailor and Im sure theres a boat or 2 on that side of the pond. I will in a few weeks be taking over the registry but in the meantime Richard Johnson the class chairman might be able to help you find them! Have fun - Theyre great to sail!!

PS have forwarded this article to him

**Small Tri Guy**

September 29, 2016

Thanks Mark :-)

# Aqueous Solution – Tandem Double Outrigger Kayak (Now for Sale)

October 6, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: double outrigger kayak, kayak sail rig, tandem kayak sailboat, Warren Light Craft

No Comments

# SeaRail 19 Trimaran Now with On-the-Water Folding System

October 6, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Searail 19 trimaran

## Comments

**EMONET**

April 3, 2019

super trimaran

i dream to buy one

## Lovely Farrier Trimaran in Maine (for Sale)

October 8, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Farrier trimaran for sale

### Comments

**Thomas Carlisle**

October 18, 2016

Fantastic amount of sail they can put up.

**Geoff**

October 29, 2016

Hello Jen

I am interested in the tramp, looking forward receiving to full details and pics.

**WAYne Hillis**

June 21, 2017

Is the boat still available. We have an F24, thinking about trailering to Maine this summer, (yikes from Florida) ending up in Moosehead Lake for a welcome respite from the summer heat. If you still have it, would you consider renting for a month?

**Matt L.**

June 26, 2017

If the boat is still available I am interested.

**Carl Jeptha**

September 24, 2017

Is this boat still available?

# Little Tri Amid a Netherlands Raid

October 9, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bernd Kohler, Little Tri

No Comments

# Rudi 6.0 Trimaran Almost Ready Down Under

October 18, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: daysailing trimaran, demountable trimaran, Rudi trimaran

## Comments

### Chris

October 18, 2016

Really cool project Aaron! I can see several similarities in my tri I built some month ago. I used A-cat as middel hull and built the other two. Please film some, when you test-sail. Your boat will be great

Here's some data from my boat

[https://cholsson.files.wordpress.com/2016/08/outlaw\\_updated\\_jib.jpg?w=1140](https://cholsson.files.wordpress.com/2016/08/outlaw_updated_jib.jpg?w=1140)

<https://cholsson.files.wordpress.com/2016/09/wp-image-792047826jpg.jpg?w=1140>

br

Chris

### Aaron

October 18, 2016

Thanks Chris, I've watched your videos of the Outlaw tri- you've pulled together a great design mate. I'll be sure to get some more pics and videos to Joe soon. I've just finished painting the amas so hopefully not too far from going in the water!

### Stefano

October 19, 2016

Great design and inspiring to me (love the take apart approach)

I would place a stiffening batten inside the hull and hefty angular reinforcements at the main hull joint and akas insertions.

The speed coupled with torsion forces induced by amas and waves can be destructive.

Looking forward to the launch and sail reports...

Stefano

### Aaron de Ruiter

October 19, 2016

Thanks Stefano, I've been spending a lot of time thinking about the aka connections and internal bracing... Do I go with through bolts to reinforced internal braces? Do I use polyester lashings? What do the internals look like? There has been many a late night reading structural engineering design websites and books!

I've decided on lashings for the vaka-aka arrangement, it will take slightly longer to setup the boat than bolts however the distributed loading of the lashings is more desirable.

One of my design considerations is the internal structure needs to be sufficient enough to resist the dynamic sailing forces while still allowing at least 2 metres of uninterrupted space for sleeping in the vaka. I'm 185cm tall, a touch over 6ft, so I need the room! The first camp-sailing adventure is going to be so sweet.

The main hull has solid support (and built in buoyancy) from the EPS foam and 3 layers of fibreglass in the bottom hull structure, I'm anticipating this eliminates the need for longitudinal stringers. However if it becomes apparent they are needed it will be simple enough to install at a later day.

### Stefano

October 20, 2016

Hello Aaron.

vaka-aka beams. My small tri has through-hull sliding beams. They are not connected, only stayed to Vaka to contrast upwards motion of amas.

Amas are lashed, but a centering position is given by one bolt to avoid having them sliding out of position ( it happens when they "toe out").

Longitudinal stringers. in my view, making them before is much better than finsing out you need them through structural failure, even with partial. I'm speaking out of experience because my littel tri bears 12 sq metres of canvas + 14 sq m of gennaker... quite a bit on 5 metres boat.

Furthermore, the stringers are useful to place an horizontal surface for a berth. In this way this acts as a wonderful anti torsion structural member by creating a giant box beam.

Beware that Franks' tris mostly navigate closed bay waters... little waves if any.

I would give an eye also to the box structure of Strike 16 and 18 tris... It allows two ample berths and helps in the way of reinforcing the ama-aka connection. I would however make it less "boxy" for the eye.

I have a take apart large kayak 6.6 metres with two sails. I use 10 8 mm SS bolts, set on coupled frames 12 mm thick doubled with a wooden flange all around, 90° knees at the top, and 2 biaxial strips of cloth on a radiused fillet.

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Believe me, the boat did not squeek once even with loaded with 200 kgs and 4 ft waves, some breaking.

I believe those scantlings are adequate for a take apart 60 cm width trimaran.

best luck, Stefano



# Searunner 25 Trimaran Restoration Continues in Minnesota

October 21, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Jim Brown, Searunner 25 trimaran

## Comments

**Greg**

October 25, 2016

Hi John,

Nice work your boat looks great I am finely going to cut in a hatch in the aft cabin of my 25er because it's a pain to cook bent over. Do you have any ideas or photos you could share?

**John Ebert**

October 30, 2016

Hi Greg. My 'kitchen' is in the fore cabin, for some reason the builder preferred that (it is a bit larger there.) I like your idea to have a hatch, it would be nice also for letting in sunshine to the aft cabin and fresh breeze. Since this is the first time I have considered the idea, I have no immediate suggestions except make sure it is water-tight and strong when closed! I presume the best way would try to preserve the original cabin function but permit full step down access when open, like a 'gull-wing' sort of approach, like the aft wet hatch on my boat.

**Colleen Leonard**

June 17, 2020

Is your boat still for sale?

# Potential Buyer Inquiring about Cross Multihulls

October 27, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Cross Multihulls, Norm Cross

## Comments

**Owen McKenzie**

October 27, 2016

If he has Facebook request to join the Classic Multihulls group I believe Jeff is a member there.

**Small Tri Guy**

October 27, 2016

Thank you for the potential lead Owen!

**David Villarroel**

December 2, 2016

I am interested in the Cross plans to build one trimaran

# Threefold 6 Trimaran Project in Michigan

October 27, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Dudley Dix, Threefold 6

No Comments

# Piver Nugget Trimaran for Sale in California

November 3, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Piver Nugget Trimaran

## Comments

**Rich**

November 17, 2022

Of oi, also built a nuisance,too, built a nugget I Santa Cruz and sailed it to omexigo

## Australia Dealer for WindRider International (Press Release)

November 3, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Windrider Trimarans

### Comments

**MichAil Panou**

November 3, 2016

I am interesting to by a wind rider or a weta used.

Please let me know the conditions of the boat price fix in Greece.

**Small Tri Guy**

November 3, 2016

Hi MichAil,

You need to contact both Windrider and Weta directly. Check each one out at <http://www.windrider.com> and <http://www.wetamarine.com>

**Tony W**

November 7, 2016

Hi Gavin. Tony W Bazooka sailor here. Need to get down your way and have a sail sometime soon. Would love to see the WR17 once you have it.

**Bil Hackmann**

February 19, 2017

Hi Gavin,

I am a sailor on lake Macquarie nsw. Own 25 ft mono, and small French triac. Lake Mac is the largest salt water lake in southern hemisphere. We have very few trimarans here. The windrider 17 and astus tris need exposure here.

Would like to introduce the windrider 17 to the area selling my Sheerline 25. I am keen on astus with small cabin – bit expensive. Going to moore the tri. Interested in demo tri perhaps large add on sails Live on waterfront ... easy to display windrider 17 on beach maybe for demo sail for clients. Please contact me, in regards to my proposal. Regards, Bil Hackmann, Summerland Point nsw. Phone 0249763922 ,mob 0415819162 Google lake Macquarie. It covers an area of 110 square km.

# Owner-Designed Taenga 16 Trimaran in France

November 3, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Taenga 16 Trimaran

## Comments

**Hans Schipper**

November 3, 2016

A great looking small boat! Beautiful recycling project. I'm looking forward to your sailing experience. What was your idea behind making the centre hull shorter? It might give a loss of speed. You could not use the rig of the Prindle 18?

The hulls of the KL 14 have a beautiful shape. Now I'm sure that I have used hulls of a KL10 for my triple A trimaran(I did not know before).

Have a lot of fun with it.

**Small Tri Guy**

November 3, 2016

Jacques speaks French ... he may not reply to our questions. (I had to use Google translate to extract his info). Just wanted to let everyone know.

# Meet Meermark Double Outrigger Canoes

November 10, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Double Outrigger Canoes, Meermark, Meermark Canoe

## Comments

### Andrew Boulter

November 10, 2016

Thanks for bringing this to our attention. Quite good looking tri. Sort of like a tri Topper!

### Hans

November 10, 2016

It's designed by Kurt Hughes.

<http://multihullblog.com/2016/09/resort-trimaran/>

I like the no-frills approach. Not sure if it has a shallow fin/keel like the Windrider 16 and 17. Such a keel is really unpractical for dragging the boat up on a beach.

Cheers, Hans

### Small Tri Guy

November 10, 2016

Great additional info Hans!

Terrific. I may add the link you've just shared as an "update" on this post. Thanks for taking time to share it.

### Robert

November 15, 2016

It seems similar to the Hobie A1 but with enclosed cockpit and more freeboard. One could probably put a tramp on it too. I am curious about the weight. Robert

### W Hackmann .

November 23, 2016

Hi guys ,i am a newcomer to this forum . Live in australia on Lake Macquarie . own a 25 foot mono hull yacht ,but love sailing my little french triac . Interested in the meermark tri . is there any pricing available and other data . Love to hear some more on the tri . Regards Bill Hackmann .

### Small Tri Guy

November 23, 2016

Hi Bill,

The only info we've got is posted here. If I can get an update from the guys who are producing the Meermark then I'll feature that new info in a new post. In the meantime, we welcome anyone else to post additional info here in the comments area.

### Tony W

December 5, 2016

Hi Bill. I contacted Meermark some months back and got some indicative pricing. They are around 80% of the cost of a WR17. For that I would rather a small Bazooka Trip from NZ or stretch to the WR17. I sail the Bazooka and love it. Very versatile little tri. Grew up in Newcastle so for where you are the Bazooka would be an awesome little adventure machine.

### Tony Watermann

January 23, 2017

They seem to be trying to market these and sell through eBay. You can find for sale here <http://www.ebay.com/itm/Meermark-M17-2-Person-Sailing-Trimaran-Production-Models-uncrated-for-photos-/182425494403?forcerrptr=true&hash=item2a79682383:g:XEQAAOSw4shX9R5M&item=182425494403>

I like a lot of aspects of this boat but note that all imaging so far only shows on calm flatter waters. Would hate to be stuck in the hull if you managed to flip it in less calm conditions.

Still I think I much prefer my Bazooka for rougher conditions, had a near flip over Christmas as we where jibbing and got caught by a random big wave. Not being locked into a cockpit I was able to launch myself across to the lifting side which averted the flip. Don't imagine that I could do so quite as easily in this boat.

### Thomas

January 25, 2017

Hi Tony and thanks for your interest in our M17s! Take a look at some of the videos on our website for a better idea of how they sail when the wind picks up. I've spent many an afternoon sailing past flipped over cats with my daughter in the back seat having a blast. (Of course we always check to see if they need assistance)

We do have a couple of pre-production units on eBay, which really only differ in that they lack production graphics on the hulls. Moving forward all sales will go over our website and directly through us. (unless we suddenly sell a ton through eBay)

I've forwarded some additional info to Joe which he'll likely post in the coming week, so stay tuned.

In the meantime, enjoy time out on your Bazooka. I haven't had the pleasure of sailing one, but it also sounds like a great boat!

# Modifying the Triple A Trimaran with a Finn

November 17, 2016

Categories: Small Tri Info - All

Tags: Triple A Trimaran

## Comments

**Guy**

August 28, 2017

These seem to be the style of foil Bernd K pioneered the design and use of (and designer Richard Woods criticised as snake oil.)



# Windrider Option for Disabled Sailors

November 17, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: windrider trimaran disabled sailing

No Comments

# Predator Trimaran Molds Available for FREE

November 18, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Predator Trimaran

## Comments

**Glenn**

February 26, 2018

Did anyone ever pick up these molds?

**Small Tri Guy**

February 26, 2018

Did you try emailing Paul? His email address is listed in the above.

**Definition**

May 5, 2019

Hello:

My position is in Taiwan, and I'm interested in getting those moulds, and if you're interested, maybe you can open a factory for sale.

# Seaclipper 10 Sail Trials in Norway

November 24, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: John Marples, seaclipper 10 trimaran

No Comments

# Winter Wonderland Sailing

December 11, 2016

Categories: Small Tri Info - All

Tags: winter sailing gear

No Comments

# SeaPearl Trimaran Looking for a New Home

December 15, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: marine concepts seapearl, Sea Pearl sailboat, seapearl boat, seapearl trimaran

## Comments

**Robert Laechelin**

April 26, 2018

Just saw this and the Craigslist ad has expired. Do you know if this boat has been sold?

**Small Tri Guy**

April 26, 2018

Not sure Robert. I am guessing that is has.

**Ralph Grimaldi.**

November 7, 2019

Looking for a well maintained Sea Pearl trimaran. I live in South Florida.

# DC-3 Trimaran Building Progress

December 16, 2016

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: DC-3 Trimaran, John Marples

## Comments

**Geowhiz**

March 21, 2017

Nice work

**Abel**

June 5, 2017

Very nice and very inspiring!thanks for taking the time to share your build with us all. I look forward to seeing more as it progresses.

**Dom G**

February 14, 2020

Thanks for sharing this. I was wondering how the project is going ?

# Short Summary of Several Commercial Trimarans

December 22, 2016

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: windcheck magazine

## Comments

**Aaron**

December 22, 2016

Thanks Joe, any more recent information? This article is from 2013.

**Small Tri Guy**

December 22, 2016

Hi Aaron. I'd say the general descriptions of the boats would be the same today as they were in 2013 ... except for the UltraLight 20 (from Warren Light Craft). I heard Warren Light Craft may be out of business now, but am not sure. I tried contacting them several times, a few months ago, but got no reply. If anyone has any additional info about them we'd love to know.

**Walter**

December 23, 2016

The Weta has since been updated as per [https://en.wikipedia.org/wiki/Weta\\_Trimaran#2015\\_Weta](https://en.wikipedia.org/wiki/Weta_Trimaran#2015_Weta)

**Small Tri Guy**

December 23, 2016

Thanks for that link Walter!

# Vantage 475T Trimaran Under Construction

January 5, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Vantage 475T Trimaran

## Comments

**Robert**

January 6, 2017

It is interesting to start with a boat with a hull designed to plane. When you build your vaka from scratch will you go for a hull that planes? Robert

**Algie Bennett**

January 7, 2017

Yes the plan is to replicate the outline dimensions of the ISO hull making changes so that the internal frame is completely integrated.

I can then sail it as either a dinghy, add small wings for extra righting moment or add one or two floots for whatever sort of sailing I want.

I sail with my wife who is very small and 54kg but also with some friends occasionally who are more like 100+kg so need something with some ability to cope with different demands.

I will also be making a demountable forward deck so if I want to go on longer treks I have somewhere to stow some bits and bobs – not just dry bags lashed on.

I am treating it kind of like a skiff with very safe training wheels while we practice our trapeze and spinnaker skills.



# TriRaid 560 S Trimaran – New Variation

January 12, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Klaus Metz, Roger Mann, TriRaid 560 S Trimaran

## Comments

### **Robert**

January 18, 2017

I live in Pacific Northwest and share your vision of a light hybrid drive (sail plus)trimaran that can be beached like a kayak for island camping. Tidal excursions are significant above 49 degrees. I know the TriRaid was designed to be light. Have you thought about the challenges of beaching and relaunching across the intertidal zone?

Robert

### **Tom Rough**

January 28, 2017

Dear Bob,

Yeah, the muck and oyster beds are a major downer at low tide. The whole thing comes apart in the event you have to extricate yourself from the flats or lower it down from a precipice to re-launch. No sea trials yet, and we are still hoping for the best.

### **Chuck Gabriel**

August 22, 2018

Update??

### **Small Tri Guy**

August 22, 2018

I never got an update on this one Chuck. I want to see it in the water too!

### **Wally Daniels**

January 27, 2019

I appreciate the criteria for this small trimaran and would enjoy seeing the completed project. Kudos.

### **Tom Rough**

November 12, 2020

Hey, folks! Thanks for your interest. The project has been in limbo for some time, but there is new hope . The thing is 90 percent done, and someone has come forward to cut the sails. I apologize for the suspense.

### **John R Duggar**

January 28, 2022

Not a peep out of you for 14 months...whassup?

# Self-Made Snipe Hobie Trimaran

January 23, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: snipe hobie trimaran

## Comments

**Robert**

January 24, 2017

I like the simplicity. Curious about the akas. Looks like you doubled them up and they are horizontal. Am I correct? Robert

**bob paine**

January 26, 2017

The 1" x 8" is pretty flimsy but is really more for a platform. (Also put some pads under it to protect the deck.) The 1" x 6" (really a 5/4" deck plank) is on top of the 1 x 8 and is much sturdier. Then a couple 2" x 6" s on the ends to keep the amas from rotating. One bolt on each side to hold them together. Choked the akas with rope and winched underneath. Sailed about 6 times and is very stable. (This is our best sailing season here now.) Really like getting rid of the heavy metal daggerboard. Replaced it with light 1/4" plywood with epoxy and has been functional. Entire extra weight for the modification is probably less than second person (and don't have to work around their schedule).

**Tom Henry**

January 27, 2017

Hi , nice project – looks very good all around!

Not familiar with the term “choked the amas with rope” would you be so kind as to describe this in different terms – and maybe describe just where exactly the “rope” goes – from – and – to.

Thanks for posting this.

**Bob Paine**

January 29, 2017

Just wrap a rope around each side of the akas (at each side of the hull) so you can clip the hooks from a winch that runs underneath the boat. Then just ratchet to tighten enough to keep the akas from sliding. I also put some pads under the akas (from some old life jackets) to protect the deck and keep the akas from sliding. It is surprisingly very stable. I also put some hose clamps on the hobie posts to keep the akas from coming off. I already had the Snipe (that I bought for \$1000 with the trailer). The modification costs less than \$200 (although not as pretty as the Astus). The whole thing can be set up and broken down in a few minutes (just untie the ropes (that are used as the choker) and the whole rig slips right off over the boat. Then the akas can be removed from the amas by just loosening he clamps and taken off. I could then throw the whole thing on the trailer without even taking the akas apart (however this would only involve removing 4 bolts); however, I really don't plan on going anywhere since it is in the lake right in front of my house.

**bob paine**

February 19, 2017

Took her out yesterday and got caught in a squall. She held her own very nicely (after lowering the jib and no reef in the main). I am quite certain that the snipe by itself (at least by myself) would have been turtled. The akas held up to the waves (although I was thinking I would coat them with epoxy if I had to sail like this every day).

**jmkarski@gmail.com**

March 23, 2017

Hi Bob,

I would appreciate more detailed photos . Can I use hull of Laser to do the same?

**Small Tri Guy**

March 23, 2017

I'd think so as long as their length is appropriate to the size of the center hull they'll be supporting.

**bob paine**

April 2, 2017

JM: I really can't say. I had a laser for a couple years and I'm not sure if the sail could pull the boat. However, I really don't know since I am not an engineer-just an attorney and only an average one at that. But I think the hull of the laser would be a little to low to the water. This company called sailboats to go has a little outrigger device that it probably the easiest and cheapest way to go for the Laser. This guy actually answers his own phone and will be able to tell you if his device will work on the Laser. I'll get you some better photos.

**bob paine**

April 3, 2017

JM: On further thought, I agree with Small Tri Guy. I think it might work. I don't see a lot of downside. The planks should mount the same way on top of the hull (just put some cushions from an old pfd between the planks and hull) and would cut some holes in the end to fit on the hobie posts (a couple 5/4" x 6' x 12' planks-these will easily withstand any wind that mother nature will throw at you-and if you are going to the terrible twenties, add a third plank). Choke the planks with some decent nylon rope and run your winches underneath the boat from side to side. (Plus you get to move side to side like real sailing and not locked in position like a kayak or canoe). And you can probably sail the beast in any wind you like (since it can't be reefed anyway). Some of these guys are darn near giving away the 14' amas to come get them off their property (to keep the wife happy). The expense of the conversion is negligible. However, if it doesn't work out and you prefer to swim, you can still sail your laser.

**Paul**

May 26, 2017

She's a beauty! Time to throw some trampolines on and hike out :)

**Bob Paine**

June 7, 2017

Thanks, Paul. Spoken like a true dinghy sailor! I honestly expected her to run like a nag; however, she can get up and move like a little filly when she wants to. But even after replacing the 30lb. metal daggerboard with a 1/4" piece of plywood of negligible weight, I was able to remove the hiking straps. In essence, I don't see getting wet anytime soon in this boat. However, if I get the crazy, wild-thing, dinghy sailor urge to hike out and/or swim (again)-and I'm not a bad swimmer (gators notwithstanding)- I still have Hobie 14 and a Snipe to sail, and that ain't all bad.

**Rick**

June 22, 2017

Hi Bob,

I have a 14' Catalina Capri. My wife and daughter are not happy with the leaning. We even capsized backwards once. I have the skills to build the outriggers. And it sounds like fun. The one question I have at this point is how deep are the outriggers? Are the bottom of the outriggers at the draft line, above, or below? I'm thinking flat bottomed for my outriggers. Any objections there?

Thanks,

Rick

**Bob Paine**

June 22, 2017

Rick: I don't have the skill to build them, but I either was extremely lucky or Providence prevailed; however, the hobie 14 amas matched up beautifully with the snipe. In fact, they matched so well that I am wondering how I even was able to sail the snipe without them. I think you can play with the draft by simply deciding how to mount the boards. I put the 2" x 6" boards (just on the ends beneath the amas that were more or less spacers) below the amas and the waterlines matched up very well. Honestly, I did not have a clue how it would work until I started toying with it. However, since you are able to build them yourself, I think you could always just add some boards as spacers on the ends if necessary.

**Rick**

June 23, 2017

Thanks Bob. I'm thinking maybe uprights on the outriggers with slots to adjust the level on a fixed horizontal beam. That way I don't add weight that I might never take back off.

Happy sailing.

**Bob Paine**

June 24, 2017

I agree. I am by no means an expert; however, with the sail plan on that boat, I think you are smart to build the amas yourself, thereby shaving some weight off. I believe the hobie 14 amas are around 70 lbs. each which may be too heavy for that sail plan. As for me, I'm willing to give up a little speed for the added peace of mind of not having the whole police squad and fire department on my lake bank after some passerby on their cell phone (who thinks they are helping) calls 911 before I have time to right her.

# More on the Meermark M17 Double Outrigger Sailing Canoe

January 27, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: double outrigger sailing canoe, Meermark, Meermark Canoe, Meermark sailing canoe

## Comments

### **Tony W**

January 30, 2017

I really like their simplicity approach. I own 2 Bazooka trimarans for the exact reasons they outline, simplicity.

I think the meet a r kid is a pretty good looking boat, and reasonably cost effective. It's main advantage over the Bazooka is that of durability with plastic hulls. However the fibreglass Bazooka is very easy to repair.

I also think that the Bazooka offers a bit more versatility in it's setup.

Still this is a nice little machine that looks like it will perform well and appeal to many. Only thing I'm curious about is how well it will go to windward without any traction?

The Bazooka has a couple of side flutes or skegs that help it grab into the water and sails well into wind. Down side though is that they also give strong directional stability and can make tacking very difficult.

### **John Troge**

March 13, 2017

Hi Joe,

I've owned 4 Windriders over the years, 2 16's and 2 17's. I still have a 17. I loved the simplicity of the 16 and prefer the cat rig over the sloop but the 16 didn't have enough room to pack much for camping trips. It looks like the Meermark could solve my problem. Any idea of price or availability in the U.S.?

### **Small Tri Guy**

March 13, 2017

Hi John,

I wouldn't hesitate to contact Thomas Meer via the Meermark website ... he will gladly answer any question you may have about this boat.

Joe

### **Donna**

January 8, 2018

Looking for a double outrigger canoe with two sitter ..money is a little tight...I luv to fish n hubby loves to just go...he moves a lot so this is why we prefer an double outrigger canoe

### **Small Tri Guy**

January 8, 2018

Hi Donna,

If you want a commercially made boat in the U.S. then perhaps contact a Meermark dealer via their website at Meermark.com or perhaps a Windrider rep at Windrider.com

# Seaclipper 10 Trimaran in Pennsylvania

February 2, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: John Marples, seaclipper 10 trimaran, Seaclipper trimaran

## Comments

### **Don Kerr**

February 2, 2017

Congratulations North East Small Craft. Looks great, think I can get a ride this Spring?

### **Jerry Culik**

February 8, 2017

Thanks, Don. Regarding a ride, as soon as we get some some warm weather! Once you get in, you'll feel like you're back in your canoe.

### **Craig Duncan**

March 14, 2017

Jerry,

Congrats on getting the boat on the water.

I am currently building a Seaclipper 10. I am curious if you have been out when the wind dies. I have been trying to figure out what I will use as alternate propulsion when the wind dies.

### **Adam**

April 13, 2017

I'm excited to see that somebody is sailing a sea clipper in the Chesapeake. I've been thinking about building a Seaclipper 20. Currently I'm sailing a Hobie Adventure Island, and I love it, but I want something I can take a friend or 2 out for a day, or maybe do some camping aboard. I sail out of Rock Hall, I'll be keeping my eye out for Kubota Orange!

### **Jerry Culik**

May 29, 2017

Hi Craig,

Good to hear that more Seaclippers are on the way. I carried a small paddle in the boat — just in case. The wind was very light and variable when we were sailing, and we managed to get back to shore before things died completely, so we didn't need to use it much. Try "wagging" the rudder for short distances.

Adam, also look for a blue Potter 15 around the Chester, Wye and Miles this summer — that would be me! Don is building a SC16. Sounds like a tribe is forming up.

### **Small Tri Guy**

May 29, 2017

Hi Jerry,

You are close to where I live man ... I'd love to come and visit you on the water this summer :-)

### **Jim Marx**

August 24, 2017

I just bought a seaclipper 10 ft. needs some rework but look for it on Mission Bay San Diego soon. It was built with skill and heart...just not stored very well. Can I just strip the old expose wood and deck for reglassing? Comments...?

### **Small Tri Guy**

August 24, 2017

Jim,

Yes, you can do that as long as the original wood isn't rotted out or damaged in some other way. You should be able to sand down the glass to the original plywood and then re-glass / epoxy, etc.

# From Finn Dinghies to Small Trimarans

February 9, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Finn Dinghy Trimaran

## Comments

**hans Schipper**

February 14, 2017

I like the simple way you "expanded" the boat and made a nice place for the motor. Great job for less money!

**Jarda S.**

February 14, 2017

Hi Hans,

thank you for your comment.

The offset between the rudder and propeller is necessary because of the collision possibility. The boat stern is really narrow.

I wish you pleasant incoming 2017 sailing season.

Do you have any trimaran too?

Jarda S.

**Small Tri Guy**

February 14, 2017

Jarda,

Here is a collection of posts featuring Hans' trimarans - <http://smalltrimarans.com/blog/?s=Hans+Schipper>

**ian**

February 22, 2017

Both boats are very impressive conversions and the stretching of the hull(s) flows beautifully and looks like it was always that way, which is never a simple task.

But I absolutely *love* the first version with the raised deck because the classic small yacht proportions and the materials and the rig and even the paint colors all work together to make it look like the entire boat was built back when the Finn was a new design in the early 50's, almost like a chubbier cruising version of Victor Tchetchet's early tris or a sleeker multihull version of the West Wight Potter pocket cruisers.

Had I not heard the back story I would have never known it wasn't a 60+ year old build of an original mid 20th century design. Had there not been a human in the pictures of it for scale, I would never have known that it wasn't twice the size of a stock Finn...

It is just a gorgeous little classic yacht and all the more amazing for having been adapted from a completely different type of classic sailboat that is heavily modified. Great work!

Was the final modified length of the main hull on the first version the same as the new boat? Also did the crew/cockpit location need to change on either version to adjust for the extra weight of the deck and cabin and other modifications?

**Jarda**

February 24, 2017

Hi Ian

Thank you very much for your comments to my small trimarans design.

My first plan was quite simple. I tried to build a small boat, something like a „tent on the water“.

Because I wanted to have two berths inside, so I had to put the lower bearing of the mast about 80 centimetres above. But this changes makes the ship a bit unstable, so I used two amas and created the trimaran.

After a time I discovered some mistakes and I wanted to remake it, but I recognised that to do a new ship will be less cumbersome.

The most important to me is easier handling during the amas unfolding / folding. On the lakes is important to have the folding mast.

My new boat is only about 20 centimeters longer than the first one. The FINN original hull have been reinforced by epoxy laminate and in the point of attachment of the deckhouse is reinforced by wooden battens.

I wish you a lot of pleasure while sailing on your little trimaran.

(I apologize to the potential readers for my bad English...)

Jarda

# Mini-Hydroptere Foiling Trimaran

February 16, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Hydropter trimaran, mini Hydropter trimaran

## Comments

**David Larson**

February 16, 2017

I'm curious whether you know the source of the water/spray from the starboard float at around 3'55" to 4'02" in the Hydroptère video

Thanks

Dave

**Small Tri Guy**

February 16, 2017

Great question. Is the speed of the boat is so high that any spray in the air around the ama is being drained off it when it hits the foil?

Or is some of the water running directly past the foil (as it touches the water) actually running up under ama at the point where the foil is attached?

Perhaps another reader here knows.

**Jim Gallant**

February 17, 2017

They have water ballast. I suspect that's where that water's from.

**Paul**

May 26, 2017

I love the foil retraction system. I'm trying to build a "windsurfmaran" this summer that ultimately will have a foil system similar to the L'Hydroptere, without the t-foil control, though.. :/ Supposedly t-foils have to be controlled? I guess if not you just keep rising out of the water the faster you go.

**Robert Jones**

October 11, 2017

Jim,

I have a Triak that I have been messing around with for beach camping and am planning to replace the aka/ama assembly. The original Triak had a foil on the amas but the more recent incarnation just went with higher volume amas. I've thought about adding a foil to my home-made aka. So I would love to see the results when you are further along (I live in Seattle).

# Self-Built H19 Trimaran (Hobie Modification)

February 23, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: H19 trimaran, Hobie small trimaran

## Comments

**Chris**

February 23, 2017

That looks like a HOBIE 18. Did they ever make a 19?

**Small Tri Guy**

February 23, 2017

Hi Chris,

There was a model called the "Miracle 20." It was 19-feet 6 inches long. Perhaps this is that?

**Jerry Culik**

February 23, 2017

Beautiful work, Bill. I will be interested to see how you handle the crossbeams. We're getting record highs down here in PA — spring is almost here!

**Bill K**

February 24, 2017

Chris, You are right. I got lost in the details. Sorry.

Jerry, Haven't decided if I will lash or bolt the crossarms yet. Lashing with multiple raps of 1/4 or 5/16 nylon would give a little cushion. They will lie in the yokes on the platform. The yokes are difficult to see in the pictures. The amas I will bolt at a slight angle.

**John Bartlett**

February 25, 2017

Hi bill, I do know someone looking for rhodes 19 if centerboard. I have one and he likes them, thanks john

**bill kennedy**

February 28, 2017

Sorry John, but, this boat is a keel version. It is reported to be the second of 10 boats built by Marscot Plastics in New Bedford, Mass. in the 1950's.

<http://rhodes19.org/class-association/class-history/>

This link explains the history of R19's.

They are fun to sail, but, my tri should be even more fun.

**Eric**

December 27, 2022

Hi,

Am assuming boat is finished.

Interested in follow-up on her.

You can contact me via Facebook Messaging or email: ejspoms AT gmail

Thanks.



# Meermark M17 Double Outrigger Sailing Canoe Specs

February 25, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Meermark, Meermark Canoe, Meermark sailing canoe

## Comments

**Robert Cornwell**

February 27, 2017

Looks like a nice boat. what do they use for lateral resistance? A dagger board? a centerboard?

**Thomas**

February 28, 2017

Hi Robert

Great question!

We've chosen to address lateral resistance through the design of the main hull and outriggers, rather than having a dagger board or centerboard.

While having a dagger board or centerboard would certainly provide more lateral resistance we are very happy with the performance utilizing the hull & outrigger designs.

We've always been about user friendly performance, the ability to sail in shallow waters, ability to run your M17 up on a beach or gravelly shore, ease of transportation and most of all, simplicity!

All the best,

Thomas

**Carlos Albornett**

March 1, 2017

Hello my friend! whats the maximun speed done by this sail boat? Could it be used for off shore sailing? Does it come with all accesories ready to sail? Price? Thanks!!!

**Small Tri Guy**

March 1, 2017

Hi Carlos,

You'll want to contact Meermark via their website ([www.meermark.com](http://www.meermark.com)) to find out those details.

# Double Outrigger Sailing Canoe in Tahiti

March 2, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: sailing canoe in Tahiti

## Comments

**Stefano**

March 5, 2017

Neat boat. It takes many features from Hawaian outrigger canoes. Namely the lashed amas that ar set in place on wooden plugs protruding from the amas.

These ones look as they are different one another. On the left like it were roughed out of styrofoam and then covered with glass. One on the right, looks molded fibreglass, has straighter curves and is hollow (hole and white plug on top).

I I were to guss, this is a decked-over Hawaian 2-3 place canoe meant to sail with just one outrigger and that was doubled as atrimaran and decked for safer passages in open sea and added stiffness. Just my guess but there are several hints in the pics that suggest it.

# How to Scull a Multihull

March 2, 2017

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: scull boat, sculling, sculling mulihull, sculling trimaran. scull trimaran

## Comments

**Stefano**

March 5, 2017

Very impressive video, especially the backwards motion.

Years ago I built a much more substantial Yuloh, which is a bent oar, with a long flat blade and only one convex surface at the blad, whiule the other is flat.

It also has a rope keeping it at the right angle and preventing the oar from digging too deep in the water. This is the ingenuity of the chinese: the bit of rope is crucial. I pushed my 7.2 metre trimaran by 800 kgs + 2 people at steady 2.8 gps measured knots.

The oar was made bent just by laminating 4 layers of 15 mm european white fir wood with epoxy. The bend is compulsory on a big boat or you would have to climb on a ladder to reach the sculling end. Length is cut to size so to have the blade rest in the water fully when in idle mode. Must add that mine moved horizontally rather than vertically sideways in 8 figures.

I think that for the blade 3 mm ply could be used in your case, folding the sides over the pole.

**Hans van der Zijpp**

March 6, 2017

Hi stefano,

A blade could (maybe) be made of plywood, but then you would miss the advantages of plastic sheet : No epoxywork, no painting, doesn't scratch the hull, cheap, and most of all the possibility of bending the leading edge in one fair curve.

Also from building plywood foils I know that bending the plywood around the relatively thick surfmast will be difficult.

The speed you got with your Yuloh is impressive ! If I scull at a normal/easy pace I go about 2.2 knots (without wind resistance), I can go quicker but that takes a lot more effort proportionally.

Regards, Hans

**Stefano**

March 6, 2017

Dear Hans,

I guess the speed has much to do with hull speed too. @7.2 metres and very narrow, the hull was easily driven. I also had a very substantial yuloh oar, and the motion was more horizontal as said. It was close to 4 metres and close to this one, but for the lashings :

<http://timloftusboatbuilding.blogspot.it/2012/03/yuloh-or-ro.html>

Looking around on the internet I also learned how to scull while standing using both leg and back power and weight. I had found pictures on the "ro sculling" that cannot find now.

**Tony**

March 28, 2017

I've always just used a regular oar with a rowlock fitted to the transom of my dinghy. Easier than rowing and same speed.

# Unique, Semi-Hydrofoil Trimaran (Giveaway)

March 12, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Hydrofoil Sailing Trimaran, hydrofoil trimaran

## Comments

**Thomas Henry**

March 12, 2017

Fabulous!

Nice piece of work there, Roger. Very nice.

Likely speaking for many others when I wish there were pics of the boat sailing up on foils.

Here's hoping that the new owner will get here flying and provide the SmallTrimarans.com readers with some joyful moments.

All the best.

Tom

Salem, MA

**John Wright**

March 13, 2017

Very impressed and very interesting! I am planning to do something based on the same concept. Too far for an old man to drive. Wish I had some data/dimensions of this most impressive craft.

**Wolf**

March 13, 2017

Hi - woulderfull little thing you build there - i am a bit too far away to "win" this nice price (i live in france) but some info (lenght width size of floaters sailplan)because i have the time the tools and the place to build one like that.All i need is a plan that works - thank you - wolf

**Roger Saunders**

March 13, 2017

Some more details for you enthusiasts:

The hull is 16'long with a 3' beam, with a 4' x 2' cockpit, and it weighs about 50 lb.

The amas/hydrofoil assembly is 13' wide and weighs about 50 lb. The 4' long tapered foils are aluminum stressed skin with a foam core, as is the rudder. The amas are fiberglass covered Styrofoam.

The aluminum mast is 24 1/2' long with a tapered wood tip and the aluminum boom is 10 1/2' long.

**Frank**

March 13, 2017

Nice idea, and I'd love to have it. But that's a big drive from Florida.

**Chris**

March 13, 2017

What strength of wind does it need to get up on the foils?

**Roger Saunders**

March 13, 2017

That's a good question Chris. My recollection is that in around 6 to 8 knots of breeze I would lower the foils, bear off onto a reach, hike out in the trapeze and fly.

**Chris**

March 15, 2017

Is the main hull something that you built specifically for this project or is it something scavenged? It appears to me that it could be a rowing wherry of some sort. Also is the 24' mast stayed or free standing and how long is the wooden tip and is that easily removable for transport?

**Small Tri Guy**

March 15, 2017

Hi Chris,

I am not sure how often Roger will be checking this post. You may want to contact him directly via his phone number (while it is still listed) for the answers to your questions.

I'll be de-listing his phone number after the boat is given away.

**Roger Saunders**

March 16, 2017

Hi Chris,

The hull was very specifically designed and built for this purpose. In fact I built a scale model and tank tested it at MIT.

The mast is stayed, and the wooden tip is not readily removable. I carried it in a roof rack that had notches to hold the mast, boom, hull and Hydrofoil/amas assembly.

Feel free to call if you would like more details.

**Chris**

March 16, 2017

Hi Roger, thanks for the additional info. You present an interesting opportunity to get a hands-on experience with a foiling craft. I'm finding it hard to resist.

**Paul**

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

March 17, 2017

What does it have for the rig and sail plan

**Fred Monsonnec**

May 10, 2017

Hi

Fabulous boat!

Fred from France, I have a blog specialized about hydrofoils boats.

I built the same kind of project in the beginning of the 90' :

<https://foils.wordpress.com/tag/pk/>

I would like to know when Roger built his boat?

Thank you in advance

Cheers

Fred

**Paul**

May 15, 2017

Holy crap! I'm thinking of building something almost identical! Very impressed with this work thus far! I REALLY hope whomever received this craft will continue to post information and pictures :)

# Paraw Double Outrigger Sailing Canoe Plans

March 16, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: paraw, paraw canoe, paraw double outrigger, paraw double outrigger canoe, Philippine outrigger canoes, Philippine Outriggers

## Comments

**John Nassr**

October 9, 2018

This is exciting! I am about to build my first small sail boat and the paraw is the best design that fits my purpose. Your site is most helpful and illuminating. Thank you for sharing.

John

# Randy Smyth Wins (Class 5) 2017 Everglades Challenge

March 16, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: 2017 Everglades Challenge, randy smyth

No Comments

# Identify This Trimaran from Down Under?

March 21, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Hedley Nicol, Hedley Nicol trimaran

## Comments

**ian**

March 23, 2017

Hi Daniel,

I wish I could positively ID it but for what it's worth I think it's a pretty safe bet that it's not a Hedley Nicol design... it doesn't look anything like his boats that I have seen, which tended to look more like very low and sleek Pivers more than anything.

His ama bows had a very characteristic extreme rake and overhang that distinguish them from Piver's designs but still mark them as being very much of the mid- 20th century era that spawned those designs-

<http://www.boatdesign.net/forums/multihulls/hedley-nicol-trimaran-plans-31877-17.html>

He did design a 25 footer but it's very Piver-ish-

<http://www.boatdesign.net/forums/attachments/multihulls/69444d1334367493-hedley-nicol-trimaran-plans-clipper-racing.jpg>

Hedley Nicol was lost at sea in 1964 so he never lived to see the days of long sleek amas with knuckle bows on elegantly curved cross members like your boat has, which are more of a late 70's-early 80's thing at the earliest in that kind of configuration.

One possible lead is that there is a Queensland multihull designer named Lex Nicol whose designs are far more in keeping with your boat's modern form and would explain the name confusion...the handful of pics of Lex's designs certainly look more like your boat than any of Hedley's designs that I am familiar with-

<http://www.boatdesign.net/forums/multihulls/lex-nicol-did-he-ever-create-any-stock-plans-32027.html>

<http://www.boatdesign.net/forums/attachments/multihulls/81160d1368151133-saracen-lex-nicol-crt35-saracen.jpg>

here's an article by a guy whose dad owned more than one Lex Nicol design built during a time that also seems to coincide with the approximate age of your boat and its design elements-

<https://thegoatthatwrote.net/2015/06/13/like-a-duck-to-water/>

**Small Tri Guy**

March 23, 2017

Great info Ian!

**John Philip Cadwallader**

March 24, 2017

Not Lex Nicol, I suspect. maybe a one off. Certainly haven't seen it or anything like it before. Cheers. O:)

**Philip**

March 24, 2017

Daniel,

Let me solve your problem. This tri was designed and built by me in the early 1990s. It was my first try at a tri and was meant for my own use but due to circumstances I was forced to sell it after a year or so. At the time I only had a patched up suit of sails on it. The guy who bought it put a new suit of sails on it and sailed it for a couple of years but sold it at which point I lost any knowledge of it. That would be nearly 20 years ago now. I was surprised to see it pop up here and interested to see it still going. I live in the Port Lincoln area and curious to know where you are?

**Small Tri Guy**

March 24, 2017

Ahhhhh ... wonderful. The mystery is solved! Thank you Philip. I hope you connect with Daniel.

**Daniel**

March 25, 2017

Great news!

It was sold to me as a Nichol, but I knew this could not be. I admired the lines and loved it at first sight.

The boat is located in American river, KI. Should be at the mooring

, as soon as I sort out its present little problems.

I would love to know where you got the inspirations/design from and any tit bits of info.

Please contact Joe for my email address if it does not show, as I would love to hear from you.

Sincerely yours,

Daniel

**Small Tri Guy**

March 25, 2017



2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Daniel, Philip ... I will help you guys connect.

**Lex Nicol**

October 22, 2018

Lex Nicol,

No it is NOT one of my designs.

I have often seen photos thereof but no known connections

Regards Lex

**Dave**

October 18, 2019

Wow ..... I just put a \$On this boat in Harvey Bay Queensland .Philip Can you please contact me regarding this beautiful boat .this is actually the first time I've seen it rigged up. This will be my third multihull first one being a tiki 21 a Piver nimble and now this one 0432883273

**Dave**

November 10, 2019

She is now in Hervey Bay .

Photos to come

# Triple A Trimaran with Rowing Flappers

March 21, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: boat scull, foil sculler, multihull scull

## Comments

**Eric Light**

March 22, 2017

Great invention. Now, reverse the seat so that you're facing in the direction you're travelling, and it'll take off! No reason now to be looking where you've been.

**Hans Schipper**

March 23, 2017

I've tried that but it gives too much weight at the backside of the boat. So I stay rowing and sometimes look over my shoulder to see where I go to ;-)

But most of the time I sail.

**Otosj**

March 24, 2017

It looks nice, and obviously the construction between the ama's does make the use of a kayak paddle very difficult, this is a propulsion for the more serious sailing designed trimaran. Any kayak based trimaran is better off with a paddle.

The speed looks somewhat disappointing, but I remember that sculling is more powerful than rowing or paddling. So indeed this is meant for the larger, heavier trimarans instead.

I wonder though how much work it is to change from sailing to sculling and reverse.

**Hans Schipper**

March 25, 2017

The change from rowing to sailing is easy. You take the rowing rods off and put them in a container under the seat and the flapper rods are held together in the inward position with an elastic band. Only the tips of the foil will touch the water.

**Debbie**

March 29, 2017

I think that's a great idea! Will you be selling plans?

**Hans Schipper**

March 30, 2017

I think you can make something like it, looking to the pictures and the youtube video from Ken Kingsbury. It has to fit on your own trimaran or other boat.

# Finger Mullet Trimaran in the EC

March 29, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Finger Mullet trimaran

## Comments

**Rui Gomes Carvalho**

September 5, 2018

Boa tarde

Sou o Rui de Carvalho, vivo em Moita-Lisboa-Portugal.

Estou interessado em construir um trimaran pequeno que me permita acampar.

Vi o Finger Mullet, que me agradou bastante. Agradecia que me informassem onde posso colher mais informação do tri.

Ficando grato pela v/disponibilidade

Com melhores cumprimentos.

Rui Carvalho

**The following is a translation of Rui's above comment:**

Good afternoon

I am Rui de Carvalho, I live in Moita-Lisboa-Portugal.

I'm interested in building a small trimaran that allows me to camp.

I saw Finger Mullet, which pleased me greatly. Thanks for letting me know where I can get more information from the tri.

Grateful for the availability

With best wishes.

Rui Carvalho

**Small Tri Guy**

September 5, 2018

Hi Rui,

I wish we could be of more help here, but I don't know where can get more information about this trimaran. Perhaps someone associated with the Everglades Challenge event might be able to connect you with the owner of this boat.

**Rui Gomes Carvalho**

September 11, 2018

Good afternoon

Many thanks for the reply.

I think the same thing happens with the DALLIANCE built by Ron Falkey, which unfortunately is no longer between us.

I ask: If I ask Facebook in small trimarans, what do you think ?

He knows some designers who have plans for trimarans, with some habitability (camping) up to 17'.

Thanks again for your time.

greetings

Rui Carvalho

# Duckworks Now Offering the Scullmatix

April 12, 2017

Categories: Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Duckworks, Scullmatix

## Comments

**Otosj**

April 12, 2017

This would make a great emergency devise for larger boats in particulaire. Small ones, like my sailing kayak, do have less profit from it as my kayak is light and easy to move with great speed by paddling.

Though, then I need to use both hands . . . If by any case I can use only one hand this is the perfect technique to propel any boat by (one) hand. Small ones, light ones and the large and heavy ones. And one only needs one oar!

Point made: this is excellent.

# New Chryz10 build for 2017

April 13, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Chryz10 Trimaran

## Comments

**Christofer Olsson Kedborn**

April 15, 2017

It does not look possible for test sailing this week. Winter strikes back with snow in Sweden :-)

**Hans Schipper**

April 19, 2017

Hi Chris, It looks great. As if you can sail it in virtual reality! The red stripes makes it even greater. The good thing of the cold weather is that you don't need a ice machine to keep the beer cool!

Make yourself a comfortable chair in it.

The long AMA's will give enough stability and optimal speed I think.

I am very curious about how it sails.

**Christofer Olsson Kedborn**

April 20, 2017

Hans, thanks for your comments. The beers gets colder every day and the ice-bucket never seems to melt. Wheres the spring!? :) Its windy too...

Have built a temporary chair to try out.

Tweaking to stays and tilting of the mast meanwhile.

Here is from yesterday with sails

<https://cholsson.wordpress.com/2017/04/19/race-mode/>

thanks, Chris

**stefano**

April 22, 2017

Hi Chris !

I share every bit of the " 5 minutes from marina to water" goal.

What is the overall weight of this boat? I am still keen on car topping with ease, but my own small tri Nepau, gained weight over years and is now an overall 104 kgs.

Sails look very neat. Are they custom made or adapted? If so, from what sailboats?

I love the instrument panel idea, as I would use mine also for fishing. But then why not install a flexible solar panel ?

Enjoy your beers ...with bears ;-) You must believe in spring.

Stefano

**Christofer Olsson Kedborn**

April 23, 2017

Thanks for comment Stefano. I think the 5 min goal can be reached. I have done lots of smart solutions to avoid "downtime" :-)

The total weight is 120 kg. I could have built it lighter but it takes much more to build with divinycell than some plywood.

The sails where custom made by North Sails for me to an earlier version of my boat. They fit perfect for the new boat as well. The code0 and gennaker however I don't know yet how to raise.

Cheers Chris

**Christofer Olsson Kedborn**

April 27, 2017

Video of the testsailing from yesterday :)

<https://youtu.be/jw3nOTwbKNI>

**Dutchy**

August 18, 2017

Hello Chris,

Love the way you explore everything. I see this new version has longer ama's. This should increase speed. However you sit in the middle of the boat now. Lot's of drag when wind increases...

The solution is Hydrofoils...really !

Ps. Still waiting for a good day to sail mine.

# Photo of SIZZOR's Wing Rig Design

April 26, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Audios, Trimaran Design, Rigging, Construction Info/Links

## Comments

**Tom Williams**

April 29, 2017

dang...I have seen that photo and the one of him rigging to boat before the race, but neither photo shows much detail. Interesting that the mast step is a simple bolt at the bottom of the mast. I want to see pix of the top of the mast and how it can rotate 360 degrees without hitting any rigging

**Wade Tarzia**

May 5, 2017

The stay/shrouds go to the mast head, and the sharp-profile of the head of the sail offers no obstruction to get around them as the sail rotates. This arrangement would only work with a carbon mast, at this scale. I am guessing the trailing-edge sail (the soft-sail attached the rigid leech) might not rotate around easily, but in the reefed condition the soft sail comes off (the only way this thing "reefs") when the going gets tough, and then the rigid part can rotate freely.

**Wade Tarzia**

May 9, 2017

Now that I look at that rig again, seems as though the soft-sail trailing edge component might get under the stays...

## Denmark Trimaran Project (on Craigslist)

May 4, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

### Comments

**Jens Wellejus**

May 12, 2017

Most Danes speak English. Do not hesitate to call the seller if the project has any interest to you. Shipping the lot would probably not cause major issues either.

If I can assist let me know. I live an hour or so from the seller.

## Small Boat Fun in Cedar Key (with Jim Brown)

May 12, 2017

Categories: Small Tri Info - All, Small Trimaran Audios

Tags: cedar key boats, Jim Brown Audio, Jim Brown podcast

### Comments

**Fred**

May 20, 2017

Its been done a couple of times in a tiki 21, the problem with smaller boats attempting this and we know this because people have died is fatigue, I doubt a windrider has made a succesful in season crossing because of the difficulty of getting adequate rest in one. Could be done, a guy made it to within 80 kms of nz from australia in a sea kayak a few years ago before he got seperated from his kayak and sent out an emergency call. Suspected cause fatigue, he drowned.

**Small Tri Guy**

May 20, 2017

So true Fred (regarding the issue of fatigue). I was thinking about how (theoretically) the problem might be addressed if someone wanted to attempt such a thing. I realize one could rest on the tramps, but still, it's hard to imagine getting adequate enough rest to prevent fatigue from eventually setting in. Perhaps a sailor could create a super-light "pod" of some sort in preparation for a trip like this ... that could both shelter them and allow them to stretch out for sleep? I wonder...



# Testing a Quadmaran

May 24, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Bravo catamaran, catamaran to trimaran, Hobie Bravo

## Comments

**Oskar**

June 11, 2017

David could you tell me if you publish somewhere your Quadramaran plans or do you have them for sale ? Please contact me on my e-mail. Regards Oskar

**Small Tri Guy**

June 11, 2017

Hi Oskar,

No, there are no building plans for this boat.

**Lowell**

October 20, 2017

So where is the follow up in what happened . How did it sail? What happened to performance? Please fill in the blanks

# More Paraw Sailing Videos from the Philippines

June 1, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: paraw, paraw double outrigger canoe, paraw outrigger

No Comments

# Quadmaran Success

June 4, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: catamaran to trimaran conversion, Hobie Bravo, quadmaran, small trimaran

No Comments

# Spirit 422 Trimaran Now Available

June 7, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Spirit 422, Spirit 422 Trimaran

No Comments

# Triak Modifications for Bigger Sailing Winds

June 18, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: triak, Triak kayak, Triak sailing kayak

## Comments

**Stefano**

June 25, 2017

maybe the jennaker could benefit from a pulley set on one of the amas, even with loop lacing, rather than direct handling.

Impressive paddle view.

Nice boat and concept... like it and would think of a double along the same lines...

**Fred Coffield**

December 18, 2018

Thom,

I don't find the video describing modifications to the rudder.

Fred

# New Triak Sailing Kayaks

June 22, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: triak, Triak kayak

## Comments

### **Robert**

June 26, 2017

I own a Triak. It has so many positive attributes for colder protected waters. It is a very light-weight well-constructed boat. It fits a certain niche very nicely. And yes it could benefit from some incremental improvements.

### **Andrew**

August 4, 2017

I dearly hope to own one of these fine boats one day soon.

### **David Holmes**

April 23, 2018

I've been contemplating a Hobie tandem islander—but like the Triak better. Is there any consideration of a tandem model. I-we-sail inland-lake waters.

David

### **Rocky Keith**

August 31, 2018

To George Yioulos,

I tried a weta for the 2nd time with Jon Brit at Norbanks. The rigging became formidable for my 76yrs, much to my chagrin. For ease of use I am back again to a Triak. A blog mentioned improving the ama buoyancy, rudder, furling and line leads. Have these been implemented.

I still don't know where the boat is produced.

I find it difficult to buy a niche boat that is totally unknown on the east coast, no testimonials, no references. At the same time, the boat seems right for me.

Your feedback is appreciated, in return, if I buy one, I can assure you I will be its biggest advocate.

# Guessing Speeds of Trimaran Designs

June 30, 2017

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: trimaran formula, trimaran speed

## Comments

**Thom Davis**

July 1, 2017

I went ahead and calculated "the number" for several designs that I have sailed or owned using published specs and using 170 kg for crew weight assuming 2 on board. The number reflects reality (relative speeds) between them...

Triak 0.71 (slow boat)

Windrider 17 0.89 (with a 13 meter spinnaker)

Hobie Getaway (catamaran) 0.98 (with a 13 meter spinnaker)

Weta 1.00 (Singlehanded-with 2 on board it is slightly faster than windrider 17)

Corsair F242 1.02

Boats I haven't sailed but I was interested in

Corsair Pulse 600 1.03

SeaRail 19 1.08

**Otosj**

July 3, 2017

Let me see . . . Hull length 4.50 meter, sailarea 7.00 m2, weight boat 93 kg, weight of me 91 kg, . . . Something like . . . 0.6?? Very slow. Ok, I used a gps and clocked 10 km/ hour in 4 beaufort wind . . still is not very fast for a trimaran of 4.5 meter length, but certainly not slow in my experience.

**Stefano**

July 3, 2017

Nepau, my trimaran, 5 metres , 11.5 square metres sails (white sails no gennaker) 180 kgs crew, 110 kgs hull,

Calculations give a 9.975 figure ... There must be something wrong. My tri is surely not as fast as a Weta on just white sails...

**Stefano**

July 3, 2017

Operation # 4 is ambiguous... divide by kgs of crew and boat, and THEN raise to 0,325 ( final result is 2.7)

OR, divide by (boat weight+crew weight) raised 0,325 ??

The results is then close to 20...

some examples would be appreciated...

**Thom Davis**

July 3, 2017

Sorry if it is ambiguous, Stephano. I get 0.68 for your boat plus crew. It is, indeed, slower than a weta.  $(\text{Boat Length to } 0.3) * (\text{Total Sail Area to } 0.4) / ((\text{Boat Weight plus Crew Weight}) \text{ to } 0.325)$

**Thom Davis**

July 3, 2017

I apologize if the characterization of fast or slow boats is an irritation to anyone. To me, a fast boat is one that has a top speed in excess of 16 kts. To me, a slow boat is one that goes to weather at less than 3 kt VMG (in the direction of the wind). Again, I think 3 kt VMG is a slow boat because I routinely sail against a 3 kt current so a slow boat won't get me where I want to go.

**Small Tri Guy**

July 3, 2017

This is all in good fun and helps inspire a lot of folks to think about these things.

**Stefano**

July 4, 2017

OK... now I know where to set correctly the parenthesis... Nice VMG predictor for future tri !

Thumbs up !!

Stefano

**Stefano**

July 4, 2017

Future trimaran, 6.8 metres, 420 kgs, 250 payload , 23 sq metres sails + 21 spinnaker = 44.

Calculations provide a promising 0.974 ... Glad to read this in comparison with Hobie getaway ...

It is an interesting challenge.

I wonder how the length-beam ratio would step in here... Narrower the best ( 1:10 ), or semi-planing (1:8.2) ? Anybody can step in with some numbers or sound experience ?

**Thom Davis**

July 4, 2017

Most of the newer designed tris seem to be going toward the 1:10 with reverse bows and larger volumes forward. Gotta assume Nigel Irens knows what he's about. Then again, don't design anything by what I say...I've never built anything from scratch.

**Otosj**

July 4, 2017

Mr Thom Davis, with all respect, 16 kts boat speed would make my 4.50 meter long trimaran more of a rocket instead of a boat while for a container cargoship of 300 meter length 16 kts make it a sloth.

If one sits in a kayak and does go 3 kts windward it is experienced as a good speed, often.

Now of course the experience is not much of a science, but I think that speed would be related to the size of a boat in the first place. Second to the type of boat (multihulls are considered as being fast boats in general) and may be also the purpose of the boat (cruising vs match sailing for example).

But, apart from these, the proposal to use a formula to such as boat speed in consideration with fast or slow is a good matter and in such the approach is very welcome, so I am glad with this formula anyway. (I consider myself as being too lazy to calculate much as I want to build and sail and then find out if my idea is slow or fast. It provides one with many boats though . . .) Calculating more would certainly provide better boats in my case!)

So my thanks for your effort and my respect for your approach mr Davis.

**Thom Davis**

July 4, 2017

I appreciate the thoughts Otosj. I have a Triak which is a sailing kayak and I know exactly what you mean by 3 kts seeming fast when you are 6" above the water. The Triak will actually reach about 10 kts downwind with spinnaker up, so that's a hoot! But I also sailed with a friend on his 4.4 meter Weta which occasionally hit 20 kts...sailing enjoyment isn't about speed for everyone.

**Small Tri Guy**

July 4, 2017

Well said Thom!

**Thomas**

August 1, 2017

Hi all, I own (since May 2017) a Magnum 21S: 6,3 m length, 350kg + 85kg weight (singlehanded), 16,5 sqm main + 6,5 sqm jib + 16 sqm gennaker.

That makes  $1,73 * 4,32 / 7,20 = 1,038$ . Looks as if this boat is fast. But till now I never was faster than 6.5 knots! (But I'm not an experienced sailor! Looks as if I make something wrong.)

**Small Tri Guy**

August 1, 2017

The Magnum S trimaran is designed to be a high-performance boat - <http://www.ahoy-boats.com/magnum-21S-trimarans-specification.htm>

There are a lot of factors relating to potential speed, however, that don't have anything to do with the boat's design. Learn how to sail that boat well in strong, steady wind my friend :-)

**Paul**

August 5, 2017

All I know is my windsurfmaran is going to be going mach 1 after I get the new amas together :)

**Dries Laas**

August 16, 2017

This looks like a promising tool, thanks for that.

I ran my intended parameters through it, and it is:

L 4.1m, SA 12.3sqm, Displ 190kg, Result 0.757

So not quite a fast boat, but upper end of slow, if that makes sense.

Now should I try to increase the sail area?

**AJ Laas**

August 16, 2017

Hi,

I've been chewing on some of these numbers, and the previously quoted result for the WETA is different from my result. I used the numbers from the website, and got 0.78 (main and jib) and 0.9 (main and screecher) but this was with a hull weight of 72kg as per 2017 spec. If I use the sail area as total of main, jib and screecher (19.5 sqm) the result is 0.966

Can you use the total sail area like this?

**Thom Davis**

September 16, 2017

Yes, you are supposed to use the main, jib plus screecher all together for the overall result. I may have used a smaller crew weight when I did the calculation which probably explains the variance between my result (1.00) and yours (0.966).

OBTW, IF you omit any large downwind sails in the calculation; that is, just use jib and main for a sloop...then the resulting fraction "should" come pretty close to the percent of windspeed your boat will go upwind. It seems pretty close for the boats I've owned or sailed. You may not have noticed, but your boat usually sails a pretty steady average percent of windspeed over the range of winds above 6 kts and until you are approaching the max speeds of the boat.

**Thom Davis**

September 17, 2017



Dries, you would be better off trying to make it lighter if you can.

AJ, I used length, 4.4; SA 19.5; Weight 72+85 or 157 and get .989 for Weta. I probably rounded up since I consider the Weta to be a fast boat.

**Scott**

September 29, 2017

Trimaran (and catamaran) calculations are automatically done for you at [multihulldynamics.com](http://multihulldynamics.com). Inputs are length overall, waterline length, beam overall, beam between the ama centerlines (if you know it), sail area, displacement, bridgedeck clearance for cats (if you know it), and beam of main hull (if you know it). Units can be metric or English. The site then will calculate sail area/displacement, Bruce number, average boat speed over 24 hrs, Kelsall Sailing Performance number, Texel rating, stability speed (vaka begins to lift) and Kelsall Stability Index (wind speed to capsize). A bunch of multis already are done. I think they all are bigger than most we look at here.

I ran this formula for Frank Smoot's Slingshot 19 with folding amas and 234 square feet of sail (more than he shows in his plans). This formula gave me 1.03 with myself alone (about 200 pounds) and 0.87 with by 300 pound brother along. So according to the comment above, it should match wind speed upwind with me alone. The multihull dynamics site gives a Kelsall performance number of 15.75, which I think means max speed 15.75 knots in a 10 knot wind.

# Ostac Tramp Trimaran Restoration

July 5, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Ian Farrier, Ostac Tramp, Tramp Trimaran

## Comments

**paul**

July 16, 2017

She's a beaut! Sounds like you have been treating her well, all those repairs. And all that paint! But can you really put a price on being on the water? Would love to see some videos of you on the high-seas but until then, happy sailing. And PS – I don't think the bilge pump was a waste of money because heaven forbid you ever hit something a bit larger, the pump will help stem the tide flowing into the main hull and give you a few more knots to get to safety.

**Small Tri Guy**

July 16, 2017

Nice comments Paul! Hey, I see you've got something going on over there at Windsurfmaran ... it looks very interesting :-)

**Wayne Holt**

August 7, 2017

Thanks Paul, I'm working over seas this summer but will be back on the water in the Fall. I'll try to make a short video.

Wayne

**Richard Biron**

October 28, 2018

Nice job Wayne,

I just bouger one mont ago, a 1985 Tramp Eagle. I already started some work on it. I will do somme mode on it also. The genoa idea Is vers good. If you have somme more pictures, feel free to send me some.

It will help.

Thanks and happy sailing.

**Jeryl Sim**

September 14, 2020

Hi Wayne,

I have bought an Ostac Trimaran recently.

My boat is moored on water and with the recent monsoon rains, have taken on alot of water.

I had recently installed a bilge pump with switch, but my cuddy is still on the original flaps, and water still pours into the cabin.

I am wondering if you managed to put a cabin locker / door on the 2 entrances to the cabin?

If possible to share your pictures? I may need pictures of how you place your bilge pumps as well – i have a temporary solution – the hose comes out of the cuddy under the slot. The pump has to fight over 40cm of height to pump the water out – i was wondering if it can be done more efficiently?

Thanks!

# Moving a Small Trimaran / Pro Around in a Car Park

July 7, 2017

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: boat mover

No Comments

# 10-Foot Carbon Fiber Trimaran

July 7, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: 10 foot trimaran, carbon fiber trimaran, small trimaran

## Comments

**Thom Davis**

July 7, 2017

Two questions. Why not boomless mainsail-it would be lighter. Also, why roller furling genny when a snuffer system is lighter and allows more choices in sail camber (roller furling pretty much has to have a luff rope which means you really can't have big shoulders for driving deep downwind)-it has the further advantage that there isn't any windage when not in use.

**aurelio**

July 8, 2017

Hi, mainsail from Moth class ( needs boom) genny with anti twist cable not fixed on luff....no problem for driving deep, genny only for "long distance" regatta ( hoisted downwind only)

**Thom Davis**

July 17, 2017

Thanks for sharing the video. Folks look to be having fun!

**Thom Davis**

July 19, 2017

In case you are interested, this boat should be a decent performer. Given 8 meter Moth mainsail plus a guess of 8 meter gennaker and figuring an 80 kg payload; get around 0.9 using my "handy velocity predictor".

# DC-3 Trimaran Build Continues

July 26, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

## Comments

**Abel Duffy**

February 8, 2018

Looking good! Thanks for sharing your build with us. It's very inspiring. It looks like a very high quality build. You must have some epoxy experiance. I look forward to seeing more of it.

# Aluminum Trimaran on the Water

July 26, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: aluminum trimaran

## Comments

**paul**

August 5, 2017

This is such an awesome build! I'm even more impressed by the fact the amas and main hull all look homemade, of course along with all the framing and everything. It's like every kid's dream to build a raft :) AIR?

**Valéry Gaulin**

August 9, 2017

Yes everything was homemade! I am very happy with the final result and it sit on the design waterline!!! With a multihull weight is very important and there is not much margin of error especially with the slenderness of the main hull as design. Everybody says that aluminum for a small trimaran is not possible because of the weight! Well I prove them all wrong. My aluminum are 0.06in thick with foam bulkhead every foot. Very stiff hull and with the foam it is basically unsinkable even if the hull are full of water because the boyancy of the foam was calculated and taken in consideration. I love it and enjoy it very much! It is my design and I am proud of it...

# Seaclipper 16 Building Project for Sale

August 7, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Seaclipper 16 trimaran

No Comments

# Yamaha Waterspyder Windsurfer

August 7, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Yamaha Waterspyder windsurfer

## Comments

**Bill Hackmann**

September 26, 2020

Would that wind surfer be stable enough for an older person? I have just sold my 25 foot yacht ... looking for a simple fun boat to sail on Lake Macquarie, Australia.



# Little Tri with Tent and Lug Sail

August 10, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Bernd Kohler, Little Tri, Little Tri trimaran

## Comments

### Allister

September 19, 2017

Have followed this design for some time. A sprit sail version especially appealing to me. Retiring soon, looks like the project for me

### Hans Schipper

December 15, 2021

I think I would prefer a lug sail above a sprit sail where you have a reefing option on the boom (like Koen Winnips is using on his small trimaran / sailing canoe.)

[https://www.youtube.com/watch?v=i4\\_mB-urbu8](https://www.youtube.com/watch?v=i4_mB-urbu8)

With a dividable mast you have a sailing set that is not too high, and can be lowered and stored well.

I think I am gonna try this next year on my Watermouse or on Briesje.

# Malabar Trimaran Still Looks Good

August 14, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: malabar trimaran

No Comments

# Scarab 22 Trimaran for Sale in Vermont

August 14, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Scarab 22 trimaran

## Comments

**rob paterson**

October 24, 2017

Greg--she's a beauty. I am interested in looking at her if still for sale. Can you send me specs and more pics? I have owned a corsair f24 but want something smaller thanks  
rob Paterson

cary,nc

**Roger Deslongchamps**

March 27, 2018

Is it still for sale?

I am looking for this side of boat.

Thank you .

**Bob Davis**

June 29, 2020

Greg

Is the boat still available?

What does a "little TLC" mean?

Thanks in advance

# Kayak Trimaran Now with Larger Amas

August 23, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger kayak, kayak trimaran

## Comments

**Chris Ostlind**

August 25, 2017

...and so begins the design spiral. Best of luck in your discovery process. This is a smart looking boat, Eric.

**Hans Schipper**

August 25, 2017

Hi Eric,

You have a beautiful name for designing the type of boats you make. It looks very good. I like it to build as light as possible. This summer I made a hull of styrofoam in a similar way for my inflatable sailing cayak. I will sent some picturers to smalltrimarans.com but I don't know if they will post is because it's only 2/3 of a small trimaran.

# Meade Gougeon – Farewell

August 28, 2017

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Meade Gougeon

## Comments

### **Dan Roy Andersen**

August 28, 2017

Sad news. To me, very far from there, the book of boat construction has the best written on the subject. The gougeon brothers have revolutionized the boat building and their G32 was far ahead of its time. R.I.P from Denmark.

### **Thomas Henry**

August 28, 2017

It is a dark day, but the light that was gifted to us from all the Gougeons will not go out.

### **Bruce Matlack**

August 28, 2017

I don't know how to post a photo here, however I have one to always remember his spirit by -from his last Everglades Challenge finish-

...Still in the cockpit of "Elder Care" with outstretched arms and white gloved, palms open to the sky, proclaiming his heroic, but wordless, fatigued finish after loosing his famous molded chair and bunk in a mishap.

He had had to choose between saving the chair in the black of night or possibly drowning trying to swim after it.

I have imagined him these last days looking up at the door jams of his room as they appeared to sway to and fro from the effects of morphine, and his always sharp brain saying: "you should have swam for the fucking chair!"

What a guy!

### **Dave Shatwell**

August 28, 2017

Years ago, I bought Meade Gougeon's book, 'The Gougeon Brothers on boat construction'. I soon had to buy another copy, to give to one of my sons. I have read and referred to the book on countless occasions both during boat building projects and while thinking about projects that will never get built. Sad news.

### **Steve**

August 28, 2017

Meade is a historic figure in the modern multihull movement and boat building in general and will be greatly missed.

Rest in peace, Meade.

### **Tom Rough**

August 28, 2017

I had just met Mr. Gougeon at Cedar Key last May. Hell of a nice guy and a hell of a craftsman!

### **Ronaldo Fazanelli Migueis**

August 28, 2017

He was one of my icons since I discovery his book on wood boatbuilding.

Ronaldo Fazanelli Migueis from Rio de Janeiro, Brazil

### **Thomas Dalzell**

August 28, 2017

I had just sent Meade an email earlier this week, with some questions on a boat that Jan had been planning while he was dealing with the complexities of finishing up Strings. I didn't get a response, and now I know the sad reason why.

Epoxy, boats, and a willingness to help anyone with a question. The impact of the Gougeons, the impact of love and goodwill, is far reaching.

### **Michael Reardon**

August 28, 2017

We will miss you pushing us forward Meade.

### **Rob Schofield**

August 28, 2017

Meade was one of the nicest people whom I have ever met. His brother Jan came out of the same mold, it was obvious. I very much enjoyed working for them on a couple of projects, and with them whenever I needed technical help on one of my jobs. They always stopped and helped me, regardless how busy they were. I remember watching Meade's first catamaran trying to sail to windward out of the mouth of the Saginaw River in the spring of 1967, and it had terrible lee helm and wouldn't sail! Wow! How far they have come! Adaggio, Golden Daisy, and an uninterrupted line of sailing winners, since then!!

Due to his absolute mastery of epoxy technology, I always referred to Meade as "The Gluru". He was, that...

The world is a much better place because Meade and Jan worked among us boat-nuts. We owe them a lot.

### **Thomas Dalzell**

August 28, 2017

Here is a great pic of Meade still at it:

<http://sailinganarchy.com/wp-content/uploads/2017/04/elderlycare.jpg>

It's a trimaran, with articulated floats. A design they have consistently waxed the opposition with, probably for 50 or more years, going back to at least the Little America's cup.

**Paul Riccelli (PARyachts)**

August 28, 2017

Rest easy my friend, your fight is over, yet your impact will remain for centuries.

**Mike Waters n.a.**

August 28, 2017

Sad news indeed. Jan and Meade revolutionized boat building and kept their WEST System at the top rank, as well as inspiring new approaches to design and fabrication. Their gifts to boat-building will be with us for centuries, and all who enjoy sailing their WEST-built boats are indebted to them. Sincere thanks to you both, and rest in peace.

**Marlene, the Sassea One**

August 28, 2017

The sailing world was blessed and inspired by Mead's contribution.

**Thomas Raiss**

August 29, 2017

In the 80's bought his book, changed and opened new challenges at our cabinet shop. First in furniture, today in surfboards, SUP and polynesian canoes.

**david halladay**

August 29, 2017

Much respect and love

**Wade Tarzia**

August 29, 2017

I met Meade Gougeon briefly at the 2011 Everglades Challenge, but I was too shy to talk to this fascinating man as he stood quietly to the side of the celebrations. What regrets! Never wait!

**Gary Moore**

January 18, 2018

Meade and Jan were friends for the past 60 years. I had the pleasure of learning boat building from both of them. They are missed.

# Gazelle – Farrier F25A

August 30, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Farrier F25A trimaran

## Comments

**Lee Currin**

September 1, 2017

what a year full of beautiful experiences. All of us couch potatoes are so envious.

**William**

July 25, 2018

Hi Bill , wondering if this is still current and do you still own Gazzelle ? I am looking at buying an F 25 A here in Oz .They look to have nice lines but a step down from our previous Whitehaven ( also WRC). How wet does the ride get in offshore coastal conditions ?

Is it easy to keep her flat at lets say 8 to 10 knots, which is where I am happy to cruise.

All the best from a fellow project fixer upper nutter .

William Reynolds in West Australia ,Indian Ocean currently blowing 40 to 50 knot squalls from the West whilst I am sitting on terra firma comfy and dry.

**Shawn**

August 20, 2020

Wow, just stumbled across this today :) We were the 2nd owner, I gather that she didn't get good care after we sold her, that's very disappointing. I'm very thrilled to see that she was found and so well taken care of, she provided my family lots of fond memories :)

# Really? Two-Thirds of a Trimaran?

September 3, 2017

Categories: Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: sailing kayak

## Comments

**Thom Davis**

September 4, 2017

Nah, what you have is a catamaran—you can call it a bimarán if you want, tho. Might even be a proa if you change the rigging some.

**Martin Corrick**

September 16, 2017

Your workmanship looks very neat, the rig is cleverly designed and you have built a modern and racy-looking outrigger hull. Excellent!

Now I think you should build a new main hull – not a blow-up boat – to match your outrigger, and you will have an excellent fast boat that looks great!

**Bill Cotton**

January 5, 2022

I was hoping in this search after viewing the video on U-tube that it is being marketed. I think the alma of the proa should also be drop stitch and sold as a kit that can be attached to my Sea Eagle Razorlite Tandem.

BTW I have a Warren 15.5' sailing trimaran(kayak). It is one fast kayak!



# Bolger Teal with Storer Outriggers

September 3, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Bolger Teal boat

## Comments

**Michael Storer**

September 3, 2017

Thankyou to Jan for putting this article together and thanks Small Tri Guy!

The outriggers were designed around canoes and kayaks, but there are some slender (narrow) dinghies that benefit.

The Teal is a very fun boat. And quite challenging in stronger winds.

I'm really happy with the video. Very different from sailing a Teal without the riggers :)

Thanks Again!

**Otosj**

September 4, 2017

I have looked at the Teal also, as it looks the most perfect little and simple boat to build. But I was afraid it might be too instable to sail in gusty winds, as the comments did tell.

Adding the ama's is a great upgrade, and you actualy made/designed a new boat out of it!

Although you will build one, building a larger, more serious (?) trimaran might be a mistake. Keep it small, keep it simple and pleasant. I am sure you and your family will have more fun in this one then in any bigger or more serious boat.

This little jewel you made is easy and fast to rig and sail away with, easy to handle and if any scratch comes on it it will be no bother.

The bigger one will become more complex, takes longer to rig and to de-rig, everything is heavier, clumsier and more expensive so every scratch (kids on board?) will hurt and it will end up you will sail less with it.

I know. I did it also.

**Small Tri Guy**

September 4, 2017

Hi Michael,

It's great hearing more about about your drop-in outriggers here on smalltrimarans ... I've contemplated building them for my skin-on-frame canoe :-)

**Small Tri Guy**

September 4, 2017

Otosj,

The same thought hit me after seeing Jan's results! Simpler can be better so much of the time.

**Otosj**

September 4, 2017

Small Tri Guy,

It are also the photo's that go with this article. They show such an intimate amount of fun. Little clumsy, cute boat, two people, smiling faces, real fun!

But sometimes you simply need a bigger one, you think.

And actually you might be right.

Bigger is also faster, further away, longer away, and it can end in people sailing on the open oceans towards nothing else then pure freedom!

And you can always build a smaller boat (trimaran!) because you did so before and it is pretty neat to have a smaller boat with you while sailing on board a larger one. Just to explore the further away little places that you can't reach only using a small boat or only using a big boat.

And because everyone needs to dream!

**Jan Cudak**

September 6, 2017

Thank you very much for the thoughtful comments! In my opinion, Phil Bolger was a genius to say the least because of his ability to make sailing more inclusive. The Teal is the very definition of simplicity. I don't want to go too much bigger – I am very limited by space and budget. I am very impressed with Paolo Lodigiani's Tricky Five (<http://smalltrimarans.com/blog/tag/tricky-five-trimaran/>)

It has a clever gaf rig that should be easy to set up. With a tabernacle, the boat could be trailered basically ready to go. And yes! The dream is to explore Croatia next year. We shall see. :)

# Mini-Hydroptere Foiling Trimaran Ready for Sea Trials

September 11, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: mini Hydroptere trimaran

## Comments

### Dave Farmer

September 11, 2017

I really like the twin rudder concept, as well as the rudder rake control. Do post as soon as you have something to report!

### Hans Schipper

September 12, 2017

A bold design! And exciting to show it now before you know how it sails. How high do you want to fly? I think the wings with the knuckle hinge are interesting. I hope the construction of one beam is sufficiently rigid to prevent rotation of the wing. I am very curious about how it works. I wish you a lot of success with the trial.

The developers of the Hydroptere were at least willing to overcome a lot of frustrations.

You live in a beautiful place.

### Jim Gallant

September 12, 2017

Well, I had mixed success on the maiden voyage. The center hull doesn't have enough buoyancy to keep the foils up fully out of the water when in non-foiling mode. My friend who was watching called it the low rider. I knew there was risk in this since Solcat catamaran hulls are known for being low volume. That said, it did actually foil! Winds peaked at about 13 to 14 mph during this sea trial. At those speeds I saw both amas leave the water, as did the stern. When it did, the whole boat went quiet, and the helm became super responsive. I probably foiled at most for 20 seconds at a stretch. When foiling it's very responsive to shifting weight fore and aft, and at times it would rear up in the front or nose dive. Eventually I found that moving my weight and either pointing or bearing off more would sustain the foiling. I was out about 2 hours and deployed and retracted the foils 3 times.

I think the only way to make it work as I intended now is to have a more buoyant center hull. A guy in Oregon had 2 Whaler Supercat 20' hulls for sale, but he flaked out on me the day before I planned to drive down to pick them up. I'm not keen to build a center hull at this point since I've been working on this thing for so long (burnout). I thought I might try removing the foils to lessen the weight and see how it works as a non-foiling tri, but it does need a bigger center hull.

### Hans Schipper

September 14, 2017

Maybe when you take some time you can make a fresh start again. I had the same with my Cool Finn trimaran. The boat is beautiful but the bow from the finn jol hull was too deep in the water to get the speed what should be in it.

Now I am working on adding about 180 liter buoyance to the center hull. I used styrofoam and glassfibre and epoxy. As soon as it is finished I will post it.

I think the frustration is part of a developers life. Maybe we are doing all this for this kind of learning! ;-).

### Frank Smoot

September 22, 2017

Awesome job! I just LOVE experimenters, and I hope to do something similar with one of my own tris one day. That's some really exciting stuff. Again, great job!

### Dutchy

September 29, 2017

Hello Jim,

Wow, it looks great. From your story it looks like the one tube is rotating on its axis (not stable flow angle foils). But anyway great that it foiled. Now adjust and perfect this..!

Hello Frank, I was wondering when you would go foiling for some time.

Just do it .. You will not regret it !

Hope to see more from you...

Dutchy

status: I have a working foiling model rc trimaran 80 cm long (selfmade ama's,vaka, foils and even sails)

Working on: making a 4,5 m trimaran with foils: ama's pvc hot air-shaped are ready: vaka working on now: 3 mm plywood (idea got I from Frank)

### Nigel Loller

October 2, 2017

Hi

I am also building a small "Hydroptere " layout tri using a modified windsurfer as a base

All foils are symmetrical section

Board will be a hybrid , in that to enable rig changes and to avoid heel ing issues I will try to sail it as a windsufer but as the front cross beam is well in front of the mast I am having to arrange steering on the rear foil to allow it to be able to bear away

### Wayne

November 14, 2017

Why not add volume to the hull you have, pvc pipes attached or foam even

# Texas 200 in a Cross 18 Trimaran

September 12, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Cross 18 trimaran

## Comments

**Jeff Turner**

September 16, 2017

This was really fun to watch Eric. Thanks for the video documentation. I loved it.

**Eric Dahlkamp**

September 17, 2017

Jeff, and I am thrilled to hear from you. Sure missed you out there. Thank you for saying hello. Still have yours? Have contemplated doing a Catalina Island trip. Got one possible other Cross 18 interested. Have you ever tried that?

# More on the Texas 200 Sailing Event

September 13, 2017

Categories: Small Tri Info - All

Tags: Texas 200 Sailing

No Comments

# Restored Searunner 25 Trimaran Now Sailing

September 13, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Searunner 25 trimaran

## Comments

### Eric Dahlkamp

September 13, 2017

Absolutely beautiful! Have always admired these boats. On so many levels the most practical efficient small cruiser ever designed in my opinion.

### John Ebert

September 14, 2017

On my passage through Walker Narrows of Leech Lake, my keel went into the sand and mud at 3 1/3 feet depth in a light wind from astern. The boat immediately stopped and began a slow counter-clockwise rotation of the bow toward the windward source. With a sudden anxiety but not panic I took hold of the keel control lines and slightly raised it some inches and was soon on my way again. It was a strange moment to have full sails and not going anywhere!

### Neil Kahn

September 22, 2017

Hello John

The boat looks fantastic. It's been great sharing your progress in getting her on the water. She looks wider than mine? Is she just 16 ft?

Neil Kahn Searunner 25 Ashuma

### John Ebert

September 29, 2017

Hello again Neil. I measured about 17 feet from top of each ama, which I think is about 5 inches wider than the design specification. I found a 4hp 4 stroke Nissan (Tohatsu) used for \$300 with a cracked internal gas tank so I bought it to replace to 3.5hp 4 stroke Tohatsu that only as neutral and forward. I found out Tohatsu has a remote control kit I can add to the 4hp Nissan so I can operate the motor from the center cockpit! I hope I can complete setting all that up by November 15th when I'd like to depart with it on the trailer to Pensacola area of Florida for the winter. Thinking of trying to get familiar with the Panama City Municipal Marina, they look like they have a good setup and it's not really far across the bay to the Gulf of Mexico. I need also to find that leak in my Metzler dingy floor and one tube! There's always something!

### Dick wick

November 14, 2017

I love this design it really seems to work well at this size. Charming boat.

### Ken Borgers

December 8, 2017

You're done a fantastic job, John. Fair winds and following seas to you! You've earned 'em. Thanks for sharing. I hope you'll update us on your adventures.

### Tom Henry

December 14, 2017

Congrats, boat sits the water perfectly. I'm sure JimB would be thrilled at your restoration. Love Jim, love his boats. Have had/built a couple of their boats (Jim and John), now trying to downsize to a Searunner 25 - so very envious. Post more sailing pics/vids... also would like to see what you did with the interior. please.

PS If anyone knows of a Searunner 25 that might remotely be for sale... please let em know.

### John Ebert

April 7, 2018

I have my November through April 2018 Searunner 25 videos of my time in Panama City, FLorida at [https://www.youtube.com/results?search\\_query=searunner+414](https://www.youtube.com/results?search_query=searunner+414)

### John Ebert

April 7, 2018

I'm returning to Minnesota with the boat in mid April, 2018 for spring maintenance and summer sailing again on Leech Lake. If I ever decide to sell it, I'll check interest here first. I lived aboard for 5 months, with my cat, during which I learned it is do-able but a larger space would be more humane treatment! I learned that the main hull storage wings areas sweat moisture a lot in cold weather and will be adding small drain vents to let the H2O puddles escape. I'll need about 2 drain vents on each area, for a total of 8. Only living aboard under chilly conditions would have exposed this design issue. About cats onbaord: Common clay litter tracks all over, a terrible combination on a boat. The happy solution is the pellet litter system by Tidy Cats, the "Breeze" litter system is perfect for onbaord cats!!!

I'm not happy with the transom mount for the 4.4 horse 4 stroke Nissan. Although the necessity to lift and drop the motor vertically is provided by the mount, it wags left and right and rocks stem to stern in rough water. Also, the latching lift bar can become unlatched in really tossing water requiring I secure it with a line before heading out. Irritating. I will be exploring a different mounting in the aft starboard wing spar area, maybe add a section to that spar over to the starboard float creating a small deck section of sorts. More on that as it happens. Also, moving the motor there will provide better clearance for the remote cables when tipping the motor up out of the water.

### John Ebert

April 7, 2018

I had to scrub the slime off the Pettit Hydrocoat bottom paint after 4 months. Not a single baracle as far as I can tell. I won't get to test it over 5 months however since I pull it from the marina soon. I generally ran with the main reefed in here on the coast because it seldom was less than 10 knots wind and this lightweight boat and sail setup made it too hot to handle nicely. It single handed sailed more enjoyably with less mainsail up. In inland waters however in 7-10 knot winds, it will be fine with all sail up. Weather and wind can get up very quickly in the Gulf, so I just go reefed most of the time.

# Small Camp-Cruising Sailing Trimaran Project

September 22, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: camp cruise trimaran, small trimaran

## Comments

**Jerry Culik**

September 27, 2017

Well done, Eric. This is a great example of "re-purposing" old boats that still have life in them. There are plenty of cheap donor hulls (and rigs) out there, and I've found that this approach is much faster (and much lower cost) than starting from scratch.

I'll be interested to see how your boat works out once you get it out on the water.

# Old Canoe Plus Windsurfer Creates Small Tri

September 28, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: canoe trimaran, sailing canoe, trimaran canoe

No Comments

# Texas 200 on a Weta

September 28, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Texas 200, Weta trimaran

## Comments

### Eric Dahlkamp

September 28, 2017

Fabulous write up brother! You do an amazing job helping us experience your trip and offering all your incredible lists! Great work Peter.

### Thom Davis

October 2, 2017

Very well done writeup and share. One question...why didn't you just have a reef put into the mainsail instead of getting a whole new sail?

### Skeezix

October 8, 2017

Nice write-up and pix, thanks.

Try box wine. Take the bag out of the box. Packs easy.

### Wade Tarzia

October 9, 2017

Nicely complete documentation. I am glad to see you also packed several spare shirts — people made fun of me for doing this, but I figured, shirts are light, and potential salt-water sores are heavy :-)

### Paul White

October 29, 2017

Great read and it's good to hear of someone doing a marathon event in a Weta.

You should also look at the mods that Linda Wright made for her two entries into the Everglades Challenge, designed for her by multihull guru Randy Smyth. These include recut sails with a reefing system for the main and jib as well as a fuller cut gennaker and self-tacking jib.

She also had a rotating alloy mast with a track allowing the main to be reefed easily.

An alternative if you keep the existing mast may be to have a drogue which you could deploy to keep the boat head-to-wind when reefing.

Other tips – use jumbo pool noodles threaded with bungee for fenders – much lighter and can be wrapped around the float when deployed. They also make good emergency rollers for dragging the boat out of the water.

Speed and tracking – I use the RaceQs app (iOS and Android) for speed and tracking – it works even when the phone/ipad is below deck. There's also a version for the Garmin Smartwatch.

I've also been trialing iRegatta for navigation/race data an iPhone mounted on the mast with a RAM roll-bar mount – the main issue with any phone-based system is trying to read the screen in sunlight (it helps to view it in landscape mode because of the polarizer). I pads are probably too big to mast mount although an iPad mini might be a good compromise if you can find a waterproof case.

Linda used a Garmin GPS with waypoints pre-set for navigation while sailing so allowing you to just concentrate on the arrow showing the next waypoint – which may be easier to do when tired.

You might also consider adding an action camera mounted on a pole on the back of the boat and another on the bowsprit facing you. The Warrior G1 has a 7hr battery and only costs \$120.

More info on most of these mods and gear on the Weta Forums at wetaforums.com

More info on Linda Wright's EC mods here <https://www.wetamarine.com/news-and-events/everglades-challenge-addiction/>

Personally I'd love to do an event like this but in Australia the insurance issues have made it impossible.

### Paul White

October 31, 2017

Further thoughts:

I've raced my Weta solo with the full rig in winds over 35 knots (measured on the start boat). Linda and Randy practiced for the EC in winds gusting over 40 Knots using them mainsail alone. And there's a Weta owner in Scotland who survived a 56 knot squall because he had the furling jib.

Admittedly, this was without all the gear you were carrying but as long as the weight is low in the boat and kept towards the middle it should actually help.

So the Weta can take very high winds using the standard mainsail – if you've had some practice.

Additionally, you should try using the optional chest harness which supports your torso when hiking out – particularly if you're sitting on the floats which increases your leverage by 20%. The chest harness also prevents you from being separated from the boat if you fall off and it has a quick release if you capsize.

### Dane

January 12, 2023

fantastic write up, thoroughly entertaining.

I would appreciate some detail on how your camping setup was, I thought the trampolines were not long enough to sleep on, or did you have something under to cover the beams?



# Bahamas Cruising on a Tramp

October 11, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Tramp Trimaran

## Comments

**Eric Dahlkamp**

October 24, 2017

Peter, you're my hero!

# Expedition Double Outrigger Sailing Kayak

October 18, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: sailing kayak

No Comments

# New Philippine Paraw Boatbuilding Plan

October 20, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: paraw, Philippine Paraw

No Comments

# First Sail on a SeaRail 19 Trimaran

October 27, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Searail 19 trimaran

## Comments

### **Greg**

October 28, 2017

Hey Thom it's Greg (Vetgam) from the Hobie site. Nice purchase! Beautiful boat. Watching for future videos.

### **Scott**

November 4, 2017

Hey I never considered it before, but the Constitution-class starships are trimarans! Opens up a bunch of naming possibilities.

### **Tony**

January 6, 2018

Send me a message, I am in the area and would like to see a sea-rail 19 in person.

### **Thom Davis**

February 3, 2018

Tony, I don't know how to send you a message through Small Trimarans. Maybe "Small Tri Guy" can get us in touch with each other? OR, you could join the Google Group for Searail-19-trimaran

# Camp Cruising Trimarans in Madagascar

November 11, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: small trimarans

## Comments

**Kaltsas Andreas**

November 12, 2017

Hi Joe, the boat is the Trimaki and i think that there is already a post about it. In 2016 they make some changes as the new ama hulls with higher volume ones without keel. Here is the latest video of the boat <https://youtu.be/vuPz-tjMtcc>

**Small Tri Guy**

November 12, 2017

Terrific video link Andreas.

Many Thanks!

# Building Boats with Carbon Fiber Cloth

November 16, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: carbon fiber boatbuilding

## Comments

### Thom Davis

November 18, 2017

First you have to decide if the benefits outweigh the cost. Sure C is lighter by itself, but after resin is applied there won't be much difference in a small boat. Fiberglass is more flexible so any dynamic loaded parts will last longer before fatigue breaks them. C conducts electricity, so sailing in a thunderstorm becomes more of a scare.

<https://gwcomposites.com/carbon-vs-fiberglass/>

### Stefano

November 18, 2017

Why carbon fiber? Stiffness and lightness is the core reason for adopting it in amateur boatbuilding. I once saved 5 kgs ( 11 lbs) on a 17 ft kayak, just by using lighter scantlings, quarter sawn high grade softwoods, and by pre-finishing all parts (wood epoxy saturation on flat warmed wooden surfaces and paint before assembly). If you care for lightness and stiffness, wood is an exceptional material and way less costly and more forgiving. Other fibres can be used at a fraction of the cost. Correct engineering and keeping at bay the tendency to overbuild to err on the side of safety, can make miracles. Especially for your pockets.

### ian

November 21, 2017

another consideration is that to develop maximum strength and rigidity in the final composite structure using CF you usually need to do some kind of steady controlled heat curing (not just with a hair dryer) and/or pressure application, or both (autoclaving)...it may still be superior to other fibers with a room temp cured epoxy and a traditional wet layup, but perhaps not worth the extra cost and care needed to work with it, especially for something like an entire hull as opposed to smaller parts and reinforcements.

some good points and tips here-

<http://forum.woodenboat.com/showthread.php?8327-Why-are-carbon-fiber-composites-baked>

<https://www.nsxprime.com/FAQ/Miscellaneous/carbonfiber.htm>

<https://www.pcimag.com/articles/101118-maintaining-the-perfect-temperature-for-epoxy-curing>

### Stunned

November 22, 2017

I've used carbon fibre to build radio controlled yachts for more years than I care to remember. If building anything larger to get any benefit from carbon fibre you need to get advice from a composites engineer about correct layups.. Carbon used on its own can sometimes become very brittle with age and when I use it I always use it in conjunction with glass cloth to give it some flexibility. But if using it in localised areas to give additional strength go for it.

# Old Finn Trimaran at Stockholm Archipelago

November 24, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: camp cruise trimaran, small trimaran dinghy

No Comments

# Searunner 25 Sailing Around the Gulf of Mexico This Winter

November 30, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Searunner 25 trimaran

No Comments



## New Article by Jim Brown on the Hybrid Wing Sail

December 6, 2017

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: hybrid wing sail, randy smyth hybrid wing sail

No Comments

# CM-25 Trimaran – Free Plan Offer

December 11, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: cm 25 trimaran, Czech Multihulls

## Comments

**Brandon Freeman**

January 16, 2018

I think you have a very interesting design and I am going to be looking for something to build similar in this style please send information

**Small Tri Guy**

January 16, 2018

It would probably be best to contact Petr directly using the contact info on his website. That would surely be quicker.

**Bill Wang**

June 1, 2018

Hi Petr,

I am really interested in your CM-25 trimaran. And I really want to build one CM-25 by myself. Could you please send my one copy of CM-25 plan?

Thank you very much,

Bill

**Arthur Carl Scott**

August 12, 2018

Interesting boat I would like to see the plans ...

**Alexander**

April 21, 2019

Hi Peter, I am looking for the plans for the trimaran of this size. I do not promise to start straight away (I built a boat already and I know how long takes the preparation process) but I am really interested in your project.

**JOHN Cortazal**

July 31, 2019

I'm very interested in building your design. I just retired and committed to building a trimaran for cruising the Bahama chain.

**andrea**

May 22, 2020

good morning

by chance someone has the czech multihull email contact.

I can't find it

thanks

**Small Tri Guy**

May 22, 2020

Hi Andrea ... this is the only contact info we have: <http://www.multihulls.cz/contact/>

**Andrea**

May 22, 2020

Thanks for the answer.

I also saw the site but there is no email contact and unfortunately I don't speak Czech.

Without an email it is practically impossible to get information.

What a bad luck. It was the perfect project I was looking for and the only I have found.

**Nikko**

May 22, 2020

I am planning to build a small trimaran and I think your design is what I'm looking for. Sleek ,small ,look fast and can be built at a low cost.

**Cameron**

October 1, 2020

I'm interested in building a 30' version, starting next spring. Please contact me if your offer is still available.

**Vicente**

April 6, 2021

Does anybody know how much building one excl./incl. rig would approximately cost?

**Sven**

May 4, 2021

Hallo super design, können Sie mir die Pläne schicken?

**John Avery**

February 9, 2022

Hi I am looking for a DIY Trimaran to build and sail from Cape Byron Australia to the tip of Cape York Australia as a fund raising venture for Australian Indigenous Health MALPA.

This organisation helps young school students living on Indigenous Protected Land to use Indigenous traditional medical plants and methods knowledge alongside modern medicines while studying a medical degree at University.

I would like to see if your design would fit in with my ambitious as a pocket cruiser for a single-handed sailing.

**Small Tri Guy**

February 9, 2022

Hi John,

The Czech Multihulls site appears to be down. If their business has closed then this offer probably doesn't exist any longer. You may want to inquire about the DC3 Trimaran model at <http://www.searunner.com> ... it's a design by John Marples and created with a capability for ocean crossings. You may contact John via the searunner.com site.

**Jared**

August 21, 2022

Hi, I would love to receive some plans and hope to build. Thanks!

**Small Tri Guy**

August 21, 2022

Jared, try contacting someone via the contact page at <http://www.multihulls.cz/contact/> in order to inquire.

# New 10 Foot Trimaran for 2018

December 11, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: 10 foot trimaran class

## Comments

### stefano

December 19, 2017

Very neat boat. I have been a client for over a decade of <http://www.spraystore.it> and bought the cloth in the picture. It is made of very tough small mesh size polyester net covered in rubber (black or white). Mesh size is about 2 mm square side. Very tough and durable also under the Mediterranean sun for trampolines and for self draining bags (spinnaker launch bag on my trimaran)

### Stefano

February 22, 2018

I have just been informed by Mario Falci, another small trimaran designer-builder in the 10ft development class, that the record spees for the class has been set @11knots ... not bad for a 10 footer that should have a hull speed of 4.23 knots.

It must be noted that no heavyweights are seen on such small tris.

### Tony Watermann

March 8, 2018

Hi Stefano, My little Bazooka tri has done 10 knts which was a big surprise. It's 3.3m so just over 10 ft, has a plumb nose and a not very efficient sail with unstayed carbon mast. But you can balance it out really well so that you are essentially only wetting the main hull. It also seems to pick up speed quickly after a certain speed and begins to plane, again a bit of a surprise as the hull pulls up love me a rocker on a surfboard at the rear. I think that the flutes along the side which are primarily designed to act as daggers actually also induce lift like small wings that helps it plane.

I know I rant on about how good this little boat is but it constantly surprise's me.

What I would really love to do is build a new one that has all the great features of mine but in a more traditional Polynesian design and lines. But alas not a project that I have time for at the moment.

I firmly believe that a modular recreational and good looking small tri that can be easily moved around and is very durable and functional would appeal to families above a small cat. I have owned high performance cats in the past and whilst they would out run my little tri that is all they would do ( apart from flip and turtle). A little modular tri offers so much more in functionality and fun as it can be designed to be much more modular.

### EURO CHAVES

October 22, 2019

Good boat

Very easy assembly.

# Ian Farrier Passes Away

December 14, 2017

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Ian Farrier passes away

## Comments

**Stefano**

December 19, 2017

Sad news... quite young for a man that proved to be innovative in thinking until very recently. I owned one of his boats a TT 720 and really enjoyed sailing it with friends. RIP Ian...

# The Tribaby 17 Trimaran

December 14, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Matt Cooper, Tribaby 17 trimaran

## Comments

**Cliff**

December 6, 2021

You should remove the link to "his site", since it's no longer available.

**Small Tri Guy**

December 6, 2021

Thank you very much for letting me know Cliff ;-)

# The Comet 21 Trimaran

December 14, 2017

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Comet 21 Trimaran, Matt Cooper

## Comments

**Tony Watermann**

May 12, 2018

Nice design, is there any video of this boat sailing anywhere?

## 3 New Products for Sailing from Windrider

December 18, 2017

Categories: Small Tri Info - All

Tags: windrider dry bag, windrider swim shirt, windrider water shoes

No Comments



# Windrider Foul Weather Gear Bibs

December 30, 2017

Categories: Small Tri Info - All

Tags: sailing bibs, windrider foul weather bibs

No Comments

# Boating Fun at PTWatercraft

January 3, 2018

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Port Townsend Watercraft, PT Watercraft, ptwatercraft

No Comments

# Triple Joy Tandem Trimaran

January 4, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: tandem trimaran, triple joy trimaran

## Comments

**Iosif Gross**

January 22, 2018

Very nice work, waiting to see the VAKA building.

Very useful video also.

Would like to ask a question:

What is the white glue you are using? Regular wood glue, or epoxy glue?

Best wishes

Iosif

PS: Thank you Joe, Small Trimarans, for posting

# Sailing with Three Bags Full

January 16, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: three bags full trimaran

## Comments

### **Nathan Caves**

January 17, 2018

Hey people that would be my boat. I don't think I can add much more than what I posted on SA. If you have any more questions I don't mind answering them. I'm blown away by the feed back on this little boat. Cheers.

### **Small Tri Guy**

January 18, 2018

Hi Nathan. We're glad to be able to feature your boat :-)

### **Nathan caves**

January 18, 2018

Subscribe if you like it there will be more videos soon!! I'm totally blown away you guys have shown an interest in her. Stoked you have shared it. Cheers

### **Scott Iverson**

January 21, 2018

Ten years from now, someone will post a video of their new homemade tri, and some doofus will comment "Duh, you could have just bought a used Three Bags Full."

### **Stefano**

January 21, 2018

Very inspiring job and result... I love the Franken concept, especially when it turns out not to be a "stein" (i.e. a stone with a sail) .

For the lazy chaps, I'm pasting the words of the author posted on Sailong Anarchy:

"She a Franken-tri made from a nacra 5.8,a cobra cat with a F18 Main sail and cobra jib. No down wind sails yet. The nacra hull was cut down the centre and widened by 150mm at the transom. The halves where canted out slightly. The shear raised by 100mm The cobra hulls (3mm ply)were wrapped in carbon the boards removed and bows modernised. All up she weighs around 250kg. Two fit people can lift her unrigged. Length ended up 5.75m Beam is around 4.4m. Single rudder and board. Sleeps 1adult and child each side. Top speed 20.5 kts in flat water and 25kts, she does about 10 kts in around 14kts of breeze"

### **Stefano**

January 21, 2018

I would ask Nathan if he can expand on two things:

1) the rigging. I can see it is braided spectra with no " sleeve" on it. I also doubles in a "V duck foot" to the amas. Did you retain the SS rigging of the original mast ? Did you strengthen it somehow?

2) The conception and construction of the akas: what foam, what transverse beams did you use, how are they fixed on the amas ( through bolts ? any strengthening of the original location ? ) Many thanks in advance from Italy, Stefano

### **Nathan Caves**

September 2, 2018

Hey Stephano,

Sorry for the slow reply, I'll do my best to elaborate.

The rigging is 4mm dyneema. I love how it doesn't scratch up the boat when setting/packing up. It's easy to put an eye in and easy to store. It's around half the weight and just as strong as wire. Three Bags mk1 had the rig stayed to the main hull with wire. The attachment points and mast in the same lay out as the cobra cat the rig came off. It worked well but it was a pain moving the stays out board so I could put up the tent. Also the structure was HEAVY. During her revamp I eliminated the beam for the stays. The logical place for the stays to go was the beam bolts. I could do this without adding weight, or Labour. The disadvantage of this means I now need the outside hulls on before I can put up the mast.

Before the revamp the beam sockets sat on top of a foam 80density beam it held up OK but flexed slot. The aluminum mast section beams slid into the sockets to the centre. They looked pretty ugly and being a flat face facing forward waves and spray slapped them silly! I was going for a bigger rig and was concerned about overloading them. I ended up deciding that I could get a deeper beam section with a lower profile if I put the beam sockets in front of the beam rather than on top. I used 20mm 100 density core cell for the beam bulk heads with layers of Bi, Double Bi, and unis. The sockets are now 8mm thick carbon only 400mm deep to take a 100mm x 3.5mm round alloy section. I added a light round section to the inboard ends to continue the line of the socket to the centre. It is also the front edge of the beam fairing. I built this up to around 6mm with carbon then faired the rest in with foam to create a "d"section. Everything was done with vinyl ester resin. Hope I answered your questions. Cheers.

# Expandacraft for Boat Rental & More

January 23, 2018

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: expandacraft, expandacraft trimaran

## Comments

**'BJ'**

February 15, 2019

Lots of ideas to share, Brisbane Aust. Factory, experience, materials,moulds,(mostly multi hulls to 8.5 m) even accommodation (with limits) and free boats. All in exchange for your help finishing some of my projects. Even hydrofoil 'n' model boats. Includes 'Dragonfly 8 m tri, 8.5 m tri, Nacra 5.8 Camper cat or tri, (or foiler) any thing made, (or can be made) of fibreglass 'Not for profit' To use for charity. Ask site for 'B J's details. Ex small business, 45 years experience, (still love it).

# Meermark M17 Trimarans Coming

January 31, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Meermark M17

## Comments

### Tony

February 2, 2018

Read their skteand inspiration for the design.

My little Bazooka tri does everything that this design does but has inbuilt air chamber floatation as well as being self bailing. Also has trams you can hike out on to balance the boat better, and best of all it all packs u inside the main hull.

Meermark however being made from hdpe would be much more durable. Having said that a couple of well located sacrificial wear strips on my Bazooka seem to be holding u very well. Also I find glass epoxy easier to fix than poly.

### Stefano

February 5, 2018

A friend of mine has a sea kayak, now 42 years old and looking like new: it has been repainted twice ( only hull) and received one layer of 160 grams epoxy+glass in the cockpit.

to Tony: Are we really sure that PE small boats can last longer? to me they only have a higher recycling opportunity than GFRP when dismissed, but when scratched and faded or deformed by the long exposure to the elements they look miserable and give very little pleasure to the eye. Be it the owner's or others. This , to me , shortens their life cycle rather than extending it.

### Robert

February 5, 2018

I've been envious of the Bazooka owners; looks like a great boat. I'm beach cruising Puget Sound (NW USA) in a fiberglass Triak now and can appreciate the trade-offs of fiberglass and polyethylene:

Glass wins hands down on weight, repair-ability, and longevity

PE wins hands down on cost, and abrasion resistance.

I'd feel better about dragging my boat over the cobble, and barnacles of the intertidal if it were PE, but the weight is an issue for me.

### Tony

February 8, 2018

Hi Stefano, I've got a 30 year old PE kayak and have given it a thrashing. Looks old and colour faded with deep scratches that I could fill with a solder iron. For me PE wins hands down on durability. But being an old surfer I've grown up with fibreglass and resins and have a preference for them.

### Tony

February 8, 2018

Hi Robert, The Bazooka is an awesome little boat for us.

Ours is not rigged up for high performance but more as a little adventure craft. So would not really suit a sailing purist. Having said that ours is a 20 year old boat and I believe that the newer design is much livelier and performance based whilst still offering good functionality.

We glued on some wear strips to the bottom of ours as we had holed it a couple of times through wear and tear.

# A Windsurfmaran Trimaran?

February 15, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: windsurfmaran

## Comments

**Otosj**

February 19, 2018

Brilliant! I hope the board will not be too much pushed off course by the ama's, but this could be up for something fresh and new. As the board and the sail do loose their stability function I am curious to where this might end up.

One other major fun thing is it does not cost an arm and a leg to change and test stuff!

Looks superfun, I can not wait to see summer re-appear!! Keep posting results please, share the fun when trying this out!!

**DeepinEyes**

March 1, 2018

Small Tri Guy, thanks! And thanks for sharing your great posts every week!

# New 10 Foot Trimaran Update

February 20, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 10 foot trimaran, 10 foot trimaran class

No Comments



# New Trix 10 in Indonesia

February 21, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: trix 10 trimaran

No Comments

# The Super Foiler

February 25, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: hydrofoil trimaran, superfoiler

## Comments

**Thom Davis**

February 17, 2019

This year they've got most of the bugs out of the systems and the racing is intense and fun to watch. I like that it uses "real sails" instead of wings. But it does take a LOT of athleticism to sail and race it. No fat old men (like me) sailing these boats. [Link to race in Sydney](#)

# Unique 26-Foot Trimaran in Australia

February 25, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 26 foot trimaran, custom 26 foot trimaran

## Comments

### **Stefano**

February 26, 2018

This boat speaks much in favour of "trimaranizing" skinny and long monohulls, or even larger hulls, but planing, as exemplified in this blog by the J24 trimaran conversion. Anything – or almost – goes. To what degree and extent needs to be sounded by home builders possibly in safe quarters.

### **Tony Watermann**

March 8, 2018

Have seen a couple of these conversions now using old surfboat hulls.

Looks like an awesome and creative way to get a reasonable tri at a budget price.

Only thing that puts me off is that no mention of sailing capability in rough conditions or if it can be trailered as well as set up and break down times?

### **Small Tri Guy**

March 8, 2018

Great points Tony, especially regarding the setup and breakdown times off the trailer.

### **Tibor**

June 10, 2020

Very nice budget trimaran.

I would like your adventure to make something from nothing.

I would like to contact you as I am in Sydney to share your experience to start my adventure or buy yours and upgrade or etc.

### **Tibor**

June 10, 2020

Very nice budget trimaran.

I like your adventure to make something from nothing.

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# One Trimaran in the 2018 Everglades Challenge

February 25, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Everglades Challenge, Everglades Challenge 2018, Zollitsch trimaran

## Comments

**Eric Dahlkamp**

February 26, 2018

Don't forget us EC wannabes Mark! We talked about this...lots of photos, but especially video! We're counting on you! Make us tri guys proud!

# F101 Foiling Trimaran

February 28, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: F101 Foiling Trimaran

No Comments

# Trikala Trimaran for Sale in Charleston

March 2, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Trikala 19 trimaran, Trikala trimaran

## Comments

**Dave Garrison**

May 15, 2018

Is this boat still available? I couldn't find the craigslist listing

**Richard Biron**

September 12, 2018

Is it still available for sale

Thanks

**Colin**

November 14, 2018

Is it still available?

Colin

If so please send more info

# Snipe Hobie Trimaran Update

March 4, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: snipe hobie trimaran

No Comments

# Trimaran Rescue During the EC

March 7, 2018

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: randy smyth, SIZZOR trimaran

## Comments

**Jerry Culik**

March 9, 2018

Glad that Smyth is OK. Hopefully he was able to retrieve the boat. And hopefully Jim Brown will follow up with Randy and tell us about what happened. The video that was posted on the EC forum of the boat in Stump Pass (??) was awesome.

**Small Tri Guy**

March 9, 2018

Thanks for the video reference Jerry. I haven't seen it yet. Is there a link to it we can share?

**Small Tri Guy**

March 9, 2018

Here is a link to a video featuring the boats lined up on the beach at Fort DeSoto for this year's 2018 Everglades Challenge – <https://youtu.be/UGVJUDhkbhc>

**Jerry Culik**

March 10, 2018

Try this link to a video of Synergy by Tom Ray, who has a bunch of photos on the Watertribe forum — look for the listing from "Speck". I don't use Facebook, but I've read that there is a lot more on the Watertribe's page there.

<https://vimeo.com/259150565>

**Small Tri Guy**

March 10, 2018

Thank you Jerry!



# Trimaran Recovered from the EC Capsize

March 11, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: randy smyth, randy smyth hybrid wing sail, SIZZOR trimaran

No Comments

# Flying Mantis (Foiling) Trimaran

March 18, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Flying Mantis trimaran

## Comments

**Thom Davis**

March 19, 2018

Does look like fun for flat water and lake sailing. That foil "feeler" in front might not like chop very much.

# Eureka Canoe with Double Outriggers

March 29, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Eureka canoe, Michael Storer

## Comments

**Michael Storer**

March 29, 2018

Thanks Small Trimaran Guy!

Some while ago you posted this one which I didn't know about.

Jan Cudak and the Bolger Teal they modified

<http://smalltrimarans.com/blog/bolger-teal-with-storer-outriggers/>

It seems from time to time that there are people who really do a lot of sailing with boats modified in this way.

I'm often surprised how much wind they go out in! But it seems the wood and bits of string can cope just fine.

Thanks again for the great website

MIK

**Small Tri Guy**

March 29, 2018

Ha ... thank YOU Michael ... for designing wonderful boats for us DIYers who want affordable sailboats and paddle boats!

**Wade Tarzia**

April 2, 2018

Lovely boat; this will be making a lot of DIY tri-people happy.

**Gene Busch**

April 11, 2018

Where can I buy plans for this trimaran?

**Small Tri Guy**

April 11, 2018

From the designer – Michael Storer – on his website at <https://www.storerboatplans.com/>

**Chris Journoud**

November 29, 2018

Hi,

Just saying after viewing the video, i think it would be a bit better if the amas were a bit higher in regard of vaka, with slightly curved akas.

I guess it would reduce wetted surface when sailing downwind and result in pushing less water.

Best regards

Chris

# SeaRail 19 Trimaran in the Spring

April 23, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Seairail 19 trimaran

No Comments

# A Preview of the Sting 600 Trimaran

April 25, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Sting 600 Trimaran

## Comments

**Ken Schulz**

June 28, 2018

Hi Len

Ken Schulz writing from Townsville. I have had a long term interest in multihulls – designed 100 of them and built 3. I am at present building my own design 25 ft catamaran. It has reverse bows and a 2.4 metre beam with a foil to extend 4 ft on the leeward side for more stability.

I have looked at your web sites over the years. Your latest venture the Sting600 looks really spot on. Congratulations on hanging in there. I wish you all the very best.

**Watermann**

October 10, 2018

Hi Ken, Len doesn't seem to drop in here too much so may not get back to you. He just get's on with the job of building boats and trying to avoid all the "experts" opinions that seem to ultimately flood forums and blogs.

Your cat sounds interesting, did you see Len's Jaguar pod cat design? A very nice "nearly" trimaran ;-)

**Dutchy**

October 31, 2018

Hello Tony,

What a great trimaran. Looks very neat!

I myself am experimenting with foils on my trimaran "Woodmax"  
(search for "Woodmax Double Outrigger" in the smalltrimarans site for info  
(<http://smalltrimarans.com/blog/woodmax-double-outrigger/>)

I saw your "L-shape" foil and wonder if the lower part is not too much raising up. (only horizontal area lifts)

I am also curious about the other specifics of the front foils (thickness, cord and length)

And ofcourse any action foto or video would be great.

# Ama Cannards Idea

April 27, 2018

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: ama cannards

## Comments

### Tony Watermann

April 27, 2018

Also note that similar ideas have been used on other tri designs to good effect. <https://m.youtube.com/watch?v=ibekCBKUGNw>

Simple proof of concept using surfboard fins on a Hobie TI.

### Thom Davis

April 27, 2018

Here's another precursor to stabilizing foils. <https://www.youtube.com/watch?v=CulVsigK4XQ>

### ian

April 28, 2018

Hi all,

FWIW- one important aspect of passive canards and how they function is that they aren't really intended to bring the front end of a vehicle up "when it dives" but are an integral part of maintaining design trim in normal forward operation, to prevent radical changes that might be catastrophic.

In an aircraft this means that a well designed passive canard type will be very difficult if not impossible to completely stall even if you try; the higher the nose goes up and/or airspeed goes down, the less lift the canard has and that airfoil stalls first..which causes the nose to pitch down and airspeed to increase, preventing the main (rear) wing from stalling.

In that sense this device is operating somewhat differently from a traditional canard...in a situation where wind currents make a canard equipped plane go nose high, it still operates as described above, but in a boat equipped this way it might have little effect on pitch-poling if the wave action creates a nose down trim, like in large following seas...unlike a canard aircraft that "sees" the nose blowing up as an extreme angle of attack, even as the boat's stern is lifted its orientation relative to the water surface as it moves down the face of a wave might not be appreciably different from traveling forward on flat water, and may even be \*more\* nose high than usual if the boat squats as it surfs, and could conceivably lift a bow mounted fin clean out of the water.

If the boat plows into the back of the wave ahead of it or just slaps the bow back down hard this kind of fin might not offer much resistance...that's pretty extreme, but worth considering if you were designing something that would really depend on this kind of pitch trim stabilization.

It's worth noting that the Catri 24 uses similar (but inverted V shaped) mini foils on the aft ends of the amas to stabilize the boat on its pitch axis-

<http://www.ahoy-boats.info/big/Aerial-C24-b.jpg>

-this idea here is that rather than try to push the bow up, the fins are oriented to hold the stern down, but it's in the same vein.

Both schemes have benefits and drawbacks but in general it's more common for the bow(s) of a boat to go high in normal use than for the stern to pop out, and the drawback that all of these kinds of stabilizers have on water is what happens if they suddenly lose grip at speed.

It's not hard to imagine what could happen if the Catri was being driven hard and was relying on that aft fin to stay in trim and the fin suddenly came off or just popped out of the water momentarily... and in the case of a fin at the bow, the latter could be a pretty common occurrence.

For that reason I'd think that all of these kinds of stabilizers would be best in relatively calm/flat water applications, and probably shouldn't be relied on too heavily unless you are prepared for those risks, and to remember that they aren't a solution to a poorly designed or improperly loaded or seriously over-driven hull.

Also FWIW, many hydroplanes now use an active canard that operates in the air flow to trim the bows up and especially down-

"In a hydroplane, the canard is used to adjust how high the front end flies over the water. This is usually set to a fixed maximum position and driver has a foot pedal (some times called the "down" pedal) to lower the front end. This allows a driver with quick reflexes to possibly avoid a fly over (see Accidents)..."

<http://inboardhydroplanes.com/hydroplanes/anatomy.htm>

### Thom Davis

April 28, 2018

I realize that foiling is the current rage. When I first started buying sailboats it was a planing hull that was the rage. I'm comfortable with moving people to change the boat fore/aft trim to avoid pitchpole and depowering when necessary; I like things that work predictably (like buoyancy and gravity); foils just have to be too perfect for my enjoyment...granted, now I'm "old school".

### Hans Schipper

April 29, 2018

I never knew I had a cannard on board.

But yes it gives a bit lift but most of all more stability and reaction time.

<https://www.youtube.com/watch?v=6G8ygsuylbQ>

### Tony Watermann

May 1, 2018

Great design Hans, can you give some details on foil design, angle of attack etc.

Thanks.

**Hans Schipper**

May 12, 2018

Hi Tony, see the post <http://smalltrimarans.com/blog/modifying-the-triple-a-trimaran-with-a-finn/> about making the subject. I called it a finn. The angle is about 5 degrees upwards, similar to the angle from the bottom of the ama.

**Michael Smit**

May 15, 2018

These canards appear to provide lift at all times. A purely nose-dive prevention canard should sit above the waterline, and only do its work when submerged. In this manner the canard would act in a similar manner to an increase in buoyancy above the water-line, but it would provide dynamic lift, as compared to increased buoyancy.

# Foiling Trimaran Rebuild

May 12, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: foiling trimaran, mini Hydroptere trimaran

## Comments

**Jim Gallant**

May 13, 2018

Update: First sea trial happened yesterday. With 5-15 knots of wind, a friend and I launched this boat yesterday. In short, we foiled a lot, then the a seam in a trampoline section split, and then the rudder mechanism broke.

My friend and I both weigh around 200 pounds each, so its ability to foil in relatively light winds was great. Sails fine in non-foiling mode, and indeed goes upwind very well with the new daggerboard. Deploying the front foils is much easier now with the addition of another block in the pulley system used there. The steering wheel turned out to be confusing in the heat of the moment to steer the boat until I realized you need your right hand on the right side of the wheel like you're driving a car, as opposed to your right hand on the left side of the wheel when sitting off to the side.

As for foiling, it probably took about 12-13 knots of wind for the 2 of us to foil. The initial angle of attack of the rear T-foil was too low. I have 5 different holes plus a pin to determine that, and changed it to the highest angle of attack. That seemed about right for the 2 of us. Foiling is eerie. Everything goes quiet. The water gets farther away below you. Steering becomes VERY twitchy. We had sustained "flights" for maybe 30 seconds at a time with steady acceleration. Very exhilarating. Very little heeling to leeward too. I used 1" 6061 aluminum square tube for a piece on my rudder assembly that the gudgeons were bolted too. That piece of aluminum broke, so the rudder assembly was held on by only the top gudgeon and pintel. I retracted the T-foil rudder and deployed the normal rudder, and controlled it by manhandling the raised T-foil rudder. We made it back to my house just fine. Will replace the broken AL piece with stainless steel, replace the now-twisted gudgeons, and have my sailmaker re-stitch the tramps. Will probably also replace the steering wheel with a tiller for better and less confusing control. I have confidence that we'll be foiling all summer. We get 5-15 knot northerlies on most nice, sunny days here.

**Stefano**

May 16, 2018

I'm sure Monsieur Eric Tabarly is smiling up in heaven.

Great job and project . One industrial foiling tri - forgot the name but rotomolded PE 2 places in a row - had some automtic trim adjustment flaps to foils, connectet do inversed L shaped square Al tubing that when free off the water would provide adjustment for less lift, and when fully immersed, would trim the boat flaps to more angle.

**Tony Watermann**

June 25, 2018

How awesome is this!

You made your own Windrider Rave style foiling machine.

Great job! Videos please.



# Selway Fisher Double Outrigger Sailing Canoe

June 1, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: selway fisher double outrigger sailing canoe

## Comments

**Andre Du Preez**

June 20, 2018

More on Steve and his canoe here <http://www.ocsg.org.uk/members-boats/steve-c/>

And one of the posts here-a well travelled tri canoe !

<http://www.songofthepaddle.co.uk/forum/showthread.php/43386-A-Summer-Cruise-Sailing-Canoe-Adventure>

**Small Tri Guy**

June 20, 2018

Terrific links Andre ... thank you very much for sharing!

# Sailing Canoe Trip in the UK

June 1, 2018

Categories: Small Tri Info - All, Small Trimaran Audios

Tags: UK sailing canoe trip

## Comments

**Thomas Henry**

June 6, 2018

Great boat. Great video.

Really shows off the capabilities of such a small and simple boat.

Wouldn't be surprised if this video itself creates more than a few converts to simple double outrigger canoes.

I'm in. I discovered Gary Dierking and his wonderful designs.

# Serious Cruising in a Foldable Trimaran

June 7, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Clou 10 MKII trimaran, Kurt Diekmann

## Comments

### Stefano

June 7, 2018

The boat has a very strange appearance to say the least, but the interior is very spacious and cozy. What impressed me the most is however that the pics show that it is a pure stitch and glue project with light framing. All seams are epoxy filleted and have just one narrow glass taping to make the structure a monocoque. This is definitely a legacy from airplane engineering. I am increasingly convinced that many boats earlier tris were over-engineered.

### Small Tri Guy

June 7, 2018

I think the center hull shape is very interesting. And those metal joints certainly add to its unique appearance.

### Peter Marsh

July 24, 2018

So what happens to those flimsy cross arm connections when you bump the dock, or hit a log? In my opinion, they look pathetically weak and I don't see any diagonal stays or struts to stop both arms from bending (not folding) back during a minor impact or when submerging the float bow in a wave.

It might work in a glider, but water weighs a heck of alot more than air! I wouldn't go out of sight of land in this if you paid me!

I have some experience in small trimarans, but this is very basic structural engineering, the same principal any competent builder would use for a roof truss or a barnyard gate!

### Small Tri Guy

July 24, 2018

Methinks those crossbeams aren't too flimsy. The pictures clearly show metal waterstays being employed. That was one way old-school trimaran designers greatly increased the strength of crossarms like the ones seen on this boat. Most modern designers don't use them because, among other things, they're not attractive. They were a part of many cruising tris decades ago though.

### e j kimber

August 12, 2018

It's a great piece of functional engineering, but a web search reveals no website for Herr Diekmann and does not even yield 'German Multihull Association'. Where do you go to enquire about plans?

### Small Tri Guy

August 12, 2018

Perhaps there was one, but there is none now? Nor do we don't have any information about building plans.

### SailBert

February 23, 2019

Kurt Diekmann died in 2013, I don't think his plans are still available.

There are different versions out there, I almost bought a version that folds Dragonfly-style.

More infos you can find from a guy that built one and still sails it:

<https://www.trimaran-segler.de/>

# Double Outrigger Meets Whale Shark

June 20, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger canoe whale shark

## Comments

**Don Dassinger**

July 4, 2018

Wow! Great photograph of the whaleshark, from above, in that clear water.

# Firefly Trimaran to Go Sailing with a New Owner?

June 21, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Firefly 26 trimaran, firefly trimaran

## Comments

**David**

September 12, 2018

To all of those who inquired, the boat has been sold. Thanks for everyone's interest.

# Texas 200 on a Weta (Again)

June 22, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Texas 200, Weta trimaran

## Comments

**Tony**

June 25, 2018

Thanks Peter for the write up, frustrations and challenges all make part of the adventure, and it sounds like you had a good adventure :-)

# Red Shark Bike – Pedal Powered Small Trimaran

June 25, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: red shark bike, red shark pedal-powered craft, red shark trimaran

## Comments

**ian**

June 25, 2018

It's a given that anything human powered will be limited, performance and speed-wise by the strength and stamina of the power source and human physiology in general, so being slow or unable to beat a current isn't always a mark against something like this- canoes and kayaks and sailboats can make negative headway in a current too.

But since a pedal drive will always suffer from a drop in efficiency due to friction and directional changes in the motion(s) involved, optimizing the rest of the craft both for straight line performance and maneuvering is critical.

One big red flag for me here is the choice of (what appears to be) a stationary drive mechanism with a forward rudder. That's not an unheard of layout and can have some advantages, but the fact is that most vessels that are by nature short and stubby and slow (like tugboats) can be incredibly difficult to manage using simple rudders that depend on forward motion to create turning moment.

As anyone who has docked a boat under power with a fixed prop shaft and rudder knows, even with the rudder directly in the prop stream a traditional rudder can become almost useless at low speeds, especially in reverse when the rudder is ahead of the prop relative to the boat's motion.

That's why low speed tugs that need to maneuver rely so heavily on shrouded props and bow thrusters and the like, and why outboards and outdrives redirect thrust to steer rather than having a fixed prop and rudders.

Without even the limited kind of directed thrust that an aft rudder located in the prop stream creates, I can't imagine this tri being able to get out of its own way under pedal power alone in the kinds of situations that can arise when there's other vessels around and you need to change direction and move quickly.

Add in something like a large powerboat wake and the rolling/pitching that would induce in a short stubby tri with a high center of gravity and things could get pretty scary pretty fast.

## 2018 Texas 200 in the Crosswinds Trimaran

June 28, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Cross 18, Cross 18 trimaran, Crosswinds cross 18 trimaran

### Comments

**Eric Dahlkamp**

June 28, 2018

FYI, per Matt Schiemer, current TX200 Sailing Club President, "Well folks, the 11th Texas 200 is now behind us. Another great year, with some challenging wind speeds the first few days, and some pesky East in the wind on Days 4 and 5. Overall though, an awesome year in my opinion.

"I truly enjoyed this year's event, particularly being able to sail and hang out with so many of the great people who participate. Anyone can sail any part of the Texas Gulf Coast any day of the year, and it will be good. But to make it truly great you need to do the Texas 200 and interact with the fantastic people who do this event.

"With the high winds on Days 1 and 2, we had a pretty high drop-out rate, possibly the 2nd highest ever. Only 25 of the 45 boats who started wound up finishing at Magnolia Beach on either Friday or Saturday."

**Tony Watermann**

July 9, 2018

Love your boat Eric, versatile, functional and fast.

Glad you didn't sell it, you would be kicking yourself for years to come.



# Sailing the Trimore 560 Trimaran

July 7, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Trimore 560 trimaran

## Comments

**Wendell Baliey**

June 4, 2022

are there building plans advable for sale.

**Small Tri Guy**

June 5, 2022

Nowhere that I know of Wendell.

# Flying Flea Trimaran in Australia

July 17, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: flying flea trimaran

No Comments

# Wa'apa on the Hawkesbury River

July 18, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: wa apa sailing canoe

## Comments

**Tom Henry**

July 19, 2018

Love it! Thanks for the video.

# Trilars Micro-Cruiser in Texas (for Sale)

July 18, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Trilars trimaran

No Comments

# 17-Foot Grumman Sailing Canoe

July 30, 2018

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: grumman sail canoe

No Comments

# Mini-Hydroptere Hydrofoil Trimaran Update

August 3, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Mini Hydroptere Hydrofoil Trimaran

## Comments

**Dutchy**

August 11, 2018

Hello Jim, looks great.

I am wondering about the sail. Is it a kind of windsurfboard sail.

Kind regards,

Dutchy

**Jim Gallant**

August 21, 2018

The mast and sails are from a Solcat 18' catamaran. However I use a modified windsurfer (wishbone) boom with it. With the wishbone boom, you don't need a vang, and it's safer since you can't get hit in the head with the boom while jibing.

**Dutchy**

October 23, 2018

Hello Jim, as you can see I have a trimaran also on this site. It uses wooden aka's. I wonder what are the specifications of your allu-tubes ( length,Wright,thickness..) regards,Dutchy

**Jim Gallant**

November 6, 2018

The main cross tube is 6061 Aluminum, 4.5" o.d., 1.125" wall thickness. You can buy them in 20 foot lengths. You'd have to look up the weight/ft. Pretty light though.

**Dr. Ing. Heinz Schneider**

September 25, 2021

Dear Jim !

First of all I would like to thank you very much for your kind Internet-presentation of the Mini Hydroptere Hydrofoil Trimaran.

I am a great fan of the original Hydroptere trimaran.

Please let me know by return E-Mail your possibilities to buy your Mini-trimaran as well, including with your best new technology-details from today.

Many thanks in advance

and

Best personal regards

Heinz

(Dr.Ing.h.c.Heinz Schneider)

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## Peek at Rod's Slingshot Trimaran (on Duckworks Online Magazine)

August 13, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Frank Smoot, slingshot trimaran

No Comments

# Seaclipper 16 Trimaran Building Project for Sale

August 22, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Marples Seaclipper 16, Seaclipper 16 trimaran

No Comments



# Outrigger 26 for Sale in New York

August 27, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Outrigger 26, Outrigger 26 trimaran

## Comments

**Scott Iverson**

September 1, 2018

I have always thought it an attractive tri, but my superstitious side rejects a multihull called "Somersault". What were they thinking, even if they did start with the not-clever-at-all "Summer-Salt"?

**Mitchell Hay**

July 17, 2020

Dick Newick has been known to thumb his nose at Poseidon, with names like Somersault, Rogue Wave, Moxie, and the like.

# Checking Out the Canoetri

August 31, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: canoe trimaran, canoetri

## Comments

**Ken**

September 1, 2018

Excellent blend of paddle and sail, beautiful too!

**Thom Davis**

September 4, 2018

Nice boat. Has some better features than my Triak since you can carry extra people. Two things to make it "better"...1) rig a snuffable spinnaker for going downwind. 2) rig an alternate steering position so you can move around and use your weight to counterbalance wind heel in larger winds when sailing alone.

# Build a Small Trimaran in Kevlar

September 12, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: kevlar trimaran

## Comments

**stefano**

September 15, 2018

small trimaran guy was convincing enough to buy a copy :-)... I want to give a try at composite materials that are starting to become economically accessible and unfortunately also more available than good or even acceptable quality plywood.

**Small Tri Guy**

September 15, 2018

Hi Stef,

You are funny my friend. I wish I could take about 3 months off and go to Italy to work on boats and go sailing with you! How much I would learn from you :-)

# Unique Clipper 18 Trimaran (for Sale in MN)

September 12, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: clipper 18 trimaran

No Comments

# Small Boat Trailer Building Plans

September 20, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: boat trailer building plan, diy boat trailer, wood boat trailer

No Comments

# WindSurfSki in Action

September 20, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: windboard trimaran, windsurfski

No Comments

# The CM 26 Trimaran from Czech Multihulls

September 27, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: CM 26 trimaran, Czech Multihulls

## Comments

### **Thom Davis**

September 28, 2018

Nice design and quicker construction. Similar to L-7 in appearance. The "knock" on plywood according to some is that if you get leaks, you destroy the underlying wood...I dunno though...care to set the record straight?

### **Small Tri Guy**

September 28, 2018

Having built 3 boats in wood, I now more understand that building materials and methods are included within the "trade-offs" of any boat design. There are pros and cons to be debated and weighed in the mind of any prospective boat builder.

### **ian**

September 28, 2018

Hi Thom,

Specifically with boats and other wet locations the major issues with any material come down to inspection and maintenance; plywood can be far less of a chore to keep up with and easier (or at least cheaper) to repair than a planked wooden boat and so it is attractive to people who want a lower maintenance material/structure.

Sheathing or sandwiching it in fiberglass/resin can make it even more durable and less maintenance intensive but that can also cause people to assume that it can handle virtually no maintenance with little if any structural problems the way an all FRP boat can...that just isn't the case, and that encapsulation can actually make the plywood structure \*less\* durable and more prone to rot and saturation damage if it traps water.

Glass-on-ply and ply core decks are notorious for this, in large part because of the kinds of penetrations that deck hardware, chainplates, etc. make and the need to bed those items properly and keep them caulked as they naturally shift and stress those water seals when under load. In turn that water can cause problems when it leaks into the hull area in a glass-on-ply boat that otherwise might sit in the water almost indefinitely without leaks or rot.

So part of any bad rap it gets is that people tend to expect more from it than it can really handle (like FRP it was something of a 'miracle' material when introduced, and was marketed as such); because it is especially attractive to DIYers who might not have a lot of building or boating experience and/or who chose it for low maintenance, a lot of the anecdotal evidence surrounding it comes from less than optimum situations and build methods and/or involves cheaper ply material that may not really be suitable for that application due to the type/quality of the wood or glue used in the composite.

FWIW I've owned and used a number of ply and glass-on-ply boats built from both high end marine and generic non-marine ply and apart from small areas I've never had any kind of serious rot problems...and all of those areas that did have rot were where some other damage to the plywood or the paint/caulking wasn't taken care of fast enough and (fresh) water was allowed to penetrate and stand.

### **Brandon W.**

October 3, 2018

Wood is good! I've got a little 46 year old glass over ply trimaran, Poco Loco, that I couldn't be happier with. It needed some love but with a little epoxy and elbow grease I'd now take that boat anywhere! If you build and glass it correctly, wood is hard to beat!

# Woodmax Double Outrigger

October 4, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Woodmax, Woodmax double outrigger

## Comments

**Tony Watermann**

October 10, 2018

Great stuff, love seeing people just do it. Lot's of summer fun for the whole family.

The daggers look good, do they act as lifting foils as well?

**Duchy**

November 4, 2018

Hello Tony,

Thanks for your response. It is indeed a lot of fun.

The daggers are supposed to give stability (because of lift forces).

To be honest, I have made a rudder with foil now but have to wait until the summer for a try-out.

As you can see my akas are wood, enforced with plywood plates. I wonder if they are strong enough to lift the boat out of the water.

How is your trimaran doing? I am very curious about how she sails.



# Sailboat Industry Commentary from Windrider

October 5, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Windrider

## Comments

**ian**

October 7, 2018

I think it's safe to say that if you look at any luxury/leisure activity where the buy-in price for new equipment is in the tens of thousands of dollars, the age of the people who can afford to do so will be in that general area...the average age of people who ride Harleys and drive sports cars/hot rods and fly sport aircraft that they purchase new is 50+ too.

In all of those cases (and with boats) there's a pretty robust used market, in large part because those kinds of vehicles are often built to higher standards than vehicles intended for general/utility use and are built to last and to be repairable...also because they are luxuries there's usually a few being dumped at a discount- for quick cash, to save a marriage, because people get bored or physically unable to use them, because they broke down and need too much work, etc.

Bottom line is that since the big production boom of the 1970's-1990's there's a lot of decent used boats out there and lots of deals that put new retail offerings at a distinct disadvantage...

the following comparisons are of course apples and oranges as far as boat types and operational costs but still show the shocking disparity in bang-for-the-buck that manufacturers and distributors like WindRider face when trying to entice buyers-

WindRider has the Astus 24 on their site listed with an MSRP of \$66,945...a very nice small boat, and not outrageously priced compared to the new market in general.

but a quick look on Craigslist turns up things like-

a 2002 Beneteau 331 sloop (34') for \$57,000

a 1979 Columbia 50 sloop (a true classic) for \$49,900

a 1991/92 Beneteau Oceanis 440 (45') for \$65,000

-along with all manner of very nice sportfishers, trawlers, etc. in the same size/price range...and many of these listings are brokers, which means you could probably do even better from a private party.

Sadly, of all of these kinds of luxury activities yachting is probably the worst as far as public perception regarding what enthusiasts can afford goes...so there is virtually no one outside the sport who sounds the alarm when regulations and taxes and the like add cost upon cost upon cost, and many in the general public feel a sense of justice served when they learn that people are being priced out.

Even pilots get more love than yachtsmen in this respect; the yachtsman is \*the\* go-to caricature of smug privilege and money to burn, pursuing a life of entitled leisure... and even if you are a blue collar guy with a crummy home built boat, many of the general costs imposed on the activity in general like licensing, repairs, marine materials, storage, etc. apply equally.

The federal luxury tax on boats imposed in 1990 really decimated the US pleasure boat building industry, and it has never recovered. This letter to the NYT from Joe Meglen (a big west coast builder/importer of that time) written as its effects were ramping up explains a lot and illustrates just how unfairly the industry and its buyers were/are treated-

"I have been in the boat business since 1972. The luxury tax that came into effect this year is in general unfair, but as it pertains to boats, grossly so. My industry was singled out and is being crushed by this tax. This will translate into lost jobs for about 600,000 people if something is not done quickly.

The luxury tax on new boats is a cruel hoax played on the public at the expense of those who work in the industry. The United States boat industry, and the 600,000 workers employed directly in manufacturing, were served as the sacrificial lamb to appease those who insisted on soaking the rich during Federal budget negotiations...

The Treasury Department has acknowledged that the 10 percent luxury tax on boats will not produce tax revenues to help solve the budget crisis. The luxury tax revenue will not even cover the income tax revenue lost to unemployed workers and bankrupt manufacturers.

The general thinking is that the rich can afford it, and an extra 10 percent tax isn't going to stop the fat cats from indulging in their toys. What most people don't realize is that those able to buy a new boat also have the ability to decide not to buy. And that is what they have done.

Since the luxury tax came into effect last Sept. 30 for newly ordered boats, nobody has bought a new boat on which the tax would apply! The National Marine Manufacturers' Association, the industry association that tracks such things, can't find a single sale in the whole country! Not one! However, the association has been able to document in excess of 100,000 layoffs (blue-collar workers — not fat cats) and numerous boat manufacturers going out of business. All during which not a single dollar of luxury tax has been collected.

Let's leave for the moment that the boat luxury tax produces negative revenue and discuss the unfairness of such an excise tax. A great number of people who buy boats are not rich but simply buy a boat to live on, in lieu of a house. A significant number who buy a boat that costs more than \$100,000 do live on board. Should they be

penalized for such a life style?

Or, why is a new boat a luxury, but a used boat not? Why is a new boat in excess of \$100,000 a luxury, but a \$500,000 vacation home in Aspen, Colo., not? Plenty of \$100,000-plus motor homes are bought every year. Why aren't they a luxury? Why isn't a \$250,000 airplane or a \$10,000 fur coat a luxury?

All excise taxes are regressive by nature. The politicians tell us that they are socking it to the rich, but all the while it is the average worker who is damaged the most. Don't be fooled by all the political posturing that took place last October. The real fat cats are in Washington, piloting a ship that is sinking as the result of their 20-year spending binge..."

<https://www.nytimes.com/1991/01/03/opinion/l-boat-luxury-tax-drives-an-industry-aground-926091.html>

People can argue about what regulations and taxes and fees are fair, necessary, etc. and what MSRP's and seller profit margins are "greedy" and whether or not "the rich" need to be punished but this will always remain true regardless-

"What most people don't realize is that those able to buy a new boat also have the ability to decide not to buy. And that is what they have done."

Here's another 1990 article that further outlines just how much damage this punitive tax did to the boat building industry-

"...Sales of boats that cost more than \$100,000 fell by 56 percent one month after the tax went into effect, according to the National Marine Manufacturers Association. Some boatyard owners, who report no sales this year, have been forced to lay off workers or declare bankruptcy..."

Dave Harrison... owner of Harrison Yacht, said the small number of workers he has left sell less-expensive boats. "Sales over \$100,000 have stopped," said Mr. Harrison, who last year sold \$1.8 million in yachts that would have been subject to the new federal tax. "To date, we have yet to collect \$1 in luxury tax."

"...The fat cat still has his money," Mr. Harrison said. "It's the worker they've just slaughtered."

States also will be indirectly hit by the luxury tax, he noted. Mr. Harrison estimated that \$488,000 in excise taxes from boat sales at his yard went into state coffers in 1988, compared with about \$15,000 so far this year.

"You don't think the state's hurting a little bit there?" he asked.

Henry Mo, chief of tax assessment for the Maryland Department of Natural Resources, which collects the 5 percent excise tax, noted a sharp drop in the tax since 1988, when the state collected \$21 million in boat taxes. In 1989, the state collected \$17.9 million. By April of this year, the state had picked up \$1.5 million in boat excise taxes for the fiscal year that ends June 30."

[http://articles.baltimoresun.com/1991-06-09/business/1991160128\\_1\\_luxury-tax-yachts-harrison](http://articles.baltimoresun.com/1991-06-09/business/1991160128_1_luxury-tax-yachts-harrison)

#### **Hans Schipper**

October 14, 2018

Thanks for the interesting analysis. In the Netherlands (and perhaps Europe) you see the same development. Bavaria yachts (Germany) was for many years a successful and efficient boat builder who built a lot of boats and delivered a lot for your money. Now on the verge of bankruptcy with possibly a restart. I think that the influence of the virtual reality of computers and telephones has brought about such a speed of life that having a boat is no longer attractive for many younger people. "Takes too long". When you want to sail once you rent something. The second-hand market collapses due to the lack of young loafers. Except for extraordinarily luxurious yachts for the people for whom money apparently plays no role, it is difficult to survive in the boat industry. For the same reason, the self-construction has also completely gone out. In the 70s and 80s, many multiplywood Dutch ships, "Waarschip" were sold as a construction package. Something like that is now unthinkable. Boat cracks like us are becoming increasingly rare ;-).

#### **Otosj**

October 30, 2018

Due to the economical crises, that does not seem to fade away, people do have more trouble than just a lack of money. There is also the rising of costs for boating and legal restrictions.

When I as young getting involved into boating was easy: for less than EUR 250,- you could buy a boat and for less than EUR 50,- a year you could park it in a water nearby a farm. If you would need to work on it it took a maximum of EUR 50 a week to hire a shed to work in.

Today there are still boats you can buy for EUR 250,-, but keeping it in the water will cost you at least EUR 700,- a year and a working shed will cost you EUR 500,- a week!

Comes with it that today there are many restrictions about where you are allowed to moor your boat, and with the crowded waters today there is hardly any privacy (try to swim nude somewhere!). You know always where you are and everybody seems to know where you are as well; all the adventure is gone!

I do not agree that young people do have no interest in boating as every year at the Dutch water sports exhibition lots of young people are attracted to things like sup-boards, kite surfing etc. All of which do will cost easily over EUR 1000,- to start with. But after that they do not cost a penny! No returning mooring fees, no expensive maintenance.

And there is hardly any hassle with staying legal, there is no need for registration plus young people can meet each other.

Prices of keeping a boat need to drop!

Registration needs to be restricted!

And Adventure need to have a chance!!

# DIY Trimaran Foiling

October 8, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: foiling trimaran

No Comments

# 18-Foot Trimaran Constructed with Hobie Hulls

October 9, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: trimaran hobie hulls

## Comments

**Brian Vickery**

February 16, 2019

The video looks like sailing the afterbay at Oroville If you are that close maybe we could meet up and swap yarns

**Greg Hardt**

March 2, 2019

Brian I live in Oroville I belong to Butte sailing we're going to have our first sail on March 23rd North forebay

Hope to see you there.

**David M Sylvestre**

November 28, 2021

Do you have any plans or diagrams for this project? Very interested in building the same.

**Small Tri Guy**

November 28, 2021

Be sure to check out additional posts:

<http://smalltrimarans.com/blog/18-foot-trimaran-made-with-hobie-hulls-now-sailing/>

<http://smalltrimarans.com/blog/multi-hobie-trimaran-updated/>

<http://smalltrimarans.com/blog/nacra-hobie-beach-tri-under-construction/>

<http://smalltrimarans.com/blog/nacra-hobie-ready-to-splash/>

<http://smalltrimarans.com/blog/updasted-beach-tri-now-spashed/>

## 3-Meter Trimaran for Sale

October 11, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 3 meter trimaran for sale

### Comments

**Peter Shapiro**

October 12, 2018

Bill

Interesting project. Is the boat complete (mast, akas, sail, rudder)? And where are you located?

Peter

**William F. Genevro**

October 12, 2018

Peter,

There is a mast, not great but useable, a sail, not sure about the rudder. Because I have the other 3 meter there is some overlap. I am happy to pass on anything not required for my 3 meter.

I am located in Dana Point, California, about halfway between Los Angeles and San Diego.

**Kevon conley**

November 7, 2018

Do you still have the tri?. I would be willi g to fly out there from chicago to see it and discuss options to buy it from you. Thx. Kevin

847 220 1198

# F25A Trimaran Called Gazelle is for Sale

October 18, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Farrier F25A trimaran

## Comments

**Shawn**

August 20, 2020

Ok, I know how she got to Mexico, I'm really curious how she got to Florida:) Some pix when we had her on FB

<https://www.facebook.com/shawn.steele.988/posts/3336579273070556>

Now we want another tri!

# 18 Foot Trimaran Made with Hobie Hulls Now Sailing

October 21, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: trimaran hobie hulls

## Comments

**Scott**

October 27, 2018

Congratulations on your splash.

Are the Hobie amas symmetrical or asymmetrical? I think Hobie only switched to symmetrical on 17+ boats. If asymmetrical, did you reverse the sides? In any case, did you toe them in a little? Mike Waters has suggested those are better strategies for preventing leeway, and he seems to have verified it with his W17. Sorry, his site [smalltridesign.com](http://smalltridesign.com) is down at the moment, so I can't offer a direct link to his article in Multihulls Magazine March/April 2016. But I have it saved, so here it is on a Google drive of mine.

<https://drive.google.com/file/d/1eFWvzWS44KUtTyb3ZeYGtFCuMJVETQxS/view?usp=drivesdk>

**Scott**

October 28, 2018

Edit:

Mike's site is back up, so here is the direct link to his design article. He discusses amas and leeway at the end ...

[http://smalltridesign.com/pdfs/MM\\_March\\_April\\_2016\\_W17\\_1.pdf](http://smalltridesign.com/pdfs/MM_March_April_2016_W17_1.pdf)

I am unsharing my copy.

Best wishes!

**Bob Paine**

January 26, 2019

Greg: Your design appears to solve the problem of the elephant sitting in the middle of the room with regard to small trimarans built off of a canoe or kayak or dinghy platform (including my snipe/hobie 14 trimaran- although I am extremely pleased with the way she handles and sails): i.e., bailing out the cockpit after a rainstorm. Here in Florida where we have a torrential downpour every afternoon during the summer, I can either take her out for two to three months or spend a lot of time bailing. Your boat apparently solves that problem (without having to go back to a sport catamaran platform with all its inherent problems). Plus you already have the daggerboard in the Hobie 18 center hull which makes it even nicer. I have toyed with your idea several times (especially during the summer months) and now that you have reduced it to practice I can move forward. Thanks.

# Squirt – An Old Man Wannabe Weta Trimaran

October 26, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: squirt snark trimaran

## Comments

**chris**

November 1, 2018

Hi Eric,

why do you switch from your nice Cross18 to this machine???

I liked your Texas 200 videos.

or is it the problem of finding crew?

Greetings from California

**Small Tri Guy**

November 1, 2018

Hi Chris,

We'll have to let Eric reply to his situation. In general, I've found that the smaller and easier a boat is to set up and use — the more it gets used.

Smaller often means more time out on the water.

**Eric Dahlkamp**

November 1, 2018

Hi Chris, still sail Crosswins on annual long distance events. She single hands very well, but I do like crew aboard in wind to take the tiller for me to handle the sails and seems a shame not to share the cockpit space with an enthusiast! Lovely ride, comfortable, fast and completely self contained for onboard camping. That takes time to stage though, making local trailer daysailing a bit of a chore – set up robs me of sailing time after the long trek to good water in these parts. Plus, here at home, family and friends don't sail so I end up going alone mostly. Squirt will set up in 5 minutes, be super responsive as a singlehander and carry everything I need for the day or overnight. Joe's said it all. The smaller the boat, the more she gets used.

**Paul Howard**

April 30, 2021

Eric,

I've been following your adventures for a while. Can't wait to see Squirt out there on the 2021 Texas 200. The last two years were a hoot! I'll be out there in my own Frankenstein's monster of a trimaran involving a 13.5' pirogue with outriggers named Sweetwater Breeze

**Small Tri Guy**

April 30, 2021

Howard,

We'd love to see some pictures of "Sweetwater Breeze"

Please send a few to me if you get a chance ;-)



# International 420 Dinghy to Small Trimaran

November 1, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: International 420 Dinghy multihull

## Comments

### Thom Davis

November 3, 2018

How did you decide how much extra buoyancy you would need in your floats? Not criticizing, but they look awful small.

### Small Tri Guy

November 3, 2018

I wondered the same thing when I first saw these pics Thom. I really hope Andy shares some more info with us. I love the look of this craft.

### Thom Davis

November 5, 2018

The 420 by itself is neat. I'm not sure more buoyancy to lee might not be less effective than a rack to windward for pure speed. Of course, a tri is more forgiving and allows you to move around the boat a little more.

### Wade Tarzia

November 8, 2018

The amas look to add ~300 pounds of buoyancy each, which seems adequate if (I assume so) the boat is still being sailed like a dinghy.

### mark combe

February 10, 2020

Please provide more info! I am looking to do something similar for my Pirateer to make it a little more camping friendly on the Columbia River. One thing I'm trying to figure out is how I would use my oars because I want to stay motorless. Thanks for sharing!

### Andy White

February 12, 2020

Hi Mark,

I have looked at an image of the Pirateer 13. It's about the same size as my 420 dinghy. I guess it would be easy to turn it into a small tri, rather like my boat. But I don't see how you could use oars to row it.

I carry a long handle canoe paddle for an emergency and it can move the boat along quite well, but it is not intended for prolonged paddling. Besides, the tri sails so easily and fast that the last thing I want to do is paddle or row it. Maybe you would experience a similar performance with your boat .

I have recently been sailing my tri single-handed with full rig in winds gusting 18-20 knots. Boat handling and speed have exceeded expectations. I have mounted an action camera on the boat and recorded videos out sailing. Maybe I can send one if you would like to see it in action.

Regards

Andy White

### Small Tri Guy

February 12, 2020

Hi Andy,

A video or two would be great! Can you post on YouTube? If so then it would make it easy for me to post them here.

### mark combe

February 14, 2020

Yes a video would be great! [macombe47@gmail.com](mailto:macombe47@gmail.com). What material did you use for your outriggers? Thank you!

### Mr. Toad

March 9, 2020

I have a similar story. Details of my I14 conversion can be found at:

<http://forums.sailinganarchy.com/index.php?topic/208203-i14-training-wheels/>

# International 420 Dinghy to Small Trimaran (Follow Up)

November 8, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: International 420 Dinghy multihull

## Comments

**dutchy**

November 8, 2018

Hello Andy,

Thank you for your information about the floats. As the designer en builder of my trimaran "Woodmax" (also in 'smalltrimarans.com') I do agree with the fact that the floats do not have to be very large.

....

In my humble opinion it comes down to what you want in a trimaran. Do you want it to be stable and safe? Then enlarge the ama's (possible length same as vaka for max speed) Be aware that in this case in strong winds, when 1 ama is up and big part of vaka out of the water, it will act like a catamaran. Downside is the extra weight needed for strong aka's and heavier large-volume ama's.

...

The other choice is in my opinion having small light (low-volume) ama's. They only help stability a bit and no more than that. This type of trimaran needs the help of body weight to manage heeling. It probably has to have minor sail area with lower mast (less volume in top of sail). This type of trimaran is more sportive, less relaxed but gives a lot of fun back.

Any other opinions?

**Tom Williams**

November 8, 2018

Thanks Andy. So, if you are going to sit in the center hull, like the Frank Smoot Slingshot 19, and not hike out, are you saying that you would then want higher volume amas?

**Small Tri Guy**

November 10, 2018

Tom, I put Andy's reply to you in the next post here: <http://smalltrimarans.com/blog/international-420-dinghy-to-small-trimaran-more-follow-up/>

**Hans Schipper**

November 11, 2018

I think that Andy made a right combination from small ama's with this type of center hull. The planing quality remains intact. My cool finn has ama's from about 40 kg and I experienced that is not a good combination.

You can increase stability when you add canards as I did with the triple A.

**dutchy**

November 16, 2018

Hello Hans,

I saw that made a trimaran using canards. What do you think would happen if the canards would give so much lift that both ama's would be out of the water ?

See my "woodmax" trimaran where this is the case.

PS. I am sailing at Eiland van Maurik, nederland, where are you sailing?

# International 420 Dinghy to Small Trimaran (More Follow Up)

November 10, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: dinghy to trimaran, sailing canoe

## Comments

**ian**

November 11, 2018

It all comes down to ballast, or the lack of it....in general, multihulls gain a lot of their superior performance over traditional monohull keelboats by eliminating the dead weight of fixed ballast.

In the case of small monohull sailboats like the 470, Finns, Lasers, etc. that don't use fixed ballast and have powerful rigs, moveable live ballast is critical to providing righting moment...in many cases that live ballast is enhanced by devices like hiking straps, trapezes, racks/wings and sliding seats and the like, and small sailboats so equipped are often comparable to similar sized multihulls in terms of acceleration and speed. The trade-off is that the more they depend on these devices, the more difficult and labor intensive those monohulls are to sail, and the less forgiving they are of mistakes and/or inattention.

Planing monohulls with low length to beam ratios like the ones listed above can provide a bit of a buffer as they have relatively high initial stability and maintain it when sailed flat, which is no doubt why those boats are far more popular than something like the International 10 Square Meter Canoe, which could be described as a trimaran main hull without amas- they are extremely long and narrow and have virtually no initial stability, or any stability that isn't the direct result of moving crew weight...as a result they are-

"...possibly the most exhilarating and technically challenging sailing experience available in a mono-hulled craft."

[https://en.wikipedia.org/wiki/International\\_Canoe](https://en.wikipedia.org/wiki/International_Canoe)

<https://www.youtube.com/watch?v=S4-8oQnH0AY>

Small tris can have the added safety and security of amas that can keep them from fully capsizing without that intense level of attention and that is a big reason why trimaran-izing a low stability hull like a canoe or kayak and fully depending on the amas for righting moment when sailing one makes some sense.

But the 800lb gorilla in the room is this: While a large trimaran that relies on ama flotation for righting moment can offset the added weight and drag of an ama in the water when under sail by losing tons of fixed ballast weight that a similarly sized/rigged monohull would require, the crew weight of a manned small trimaran will always equal (at least) one person and that person will always be a significant part of the all-up weight of the vessel.

Small tris that place the crew in a fixed central position and rely on ama flotation for righting moment add that drag but also severely limit the ability to move that weight away from the center line to increase righting moment, and that significant portion of their overall weight becomes much like the dead weight of fixed ballast except that unlike a lump of lead at the bottom of a keel, that dead weight is severely limited in the amount of leverage it can provide to keep the boat upright.

None of this is to say that centralized crew seating is bad or inferior; just that many requirements that the amas have a certain volume or size/shape are particular to that kind of trimaran that treats crew weight as fixed and unavailable to amplify righting moment, and don't necessarily apply to all small trimarans.

Central seating in a small tri is a compromise that trades overall performance for ease of operation and/or is dictated by the use of an existing high aspect ratio hull like a kayak...if you are willing to accept a higher level of attention and/or athletics needed when sailing, the range of design and function of the amas expands greatly, as does what shape of main hull can be used in the case of a conversion.

A number of (arguably) successful tris of various sizes have used dynamic lift (planing) to provide righting moment from water ski-like amas that have virtually no volume, or from foils attached to small amas that could never keep the boat upright by themselves when driven hard.

Others (like traditional native outriggers that use single bamboo tubes as amas) rely more on proper weight distribution to stay upright and the low volume amas act more like a tightrope walker's pole; they dampen any rolling motion and allow more time for corrections than the long/narrow main hull alone would offer, but might not offer much if any resistance to capsizing once the boat rolls past a certain point.

**Tony Watermann**

November 11, 2018

Ian, One of the best overall summaries of various aspects of tri design I have read.

Makes me very much appreciate the thought process that designers put into a well build design.

Makes me appreciate the versatility of my little Bazooka Tri and why I enjoy sailing it so much.

Thank you for taking the time to comment.

**Tom Williams**

November 14, 2018

Ian,. It was an excellent response. Thank you

**Dutchy**

November 17, 2018

Hello Ian, sounds like you know a lot about trimarans.

You are so right about the fact that a person's weight is a big

influence on the behaviour and performance of a small trimaran (I myself weigh 220 pounds)

I am curious about your trimaran. Can I find it somewhere on the small trimaran pages ?

**wdash**

November 19, 2018

I once read a Tim Anderson post about native boats and the modified Coleman canoe he used to do the inside passage, saying that one big float is better than two because in a flipped over position, one solo sailor could get body weight on it and flip the boat back upright better. How do you guys feel about that.

**Small Tri Guy**

November 19, 2018

That is one benefit of a proa-styled outrigger wdash. One counterpoint might be that a well-designed double outrigger would be less likely to flip in the first place.

**Tony Watermann**

December 10, 2018

You need a like button for some of these comments.

# End of Cool Finn

November 14, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: end of the cool finn trimaran

## Comments

### Dutchy

November 17, 2018

Hello Hans,

Dutchy speaking (builder of "Woodmax"). If you look at my post you will see that last summer I also use canards or small hydrofoils to keep my trimaran balanced.

I appreciate your honesty about failure when building a trimaran.

Here are some of mine last summer when building my "Woodmax":

Too much rocker, 12 cm (5 inch), in the vaka: gibing was perfect, tacking very difficult: changed it end of summer into 5 cm (2 inch): both gibing and tacking are excellent now.

Using wood as aka's: getting wet the strength of wood decreases a lot.(breaking ama' in 20 knots wind): will be fixed spring 2019.

Too long hydrofoils (4 ft): too much resistance in the water: changed into 85 cm (3 ft) hydrofoils: also thicknes at end reduced : much better performance.

Sail: using a surfboard sail it will lean a lot to the leeward side of the vaka: this was giving a lot of sailforce to change direction going into the wind. Had to react by pulling on the ruderhelm a lot: A jib reduced this effect, but still not good. I will make a mechanism (spring 2019) to pull over the whole sail to the windward direction, so the effort of force of the sail will be more correct with reference to the vaka.

(hope these experiences will help future trimaran builders)

(To all other trimaranbuilders: what where your (bad) experiences??)

Hans, by the way, I love to see your new boat in action (video or for real) I myself sail at the "Eiland van Maurik" in the netherlands.

### Thom Davis

November 18, 2018

10 feet wide might not be enough. My 19 foot tri is 15 feet wide and my amas are massive; mast length of 29'10"...granted, the floats only bury in winds above 15 but I suspect yours might bury in lower wind unless you bring heavy crew. Here's the specs for my boat which you might find useful. <http://www.searail19.com/p/specs.html>

### Hans Schipper

November 19, 2018

Hi Dutchy,Thanks for your comment. I have seen your tri and it seems to be a lot of fun with little material.I think a jib will help with good tacking. When I used google translate I still could not understand everything you wrote. We maybe better communicate in dutch.(fam.schipper@gmail.com). To me it seems the hydrofoils are very long and wide for such a little boat. I have, on the triple A, canards about 35 cm long (<http://smalltrimarans.com/blog/modifying-the-triple-a-trimaran-with-a-finn/#more-15443>) and they give good lift with enough speed. But my ama's have more buoyance.

Thom Davis,thank you too for your comment. I have seen some video's of your searail 19 and I think it is a "very big little tri-machine" I like the sound it makes when it is going full speed.If I was not such an avid hobbyist and I had the money for it, I would definitely choose the searail 19. It is exciting to see how everything bows. Probably built on as little weight and strength as possible. My centre hull has less volume and an estimated weight of 150 kg, no center daggerboard, so the amas have the function of buoyance and daggerboard (just like the old dutch flatbottomships). I think the amas have considerably more buoyancy compared to that of the searail 19. I have the opportunity to extend the amas further, but then I have to make a new trampoline. Because this boat has a different concept with deeper amas (two feet high) it gives the possibility to add stability with canards. I would like to make them narrower than the canard on the triple A, but wonder if I will maintain enough strength. How many percent of the boat weight should be able to be carried on the wings?

### Thom Davis

November 24, 2018

A lot of designers are designing their floats to be able to support the main hull plus one aka plus crew (ie, they hope to fly the main hull). Of course, those guys also have foils in the amas to hydrodynamically help when at speed. SeaRail doesn't do that (at least, I don't think so). You can guesstimate it yourself. Circumference of SR19 ama is 1.4 meters in the middle and a little smaller at each end; length 5.7 meters-it's oval not a cylinder shape so figure about half the volume of a cylinder with those dimensions.

### Hans Schipper

November 25, 2018

It is interesting to consider how many variants there are with different volumes of centre hull's and amas and whether or not in combination with foils. You can find a lot of variants on this site. My "briesje" design is an extreme example of a kind of tri where the middle hull has no buoyancy and one ama very much and the other ama a little bit buoyancy. According to some, it is so extreme that it should not be called a tri ;-). Every combination has its own pros and cons I think. The most ideal design depends on what characteristics you expect from your boat.

### Stefano

November 28, 2018

Hans, there is a great limitation in having sliding akas in sleeves going downward. On one side, there is the benefit of raising the ama when extended, but when you fold them in, the akas ( sliding tubes) at one point will hit the other ama hull on the other side, limiting the length. I think that parallel, no angle akas, like in tricat are a better

2/15/23, 7:39 PM

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solution, I am working on this for my own designed tri... I am also using rig and amas from a beach cat and building the central hull only ... Good luck with the new hull.  
Stefano

**Dutchy**

November 30, 2018

Hello Stefano, looking forward to your tri. I do not understand exactly your comment on what Hans said. Hans has a great aka-sliding-system he copied from de Astus trimarans. You can google "Astus 16,5 sport" as an example.

**Hans Schipper**

December 1, 2018

Hi Stefano, You are right that there is a limitation but when the limit is enough for the desired width there is no problem. I think in my case I can make the boat about 3,50m wide. Personally, I find the tubes nicer under a small angle. As I experienced with the cool finn I am glad with the pvc-tube layer that covers the sliding ama tube. That makes light sliding. I am curious about how the tricat system works. It seems that the tubes on the ama have the same diameter but still slide into each other.

# The Zephyr Wing-sail Trimaran

November 21, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: zephyr trimaran

## Comments

**Thom Davis**

November 26, 2018

Sort of a kite sail without the kite string and no worries about water relaunch. BUT, also lose the advantage of letting the kite go way up where the wind is. I think I'd stick with a Triak or Hobie Island...don't see any advantage of this over those.

**Ian**

November 30, 2018

Hi Thom,

One advantage of this kind of over-the-top tacking sail is that they can be easier to de-power quickly in a blow and manage without the need for reefing...when you drop the controls this kind of rig can just feather out in a horizontal position and windvane without a boom swinging around, and the more horizontal it is kept when sheeted in the less power it develops so you can play it like playing a throttle for minimal drive and heeling action in high winds.

The windward tilt (canting)when sheeted in also allows air spilled off the sails windward side to vector downwards and push up on the lee side rather than always trying to leverage the boat into heeling and creating downwards thrust the way a traditional fore/aft rig's mainsail will.

This can be very advantageous because it creates lift that translates to righting moment. There's still forces trying to heel the boat, but between that lift (that is located mostly to leeward of the boats centerline) and the very low rig height and weight aloft compared to a traditional fore/aft rig, it can make for a much more forgiving boat in high winds.

This windward cant is part of how windsurfers manage to stay upright while developing lots of lift/thrust.

That isn't to say that this kind of rig is perfect, and this one in particular is very complicated and looks very heavy as a result.

FWIW a very similar rig was developed by Euell Gibbons, although his was optimized for proas and the lower end of the yard kept attached to the bow rather than allowed to fly like a kite-

<https://proafile.com/multihull-boats/article/proa-rig-options-gibbons-rig>

-but you can see that it is virtually the same form, just different controls.

This is another configuration that tacks over-the-top and flies like a kite, in this case like a delta kite or Rogallo wing-

"It consists of a very short main mast with the narrow triangular sail suspended above the mast by a cross arm with a rotating universal head that allows the sail to be rotated from side to side directly over the main mast.

The great foil shape, the vortex lift and the lower center of effort can really produce some powerful and fast sailing."

<http://www.holopunicanoes.com/hss.html>

One general disadvantage with all of these rigs is the width of the sail when in the middle position, that could get in the way in close quarter tacking on most boats...but the width of a tri makes that far less of an issue, as does the delta wing shape.

Here's another tri with essentially the same rig, from an older post on this blog-

<http://smalltrimarans.com/blog/inflatable-trimaran-with-claw-wing-sail/>

**Dutchy**

December 3, 2018

Hello Ian,

"This windward cant is part of how windsurfers manage to stay upright while developing lots of lift/thrust"

I have been windsurfing for many years and indeed when you start, stepping on the surfboard with the first foot, you heel the sail extreme to the windward side. Because of the windforce right up, this helps you to get up te board.

My remark on this is that when you start with a windsurfboard you choose a direction going broad reach. After you change direction going beam reach or even close reach, having the sail still heeling to the windward side, will not be as effective as on broad reach. The effective sail area, that helps you go forward, will be largely reduced and the large lift up will fly the forward side of the surfboard or vessel to the lee side, so you will loose control in stronger winds.

Secondly, when you look at the actual windforce-vector of the zephyrsail, it will concentrate at a point right above the leeward side of the trimaran.

Also the force that will move the trimaran forward will not be above the centre of mass. This all will not be that effective.

Ofcourse I could be mistaken, but I have not seen any video footage yet proving me wrong in stronger winds.

**ian**

December 6, 2018

Hi Dutchy,

Your comments about windsurfer sails are correct as far as the effective sail area being reduced by extreme windward cant, but at the same time in very strong wind conditions there is almost always some degree of that windward cant going on...at the very least you never see windsurfer sails being held in a manner that replicates the extreme leeward tilt induced in traditional stayed mast rigs when the boat heels.

Point being that the former does have some benefits while the latter is more of a negative...even if a windsurfer sail could be made to cant to leeward that way without the rider falling off, it wouldn't help anything and would be at the expense of any beneficial lift produced by a windward canted sail.

There is some benefit to a traditional stayed fore/aft rig spilling wind in gusts and de-powering as the effective sail area decreases, but that happens at the expense of the boat itself getting closer to capsizing- canting the other way does the same thing as far as reducing effective sail area but the spilled wind creates lift and acts to tip the boat upright, not over.

you say-

"when you look at the actual windforce-vector of the zephyrsail, it will concentrate at a point right above the leeward side of the trimaran."

I agree but I see this as a benefit as any lift created to leeward of the centerline at that low level will act to keep the boat upright via the spars leveraging upwards and to windward on the boat, as opposed to the same force being applied up in the air and to leeward on a traditional fore-aft mainsail and acting with the mast as a lever working to capsize it.

"Also the force that will move the trimaran forward will not be above the centre of mass. This all will not be that effective."

Assuming that the boat is designed and set up for such forces I have to disagree...windward canted sails are pretty much the standard for extreme speed sailing where efficiency is key.

The Vestas Sailrocket is a great example; the wing sail is canted to windward like a windsurfer (even more so) and is stepped at the extreme leeward side of the boat...the lift developed by this configuration contributes to performance by un-weighting that part of the boat and is so abundant and creates so much leverage against normal heeling that it lifts that leeward part of the boat completely out of the water-

<https://www.youtube.com/watch?v=sZVlj5TUSKE>

For what it's worth here's a video of a world record windsurfer run; you can see that while the high winds bend the upper part of the mast to leeward, the cant angle below the boom is decidedly to windward-

<https://www.youtube.com/watch?v=0Cp4DrTLN9E>

Again, that lower section of sail is generating lift that helps to effectively un-weight the board/rider and helps the boat go faster even though that lift occurs at the expense of total thrust developed....as the old saying goes, to go faster with the same power plant you "add lightness".

Obviously these are both extreme examples and not trimarans (and windsurfer rigs are a special niche too due to their ability to cant fore/aft to extremes), but the same principles can be exploited on a tri with a properly designed canting rig, which unlike the Sailrocket can sail on more than one tack...

that said, the Zephyr boat and rig appear too heavy and complicated to do so to any great advantage, but that's only based on limited observation.

The Horizontal Sailing Systems style delta-shaped rig on the Holopuni OC-3 double outrigger is in my opinion a better configuration if only because it is lightweight and simpler, but that rig still requires a fair bit of knowledge and finesse to balance out the various forces at play for maximum performance, or even moderate performance- not unlike a windsurfer rig-

"... it takes a real understanding of sail aerodynamics to get the most out of this rig...It is not for beginners..."

here's another example of this rig (aka a "tacking crab claw")with performance notes-

[http://www.multihull.de/story/st\\_panama1gb.htm](http://www.multihull.de/story/st_panama1gb.htm)

**Dutchy**

December 11, 2018

Hello Ian, Thanks for you comment. Nice to talk about this stuff.

Yes, canting the sail to windward side is very effective when you go on broad reach like you mention the sail rocket and max speed runs with surfboards. I agree on this. In fact, next spring, my "woodmax"trimaran will have the option of canting the rig to the windward side.

Yes the lee-ama could be lifted on the Zepyr, this will put the centre of mass at the position of the vaka, while the windforce of the sail will react above the leeward ama. This is like pushing a filled heavy garbagecan to the road not standing right behind it, but being more on de right side while pushing. Not effective.

I suspect the Zephyr will be good on broad reach but not that great at beam reach of close reach.

On the two videos of the Holopuni OC-3, which are great to watch by the way, they are sailing with red straight up sails, not with the Horizontal Sailing Systems style delta-shaped rig. I think the delta shaped rig could only give better performance on broad reach. And be honest, most of the time we are sailing close reach or beam reach.

"... it takes a real understanding of sail aerodynamics to get the most out of this rig...It is not for beginners..."



Absolutely agree..

PS. did you see my model trimaran (learned a lot from it)

**ian**

December 14, 2018

Hi again Dutchy,

I'm also glad to have the discussion. Just to clarify a couple of points-

"Yes, canting the sail to windward side is very effective when you go on broad reach like you mention the sail rocket and max speed runs with surfboards."

It's not easy to picture if you are not familiar with these kinds of rigs and the one on the Zephyr is less than optimal in this regard, but when properly designed these rigs can be trimmed so that the sail is nearly vertical...in the case of the delta style (HSS) sail the result is (or can be) very much like a lateen sail rig, with only minimal (maybe 3-5°) cant to windward.

This would be the optimal configuration for upwind sailing and/or in light airs, maintained by keeping the tack of the sail (where the two "boom" spars meet) close to the deck with a downhaul. Since the delta sail can be made completely flat with no built in draft (spar bending will induce it), this configuration can perform to weather much like a lateen and/or other uni rigs, maybe even better with low stretch fabric and "sprung" boom spars to keep it flatter.

With the downhaul tight and a pivoting mast, the sail sheets in and out and acts about like any other uni rig and stays vertical...keep in mind that on a multihull high boat speed and a resulting shift in apparent wind often means that all points of sail eventually become a close reach or close hauled.

As wind speeds/gusts increase to reefing conditions the tack and sheets can be eased to let the sail go more parallel to the water and present less effective area to the wind (even to weather), with excess power being converted to lift, but still developing thrust.

It may seem impossible that a sail at that angle could make way to weather, but it's like a bird gliding into the wind by adjusting his wings to take advantage of the wind's inherent power and redirect it as a combination of lift and thrust.

The extreme low power adjustment would be the sail/spars perfectly parallel and level to the water surface and presenting virtually no cross sectional area or in common terms "feathered", developing no thrust or lift.

"Yes the lee-ama could be lifted on the Zephyr, this will put the centre of mass at the position of the vaka, while the windforce of the sail will react above the leeward ama. This is like pushing a filled heavy garbage can to the road not standing right behind it, but being more on de right side while pushing. Not effective."

You need to keep in mind that even when canted in the middle of its range the sail as a whole is still attached to a lever (the mast)and still generates heeling force overall to the hull(s), it's just that the portion of the sail area to leeward of the mast (roughly 50%) is generating much less leverage to flip the boat due to lift being leveraged upwards against the mast. With enough wind the boat could still theoretically be capsized.

Also consider that the sail area to windward of the mast/centerline is also developing thrust, not just the leeward portion so there is a balancing force being generated that makes the trash can analogy less that accurate...

It's also worth considering that even in a typical fore/aft rig 100% of the sail forces are developed to leeward of the boat centerline on practically all points of sail, and more so the more the boat heels. A Laser or Finn or catboat going downwind or on a port broad reach "is like pushing a filled heavy garbage can to the road not standing right behind it, but being more on the right side while pushing" and those are typically some of the faster points of sail...boat design (primarily mast placement)and helm input are more than capable of dealing with all but extremely over-canvassed situations.

"I suspect the Zephyr will be good on broad reach but not that great at beam reach of close reach."

As I mentioned above, most performance oriented multihulls make their own wind to some degree so some of this thinking may not always apply...I've tested the delta shaped rig on models and the rig does well on most points of sail and is particularly powerful on a beam/close reach, taking on an orientation and shape that is very similar to a large headsail (but flatter), which again is always generating power on one side of the boat.

"I think the delta shaped rig could only give better performance on broad reach. And be honest, most of the time we are sailing close reach or beam reach."

This may seem intuitively true but I assure you it's not...I think to fully understand why you need to see the rig and the angles involved firsthand on those points of sail and understand that it isn't incapable of being trimmed to a near vertical static position (if need be) that can be maintained with proper sheeting in so that it is oriented like a typical lateen or uni rig sail (keep in mind that the delta can be a nearly 90° angle rather than the more acute angle on the HSS rig).

Part of what makes it complicated to use is that unlike nearly all other sails the delta sail can be deliberately made to rotate on every available axis, and more than one axis at once....still pictures (and interpreting them based on knowledge of other rigs and sails)tend to imply a far more rigid set of trim parameters than truly exist.

For what it's worth, here's another application showing this kind of sail in operation on various points of sail and the various ways it can be deliberately oriented, including backwinding it (pardon the terrible wind noise and music)-

<https://www.youtube.com/watch?v=nHoUhlps-4&feature=youtu.be>

"PS. did you see my model trimaran (learned a lot from it)"

Yes I did and it's very neat...models are a great way of testing all of this theoretical stuff and the main reason why I am a big believer in the delta rigs potential.

**Dutchy**

December 18, 2018

Hello Ian, thank for digging in this stuff!

about aparant wind, yes this changes when you are speeding up, but I meant the direction of the vessel hulls. About better performance on close reach or beam reach. I think (seeing video again) this is because on these direction on the video the trimaran is slightly canting to the leeward side. So the centre of friction (wet surface area) will be going also to the lee-side. Because of the centre of sailforce being on lee-side this works just fine in this moment. However I wonder what happens in changing wind (gusts) when the trimaran will continuous change heeling and thus changing centre of friction. In theory one should compensate with the rig to avoid this (what a windsurfer hanging out is doing with his aftward arm. But in practical I doubt if this is possible.

I am curious about your models, do you have foto's or vid's from this ?

PS. Do you have a trimaran on the smalltrimaran site too ?

**Doc**

April 11, 2019

So tired of seeing boats that do not exist and likely never will.

**Small Tri Guy**

April 11, 2019

We know at least one of this model exists (or did exist) ... right? The question is, was there a market for this craft? I think it's nice to see what others have created though because it might provide someone else with an idea or two that they can use on another boat.

**Chris**

April 11, 2019

Believe it or not, no, we don't know that the boat in queation really exists as advertiser. Pictures can lie and seeing as the website has almost no info, this boat could be as viable in the real world as Howard Hughes's infamous Spruce Goose.

I do wish people would wait until they actually had something to sell.

By the way, you responded to me before anyone at the company has..!

# V Foil Flying in California

November 29, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: foiling trimaran, v foil trimaran

## Comments

### Dutchy

November 29, 2018

Yes the name of his trimaran is "Broomstick". There are more video's on youtube about how he made his trimaran and about what materials he uses. Doug Halsey did a really good job here. It is partly because of him that I started making foils on my trimaran "Woodmax". If you are interested in more video's just google for "broomstick".

### Small Tri Guy

November 29, 2018

Thank you for more details Dutchy ... especially how to view the YouTube videos featuring this boat.

### Dutchy

November 30, 2018

Hello all,

Note that he does not use ama's at all !!

As he commented on this, he told that he just wanted to try this out and found out the the reduction of weight was very positive. His tri lifted much better out of the water.

For far best video google for:

"Broomstick Sailing at LakePerris"

This is really awesome.

### Small Tri Guy

November 30, 2018

Here is the video link Dutchy is referring to (just above) ... it's for a video posted on the Vimeo video platform: <https://vimeo.com/104854385>

### Small Tri Guy

November 30, 2018

Thanks Stefano and Dutchy!

### Otosj

December 1, 2018

This is what they call: "God's Speed"! And it surely must feel heavenly! Beautiful boat which still has the rough looks of being half an experiment, I love it. This is more impressive than the America's Cup multihulls, this looks so much faster and exiting.

But this is also proof of how much resistance there is in shape and friction between the hulls and the water. Amazing.

### Dutchy

December 1, 2018

Hello Otosj,

"But this is also proof of how much resistance there is in shape and friction between the hulls and the water"

You could not be more right about this!!!!!!

This is also my conclusion. Note however, in the second video, he has added very small amas (just for safety I guess).

Because the wind is not always this strong my next question is: how do we make foils that help us to give some lift in strong winds and also act like perfect rudders in slow winds?

Anyone?

### Hans Schipper

December 2, 2018

Great video's and great speed with a basic looking boat! That is a good combination. What strikes me is that the lake surface is very flat with a very constant wind. This works anyway perfectly at half wind. In the Netherlands we often have a gusty wind with which you think you have more crushy moments as Dough calls them.

Twenty knots or more! In harsh conditions you should consider wearing a helmet at such speeds, just as they do at the Australian superfoilers.

### Dutchy

December 2, 2018

Hello Small Tri Guy,

In my latest comment I did not express myself in a correct way. My question should be :

"How do we make foils (side foils and rudderfoil) that help us to give some lift in strong winds and also act like a perfect rudder and/or perfect leeboards in slow winds?"

Sorry for the inconvenience..

Dutchy

### Small Tri Guy

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

December 2, 2018

No problem at all Dutchy :-)

# DIY Hydrofoil Small Trimaran

November 30, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: diy hydrofoil small trimaran

No Comments

## Windrider Neck Gaiter (Christmas gift for all small tri sailors)

December 1, 2018

Categories: Small Tri Info - All

Tags: windrider-neck-gaiter-ufp-facemask-

No Comments

# Multihull Gathering in New Zealand (a few weeks ago)

December 4, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Delaveau Multihull Design, Graeme Delaveau, Nicky Cruz 25 trimaran

## Comments

**Stefano**

December 11, 2018

Hello and wellcome back again! ... I am really taken by the 7.5 and even more by the 8.5 concept (no pics to see of the latter). However, all boats are shown from outside, while I would be interested also in interior accommodation. Namely if there are berths up front and or under cockpit benches.

Thanks , Stefano

# Model Trimaran Foiling

December 6, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: woodmax trimaran

No Comments



# Richard Woods on “Kayak style” Sailing trimarans

December 13, 2018

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Richard Woods, Richard Woods trimaran

## Comments

**Alg Bennett**

December 14, 2018

Hi,

I've got a heavily modified CLC Sport Tandem kayak which is nearly 22 feet long with outriggers, the Mark 3 sailrig, an RS200 jib (best mod by far) and added trampolines and it is brilliant for what we want.

<http://smalltrimarans.com/blog/clc-double-outrigger-kayak-with-mark-iii-sailrig/>

<https://www.youtube.com/channel/UC3evMZcrGGGCWwonCBHOuHQ/videos>

When it is windy we can sail, if not or we simply want more exercise we can paddle. Yes I wouldn't sail it in big waves but we've paddled it some rough surf conditions and it is a fantastic boat.

I'll be making some further mods so it can be easily single-handed from the tramps and it is so light I can put it on and off my car roof by myself.

The Sport Tandem mashup is a multi-purpose boat that does both things very well within the design parameters. If it came to paddling my kayak 20 miles or a strike 18 20 miles I think we'd win by about 10 miles....

But if we were sailing 20 miles in a decent breeze the Strike would win by 10 miles.

I doubt the strike can be single handed on to the roof of your car though...

**Robert**

December 14, 2018

Can't say I like the tone of Richard Woods blog, seems a bit defensive. Yes, a sailboat has features that a sailing kayak lacks. But a sailing kayak is a different beast than a sailboat, tri or otherwise. A Windrider 17 is not a sailing kayak, it is a heavy, durable, inexpensive sailboat. Sailing kayaks are slower under sail, can be wet, and the skipper is often stuck in their seat. But they are also light enough to drag across the intertidal or cartop, relatively inexpensive, and most importantly can be efficiently paddled or driven with a Hobie drive.

**Ian**

December 15, 2018

I think in this context “kayak style” refers more to the cockpit/deck and seating arrangements than it does a more traditional Arctic kayak hull or modern analog that is then outfitted to sail, which the Windrider is not.

Personally I agree with many of the comments regarding fixed seating in a form fitting cockpit regardless of propulsion, especially when it comes to docking/beaching and emergency situations where you might need to move or even jump ship quickly...the slower pace of paddling usually allows for a bit of reaction time in a kayak, but if you are in an area where faster boats are operating your own boat speed might not matter.

Things like speedboats and jet skis running you down were never an issue when the arctic kayaks and related design elements like tight cockpits and spray skirts were developed. Paddling them in remote places can be wonderful but in populated areas with powerboat traffic I always feel like something of a sitting duck in a traditional kayak.

Their hull shapes were created to be easily driven and efficient under paddle power, and as an adaptation to the scant materials at hand that could be used to build boats in the arctic. Decks and cockpits developed in part to work within the constraints of skin-on-frame construction and also to optimize the boats for safe travel in extreme cold and rough weather.

All that makes them particularly suited for quick, light and inexpensive builds and adaptation to stitch-and-glue sheet good construction and also makes them generally very capable in all kinds of weather/sea situations where other small boats might be in trouble, but typical arctic kayak traits like very fine low volume ends, low freeboard and extreme tumblehome make them poor candidates to be driven harder and faster than paddling speed, the way many trimarans are intended to be operated.

The low freeboard and extreme tumblehome also make them more difficult to fit with akas that have enough water clearance to avoid making them even wetter in use, and that allow for safe heeling to fly the windward hull...the margins are very small.

So while the more traditional styled kayaks may make a lot of sense in certain situations and can certainly be made to sail safely, in many cases those hulls aren't the best platform for modification to outrigger systems and powerful sail rigs they were never really designed for, and the ones with traditional decks and cockpits may be ill suited for use in areas that don't see the same rugged weather/sea conditions they were developed for.

I see them sort of like Jeeps in that respect- a Jeep \*can\* take you to the grocery store or out to the opera or can be used to move furniture or lumber, but many of the factors that make them the best vehicle for what they were designed for aren't optimal for those uses...and if you try to optimize them for those non-traditional uses they often become far less useful as compact utility vehicles with off-road capability.

Same goes for trying to make them go really fast with big powerplants- it can be done but like kayaks they aren't particularly forgiving to begin with when it comes to handling, and become less so very quickly when overpowered.

That can be fun and sporty if you know what you are getting into, but handing the keys to an unsuspecting newbie is a recipe for disaster.

**Dutchy**

December 15, 2018

I agree with Robert: why take down "kajak sailing". It is an easy and cheap way for people to sail, who do not have the time or money to build their own sailboat hull. Besides some disadvantages like sitting in front of each other (I agree) it also is mostly lightweight, easy to transport (cartopping) an versatile (paddling). I personally applaud these people who also enjoy sailing. Let it be..

About comparing the windrider 17 with the Strike18, one would have to know some more information. Total boatweight (people including) and total sail area is important to know.

Further on: would the Strike still be faster when wind is going up to 20+ knots ? I wonder.

Kind Regards,

Dutchy

**Thom Davis**

December 16, 2018

I owned and sailed a triak for 5 years and an F242 trimaran for 12 years. Completely different beasts. Agree completely with Richard's assessment of kayak trimaran flaws. Sitting in one position for hours is not comfortable for hours on end. Not being able to move is the largest drawback for these boats—not just for human reasons...you can't move your weight to help keep the boat more level and if anything goes wrong, you can't get to what's messed up to fix it and continue to sail. From a hull design perspective, the kayak hull will not allow you to go too fast since it is a displacement hull. The Triak, though, had its charms. Sitting in the water made 5 kts seem like 10. Most important, though, it was VERY QUICK to go from not sailing to sailing. Was also nice not needing a motor. Also sailed a Windrider 17...concur it is not completely a kayak tri; but it doesn't point worth a darn, you are still stuck in a cockpit but you are far enough away that you don't get the sitting in the water effect that makes you seem to be going faster than you are. Plus, you can't really paddle it. All three are good ways to go sailing. If you want to move around in a boat, don't get (or make) one that makes you sit in one spot. I now own a searail 19 but miss how fast the triak was to get from not sailing to sailing.

**Scott**

December 20, 2018

Another designer has said that gunwale/trampoline is preferable because even though tris heel less it still can be an uncomfortable cant with prolonged forward seating.

# Canoe Plus Expandacraft Outriggers Plus Motor

December 20, 2018

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Expandacraft. Kayakbuddys

No Comments

# First Year in Review of SeaRail 19

December 24, 2018

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Searail 19 trimaran

## Comments

### Dutchy

December 24, 2018

Hello Thom, Dutchy here, thanks for sharing these video's. From what I have seen the Searail behaves balanced, stable and in a calm way going fast. You say that going from trailer to sailing takes more time than you are used to. What is it that takes the most time ? Is it putting the mast on or ....

### Thom Davis

December 24, 2018

Dutchy, one issue is the spinnaker. It has to be rigged on the hard since there isn't any foredeck and there's no way to "fix" anything if you screw it up while rigging on the hard. That probably takes a half hour longer than my F242. Also, I pretty much have to raise the mainsail while tied to the dock since it takes longer than my old F242 and (since no autohelm), I am not willing to try to hoist while sailing (I did try a couple times...can't seem to keep boat moving head to wind long enough to get mainsail fully up-since self tacking jib won't let you "park" with just jib up).

### Dutchy

December 25, 2018

Hello Thom, about the spinnaker, I understand that it is connected far in front of the boat at the spinnaker boom. Looks tricky to get there. Is it possible to make the spinaker boom telescopic so you can decrease the distance and reach for the spinnaker connection better ?

About the main-sail raising while sailing (head to wind) I wonder why you should consider this. Why not doing this while still tied on the dock?

PS. I hope you still can enjoy this great trimaran

### John bartlett

December 26, 2018

No need for new forestry just lengthen what you have with a few

Turns of line, turnbuckles are obsolete, lime wrapping plenty strong

And much cheaper, good luck.

### Thom Davis

December 26, 2018

Dutchy, sorry, I was unclear. I DO hoist the mainsail while tied to the dock. On my former boats I did it while motoring. Related to the spin boom (bowsprit), a telesoping one would be possible with some major modification to the cabin inside, but an easier option would be shorter bowsprit. I considered it since I see little reason for a 5 foot sprit. I'd have to make a little smaller spinnaker, but that's not a big deal. But I'd still have to rig while in the parking lot. What could save a lot of time would be to switch from roller furler to snuffer or do a bag launch and retrieve from the nets. BUT, single handing is what I do most...so the ease of roller furling is important since no autohelm.

John...trouble with using a line extension on the forestay is the jib is roller furled. The line would probably not allow enough anti torque to get the jib completely re-furled or you'd have to preload so many turns that it may not completely unfurl when you want it-Sure, I could convert to a continuous furler and might do so someday. I only need six inches or less...couple long bow eyes or rings will do it.

### Paul

December 28, 2018

@Thom - I recently picked up a Trikala 19 trimaran that needs work and have been watching your videos (and other 19-ish foot tri videos) trying to pick up tips on how best to rig my boat. Like you, I will also be singlehanding the boat so your insights are very helpful. Two things I'm looking at doing which may interest you: one is to replace the luff tape mainsail with slugs, so I can rig the sail at the dock and more easily hoist when underway. I may also add a topping lift to the main so the boom doesn't drop to the deck when I douse the sail. This may cause issues with the square top main so I'm undecided on whether I'll do this or not. The other thing I'm thinking about adding is a tiller pilot. I haven't decided how best to mount one but it's on my to-do list.

### Thom Davis

December 29, 2018

Paul, my mainsail came from the factory with a luff tape that was too large. The replacement came with an oversize luff tape as well...so I did what you plan to do and put in slugs. It worked well that way but I recently sewed on a correctly sized luff tape.

On my old F242 when I single handed a lot, I got rid of the topping lift (and the lazy jacks) for simplicity and to avoid more foul potential (I raced that boat a lot). My current searail has no boom so a topping lift is not necessary.

Tiller pilot is a nice thing to have-especially if racing. Problem with it is you have to have battery and (it seemed to me) always ran out of juice when I needed it most during races (the singlehanded sailing society allowed autohelms during single handed races)). What I have done on this boat is rig a small line from the tiller to the float, up to the forward beam (block), across the boat to the other float (block), aft to the aft beam (block) and back to the tiller. So any place on the nets is a good place to steer from. If you have crew, leave them unattached, though since crew always seem to want to sit on the line which keeps you from steering.

Good luck...feel free to get in touch with any other questions (just comment on one of my videos).

**Simon Kay**

May 12, 2019

I have just acquired an old and beaten up daysailer, made by a Dutch company called Sailhorse.

It is of course a mono at the moment, but with the lifting keel switched out for a simple dagger board, I am hoping to convert it to something very similar to what you have.

Just trying to figure out measurements for the amas etc. It is 20 foot long with a 6 foot beam.

You have inspired me, thank you.

# Mission: Go Surfing in a Wavedar 16 Trimaran

December 28, 2018

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Wavedar 16 Trimaran

## Comments

### Otosj

December 28, 2018

Somehow I always get a tear in one of my eyes when I see someone building by guts instead of wisdom, experience, skill or education. There lays a sacred spark of true life in such!

But apart from that, what a great idea! Just ignore everything and go on with your goal to create a boat that suits your needs: Sleep in it like a baby, Sail like a surfboard. Fit it to such as "no larger then strictly needed" add some KISS (Keep It Simple), and there is nothing like this as far as I know and just that can hit the spot.

By definition multi-hulls are stable, fast, light weighted etc, but that is what we all already know. What you present here is a next level. A new idea of what a boat should be.

Good luck!

### dutchy

December 29, 2018

Great enthusiasm, great idea, I like it. However this does not guarantee a great boat. There is a lot to consider. (strength, weight, scoop, rocker, amount of V, sailarea, position of the ama's etc.)

Please do learn from all the boatbuilding images on "smalltrimarans.com"

I would hate to see you disappointed.

I am curious about your further building process.

### Otosj

December 29, 2018

Dutchy, I know you are right. But sometimes one gets only improvement by ignoring some traditional common sense and be a bit naughty.

Today's sailing hull shapes are the result of someone pulling a traditional sailing hull in reverse through the water only to find out that it was faster (somehow midst 19th century). And who did not had an opinion in the 60's about a bloke who dared to cross the Atlantic Ocean in a sailing double canoe? (That bloke as James Wharram in his first catamaran).

### Thom Davis

December 29, 2018

Happy to see you are having fun with the concept and build. An off the shelf boat (windrider 17) probably would do close to what you want if you fit a canopy over the driver. It has the added advantage of being rotomolded so it'd beach with little worry about breaking something and being stranded on the islands with no means of getting home.

### Hans Schipper

December 30, 2018

You will have the most original outcome when you start to build a boat in this way but I would prefer to stand on the shoulders from the boat builders before me. And smalltrimarans.com is a good place to make that start. Your design reminds me of the Swedish sailor Yrvind. Yrvind is in no hurry on his trips. But in his sailing life he has learned to prepare thoroughly for what the sea can bring about. On his site you can see how to make waterproof shutters that you can open from the inside. It also shows which development you can make and when you do that in an original way you also come to original places.

I would only forget that the boat is going to plain. I made that mistake in my design of the cool finn

Narrow long hulls for speed and when you combine them with wing profiles, the boat can plain. I like how you show how open-minded you approach it!

### Small Tri Guy

December 30, 2018

The website of the famous sailor Hans mentioned above is here: <http://www.yrvind.com/>

### Brandon W.

January 3, 2019

Sweet idea, I really do like it, but like others have said, you can learn a lot from other's mistakes. Read "Racing and Crusing Trimarans" by Robert B. Harris. He has some critiques on what worked and what didn't with some of those earlier wooden designs, it may be helpful to you.

I use my Cross 26 for the exact same purposes you speak of, exactly! In a multihull of that size you need to be a full on weight weenie and from experience cargo weight adds up quickly. Even with the KISS mentality, the essentials will weigh you down way more than you think; 2 dudes, 4 boards, 2 wetsuits and towels, food and water, camp stove, cookware, ice chest, outboard, gas, anchor setup, etc. The flat bottom should help to distribute weight, but flat bottoms pound! The Santa Barbara channel can kick up some real weather and a heavily overloaded multihull can be dangerous. Also those islands are a very rocky place and I'd be a pretty nervous putting my boat up on any of those beaches.

I apologize if it sounds like I'm trying to rain on your parade, that's not my goal, I just want to make sure you're safe. Good luck on the project and I look forward to the final outcome!

# Building Stages of the Trika 540 Trimaran – O-Vives

January 3, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Trika 540, Trika 540 trimaran

## Comments

**ROBERTO SOERENSEN**

July 16, 2021

Que lindo! Consegue orçar bem? A que velocidade já chegou?

# Anchoring Multihulls (Article)

January 10, 2019

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: anchoring, anchoring multihulls, John Marples

## Comments

**ian**

January 13, 2019

My recommendation (gleaned from many years of anchoring all kinds of vessels from dinghys up to 70'+ powerboats in all kinds of bottoms and weather/sea conditions) is to begin by forgetting the idea that safe and secure anchoring is about hooking into the bottom and holding on under tension like hooking a fish on a line...that is a worst case scenario that is the last step before dragging.

In my experience, the best ground tackle for any boat that will depend on it while unattended (ie typical cruising/liveaboard situations) is an adequately sized anchor that is suited to the typical bottom conditions you encounter, and *as much and as heavy chain as you can possibly stand to have on board and deploy*. If you want to add extra weight to the suggested minimums for a margin of safety, add it to the chain portion of the rig, not the anchor.

The reason for this is that with enough weight/length in the rode section of the setup, the chain by itself can and will hold the boat more or less stationary in all but the most extreme conditions, due to its total weight but also due to the friction encountered whenever the boat tries to drag it over the bottom.

Imagine a 50-100' length of heavy chain laying on the ground in a lazy sine wave-like curve...the closest section of that curve might be relatively easy to pull into a straight line but the farther away from the source of the pull you get, the more you are working against friction and inertia and if the chain is heavy/long enough you might not be able to pull more than that initial part of it straight, let alone drag it around, without expending a LOT of energy. If you did this exercise on a sandy beach or a mud flat there would be immense friction involved and it is possible that no tension at all would ever get to any anchoring device on the far end of it...

and this is all while you are standing firm on fairly solid ground, not standing on a floating boat designed for minimal resistance.

When using adequate lengths of all or mostly chain to anchor, this is often exactly what happens- even with powerful motors backing down to "set" an anchor and a firm jerk at the end of the process appearing to signal that the anchor is hooked, it is common to find on visual inspection that the chain goes out straight for a distance and then begins to meander, and that the anchor may have barely bitten into the ground or in the case of plow style anchors may still be laying on its side because the chain was never pulled straight and all that resistance was in the chain alone. This is often true even when a stern anchor is deployed and the boat is ostensibly being held in tension between the anchors.

Add in the effect of any catenary developed as boat pull increases and tries to lift the dead weight of the chain, and especially with a lightweight boat there's little chance of anything moving at all.

I've ridden out storms in open roadsteads on boats weighing 20-40 tons where it seemed certain that the boat was yanking directly at the anchor as it pitched violently in the large swells, and that something was bound to break at any moment from the repeated slamming...only to take a dive later and see that despite all the noise and strain, the anchor chain was never even straightened out completely...what little apparent "dragging" had occurred was simply the portion of the chain near the boat being pulled more straight along with some lifting of that portion allowing the boat to move back slightly...no tension at all ever got to the anchor.

For all of those reasons, unless weight is a critical factor (like a race boat) for any kind of longer term anchoring setup I would recommend doubling the minimum chain length to twice the boats length, and would also up the chain link size on all but the smallest boats.

For example, my Cross 24 had a 16 lb Bruce and 50' of 5/16" chain (roughly 60 lbs by itself) as its primary bow anchor and spent lots of time anchored out in both protected anchorages and at surf spots where it regularly encountered large almost breaking swells...those were nearly all muddy/silty/sandy or rock reef bottoms and the only time it ever moved significantly was during a major storm when I happened to be anchored in an area with lots of eel grass, that tends to both repel most kinds of anchors and is slick like teflon so offers little resistance to the chain sliding.

The other reason for doubling the chain length is that especially in a small tri a lot of typical anchoring can/will be in very shallow water...so in many cases with my 30"-ish draft Cross and 50' of chain I could achieve a 5:1 or more scope with all chain and then add a short nylon snubber or bridle if I needed the shock resistance. If I had to add line in deeper areas or in high winds, if at all possible I would deploy enough so that all of the chain could lay on the bottom for maximum friction and to minimize any pull on the anchor itself.

About the only downside is that the deeper the anchor system is deployed, the more dead chain weight you have to lift (plus the anchor when it gets to that point)...so if you regularly anchor in places where you will have more weight hanging than you can lift by hand you'll need some kind of windlass, or at least an extra hand.

I'd be interested to hear why John doesn't like the Bruce for long term anchoring; I found it to be a great anchor that worked better than most when swinging in tides and other currents and had as much holding power for its size as anything else I've used in looser bottoms.

One of those with some big chain and a Danforth for a stern hook and/or kedging is pretty hard to beat for maximum holding power in a small, lightweight package.

**Thom Davis**

January 13, 2019

for most of us on this blog, we beach and tie to a tree.

**ian**

January 16, 2019



*"for most of us on this blog, we beach and tie to a tree."*

Fair enough when you can so readily and safely, but especially if your boating is done in an area where any kind of current is present or potentially present, *some* kind of ground tackle is cheap insurance against a simple breakdown or loss of wind turning into an ordeal, or worse.

Same goes for any place where there's potential for waves large enough to make attempting a beaching unwise, or for extreme wind conditions to come up abruptly, or where larger/faster boats and/or vessels with limited ability to avoid collisions are commonly operated.

I'd also say that on any boat that's big/heavy enough that you can't stop its motion or un-ground it by hand, adequate ground tackle is an important piece of safety gear.

**Thom Davis**

January 19, 2019

I agree that some tackle is worth carrying sometimes on some boats. But on boats like a sailing kayak, you couldn't deploy if you wanted (mebe if you are a contortionist)... Some boats like a beach cat, you don't really have any way of carrying it without it getting in the way or becoming a missile...and, lets be honest, nobody who likes a performance multihull wants to carry extra weight. We probably can agree that some sort of holding anchor is good to have and/or carry for temporary use while waiting for wind if there's some current...but truthfully, those small "fishing" anchors aren't really worth carrying unless you know the bottom will hold.

**Brandon W.**

August 30, 2019

Ian,

Always appreciate the incite! I upped my island chain setup this year because of your post. I couldn't bring myself to put on 50', but now use just under 40' for my Cross 26 and couldn't be happier! I've got another 20' on a fortress for a stern hook/lighter daily setup, but carry both when chasing swell. I've been using the 39' of chain with a 14 lb. delta quick set with great success. I'm a weight weenie and the extra 15' of chain make me feel soooo much more confident.

On another note, I tightened up the backstay on the C26 and that helped alleviate some of the pumping issues we had spoke about. I did install all the deck hardware for a baby stay and jack stay, but haven't done anything to the mast. Still a work in progress. But earlier this week while coming home from the islands, with a fully loaded boat, we got it going 12.4knts on the way home. Not too bad for a 47 year old boat!

# Windrider 17 for Sale in Florida

January 16, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Windrider 17 trimaran

## Comments

### **Thom Davis**

January 19, 2019

My neighbor had a WR17 and I fitted it with a spin for him. Made the boat more fun downwind. My knock on the WR17 is that it can't point worth a darn. Of course, I sail where there is often wind coming from the same direction as a 2 kt current, so pointing is very important. If you lake sail...great boat. Safe, easy to rig, quick to go from trailer to sailing, inexpensive, rotomolded plastic so don't even need fenders.

### **Lee Bullock**

November 24, 2019

You commented on "can't point worth a darn",,,

Have been do'n Multihulls since 1971,,,

Started "Sausalito Multihulls" in 1979,,,

Have been underneath, inside & on top of 100's of models every year for 9 years,,,

When someone can not seem to point into the wind with a Multihull,,,

It's usually a "Lack of Skill" of the person, not the Multihull,,,

Have never not been able to "finesse" any Multihull to point as high as a Mono-hull,,,

While "Demo'n" a Windrider 17,,, we were able to hunt down anyone we chose to...

Perhaps you might take someone with you that understands how to do Multi's,,,

### **steve**

March 30, 2022

Ha!

Just saw this. Multihulls can point - its a different technique than Monos

# Catri 24 Trimaran for Sale in Maryland

January 16, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Catri 24 Trimaran

## Comments

**Thom Davis**

January 19, 2019

He's offering this boat at a really good price. I'd be tempted were I on the East coast and didn't already own a SeaRail.

**Hans Schipper**

January 28, 2019

Experimenting I came up with the same concept as the Catri. A tri that derives its stability from the foils. Unlike the Australian superfoilers, you will not be launched at the moment your boat falls back into the water.

And yet very respectable speeds. So for sailors who do not want to practice extreme sports, this is the perfect combination. Too bad I was not the first one to come up with it ;-).

I wonder what the added value is of the retrievability of the foils? Or is that necessary for folding?

I saw a couple of years back a Catri (I do not know what size) in Makkum (Friesland) with a crashed beam. I learned that the boat had sailed in a wave at considerable speed. With such great speeds, you can not assume that things will stay that way in such a circumstance.

# Piver Nugget for Sale in Santa Cruz

January 30, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Piver Nugget

## Comments

**Dan Fishman**

January 24, 2020

Just checking to make sure the boat was sold..thought I remembered seeing that it was. Thanks for your time.

Dan

# TF10 Trimaran – Designed by Morrelli & Melvin

February 4, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: TF10 trimaran

## Comments

**Thom Davis**

February 5, 2019

I don't want the foils...but I sure would like those rail seats outboard of the floats. I wonder....

# Synthetic Fiber Rigging for Trimarans

February 5, 2019

Categories: Small Tri Info - All

Tags: Dyneema SK75 boat rigging, synthetic rigging

## Comments

### **Thom Davis**

February 5, 2019

I've been using fiber shrouds (side stays, not forestay) since 2005. Even the dyneema or vectran of those years would work but your first sail will have the rig get loose so you have to tighten afterward. While colligo makes some nice terminations, you can also go a bunch less expensive (albeit not as pretty) by using the larger Ronstan Shocks (sheaveless blocks) to create your own terminations and cascades for tightening the standing rigging. On my current boat, that is important since the shrouds must be loosened and tightened for folding and unfolding the boat on the water. You should replace the rigging more often than with steel since fiber will degrade slowly in UV exposure. If you don't know how to make a brummel splice, learn how to do it and you won't ever need a rigger again for your tri—except maybe for the forestay which I still use stainless cable for since my furler has to transmit torque all the way to the top and dyneema won't do that without additional bulk which would spoil the fine entry for the jib.

### **Small Tri Guy**

February 5, 2019

Great advice and added info per your experience Thom!

### **Tom**

February 7, 2019

Thom.... can you write up an article showing pix of those items?

### **Small Tri Guy**

February 18, 2019

Thom shows a couple picture here: <http://smalltrimarans.com/blog/follow-up-to-fiber-rigging-post/>

# Alien Trimaran for Sale

February 13, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: alien trimaran

## Comments

**Mike Schreibman**

March 28, 2019

So far only "tire kickers" but no one who is serious about owning Alien.

If you come and see it you will buy it and I will consider any reasonable offer

Mike Schreibman

**Torleif Lindell**

October 12, 2021

Hello i have felt in love with this small Alien trimaran and i wonder if there is possible to buy plans blueprints?

**Michael Schreibman**

October 13, 2021

the original design was by Camron Chislett. he now owns the factory in Rhode Island that manufactures Maratime Skiffs. he may have the original plans. the modified Alien trimaran was sold several years ago, and i lost track of the buyer. hope this helps

## Follow Up to Fiber Rigging Post

February 18, 2019

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: dyneema synthetic rigging

### Comments

**'B J'**

April 2, 2019

I'm a retired professional cat 'n' tri. builder in east Brisbane Aust. who worked too hard for too long, 'n' now needs help with motivation from anyone who wants to built their own multihull to 8m. or other fibreglass project. Too many boats to finish by myself, so some will be sold, donated or given in exchange for labour 'n' use of moulds. Lots of experience 'n' ideas. I just got old too early.

**Soheb shaikh**

August 1, 2021

I need a rope 6 mm deynex in india is it possible



# James Bond Flies on a Mantis

February 20, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Mantis trimaran

## Comments

### Ginger

February 21, 2019

The economics are that fiberglass boat building is inexpensive and moved boats from the upper class to the mainstream in under a generation- in the 70s, the idea of towing a boat behind the family sedan was not unusual. It was the jetski of the day.

The economics didn't change. The government did. The Socialists imposed a "Luxury" tax in the USA that killed the domestic boat building industry. Now the cost of transporting a boat across an ocean is \$30,000- which is more than a whole boat would have cost if it weren't for these punitive taxes.

The whole california boat building scene died, one by one, and McGregor which was turning out multiple boats a day at its peak eventually succumbed- Even with the economies of scale they achieved, they weren't able to keep it going. And they had to raise prices.

So if ever you wonder why people oppose all these "hate the rich" politics, this is why. This is what hating the rich leads to- middle class being priced out of a good that isn't a luxury, because they can be stamped out of molds quick and cheap.

### ian

February 23, 2019

Just to be clear, the federal luxury tax in question was only on boats that sold for over \$100K...the demise of so many of the companies building/selling those kinds of boats can be directly tied to it, but the effect it had on the manufacture and sale of less expensive boats is less direct....people with little understanding of business don't realize that rather than preventing other builders from setting up shop, major players like McGregor being established in an area make it \*more\* appealing to others in the same business, and make it easier and cheaper to do the work there- it's easier to get materials, find experienced employees, arrange cooperative agreements for parts and sub-assemblies, etc. when there's a robust industry with lots of big players in the mix.

People who think that all business managers and owners are ALWAYS greedy and evil and want to destroy all competition and have a monopoly and have to be kept in line by the iron fist of government don't get that.

Also, big part of what killed the boat building and maintenance industries in CA and added significantly to the costs for new boats there and elsewhere were/are environmental laws and the related activist/enforcement industry that is often more motivated by a desire to keep itself active and powerful (and well funded) than any desire to solve actual environmental problems.

Sadly the costs imposed on so many materials and parts by so much of their "work" affect everyone who wants to build or even maintain a boat (or anything else in CA, really), even if they are restoring an older FRP boat that would otherwise become a burden on the waste stream, and a toxic one at that.

That isn't to say that these activists in both the private and public sector don't also actively target businesses as the result of hostile anti-capitalist sentiment that is so prevalent in CA using environmental restrictions as one of their tools (9000 HQ's and expansions lost in the last 7 years alone), but that's not the entirety of it.

### Thom Davis

March 9, 2019

Axes to grind? Geez, ... Ginger, FRP boats are built one at a time, and aren't "stamped out of molds". IN fact, the moulds (sic) are one of the highest cost items. Ian....FRP boats are made with epoxy which really is a toxic material and is really toxic the more you deal with it. The saying goes, "if you aren't sensitive to epoxy yet, you will be." However, Ian, I do agree with you that CA is a lousy place to be associated with FRP. Actually it isn't the specific industry, it is any industry at all-everything costs more in CA, particularly labor.

### ian

March 10, 2019

Hi Thom,

FRP just stands for "fiber reinforced plastic" and while epoxy and vinylester resins are certainly popular for a number of reasons, they simply are not the only plastic component used in FRP boat construction...for production layups an fabrication of all manner of FRP items including boats, polyester resin is still very much in use, especially where the higher costs and relative flexibility of non-oven cured epoxy doesn't work.

Polyester is falling out of favor for a number of reasons, not the least of which are that it is far more toxic to workers and the environment than epoxy is. I've used lots of both, worked in SoCal FRP boat building shops and repair yards in the wild-and-wooly 70's-80's and while it's nothing to be careless with, epoxy is like marshmallow fluff by comparison.

In a place like CA the related off-gassing of styrene and other VOC's and the shipping/handling/storage costs for the materials and their waste products adds significant costs for anyone who might want to keep using polyester commercially (or who might want to dispose of a polyester based FRP boat responsibly).But even in CA you can still buy and use polyester.

Many companies working with these kinds of materials have simply left the state rather than try to adapt, and like it or not part of that decision has been the result of regulators and activists being less than honest when telling people what they need to do to comply, causing manufacturers to spend untold amounts of money on

environmental compliance only to learn that those efforts never really had a chance of buying them any long term relief, because the real goal was always to make them leave; environmental laws were merely the sharp stick used to make it happen...

if you've never read it, Gordon Clark's open letter concerning the shutdown of the Clark Foam surfboard blank facility in Costa Mesa goes into a lot of gory detail straight from the trenches-

<https://www.surfer.com/features/clarkfoamletter/>

FWIW, while you are correct that molds are quite expensive to produce, the ramping up of restrictions and regulations placed on FRP fabricators in CA and elsewhere over the last 40 years or so and the related exodus to more favorable areas created a situation where for many years it was very common to see very expensive hull and deck molds for all manner of boats going for pennies on the dollar and even being given away...some were retrofitted into working hulls/decks where possible but many ended up in landfills.

In fact, here's a free set that would make for some nice small tri amas-

<https://nwct.craigslist.org/bpo/d/watertown-rare-find-amf-fiberglass-molds/6787493751.html>

Pretty sure they are from the AMF Hilu-

<https://my2fish.files.wordpress.com/2012/01/amfhilu2.jpg?w=500&h=687>

-make what you will of the fact that even a massive corporation like AMF abandoned them and nobody has made a successful enough go of producing them commercially to make the tooling worth hanging onto, and is abandoning them again.

# Tramp Trimaran for Sale (Looking for a New Sailor)

March 1, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Haines Hunter Trailer Tramp Trimaran, Tramp Trimaran

## Comments

**Gerry Couture**

July 16, 2019

Is she still for sail?

**john**

February 11, 2020

Is this boat still for sale?

**James Carlton**

January 15, 2022

Is boat still for sale

# RC Sailing Trimarans

March 10, 2019

Categories: Small Tri Info - All

Tags: rc boats, rc multihull, rc trimaran

## Comments

### Thom Davis

March 10, 2019

Thanks for sharing, Ian. Since you are having a go at making sails, I'm curious as to how much camber you design in, where you try to place it in the sail and how you induce the shape. I make sails for my boats (but my boat is much larger and doesn't foil). I can't imagine working with such small pieces of cloth—since even with large sails the amount of “extra” to induce 10% camber is only mm (2.6% extra cloth = 10% camber) Most of my sails I try for 10% camber which seems to work well in my breezes. I typically do a radial head and cross or horizontal cut for the remainder. Jibs I “place” the camber 33% forward; mainsails at 40% forward (but I have rotating mast—which makes a difference.

### dutchy

March 15, 2019

Hello Thom,

Making sails is not that easy. I myself used the following site: <https://www.mm-zeilen.nl/masterpage/page1.html>

You can see the result on smalltrimarans.com: Search for “Model Trimaran Foiling”

The material I use is called lamina or slat (in dutch we call it “folie”)

I use 3 parts in the jib and in the mainsail. You get flat sails this way, which you need for fast sailing boats. If you have a monohull I would use 4 parts or more for a sail.

Maximum camber at 33% for the jib and 40% for the mailsail sounds just fine to me.

### dutchy

March 15, 2019

Hello Ian,

As usual I enjoyed your great video's. I see you use the same configuration of mainfoils in the last video above, as I did lately in my video: “Model Trimaran Foiling” (distance of foil sideways to ama).

Are you able to change flowangle, length of the foils and the amount of V ?

Regards Dutchy

PS. My video is very short because of very low temperatures at that time. I am looking forward to make longer/better video's next month.

### David P Wright

June 6, 2021

I would like to know where to buy and have shipped to the United States, a Mini40 One Meter Foiling R/C Trimaran.

### Bill Porps

August 11, 2022

I am interested in a mini40 foiling rc trimaran. Do you have them as a kit or finished boat ? Are they available in the U S.

### Patrick Ryan

September 19, 2022

I have the same question as David & Bill. I would love to buy one!

# An economical, self-built trimaran named AQUA

March 20, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Aqua trimaran sailboat

## Comments

**dutchy**

March 21, 2019

Hello Luis, Great trimaran and using the catamaran ama's the catamaran ama's saves a lot of time and you are sure the ama's are good.

I curious though about the bottom of the vaka: This, in fact, largely defines the way she will sail.

Is it flat ? Has is bevels?

And how about the underwater hullshape ? (how much rocker and scoop does it have )

**Small Tri Guy**

March 21, 2019

There are a few shots of the center hull of the boat on Luis' blog (you have to click on "older posts" in order to see them) that show it being built in plywood. No direct shots of the vaka underneath, however, that I noticed. It appears to have just a flat bottom (and the bottom of the vaka's cockpit has compartments filled with plastic bottles for added flotation, by the way).

**luis perez**

April 7, 2019

I would like to thank Joe for his great website.

hello dutchy and samall tri guy. If you have any questions I will answer you with pleasure.

the trimaran has the flat bottom.Now my job is to give more width to the central hull,to fleet more in the stern,to reduce the weight of the engine and mine.

stop by the blog friends.

forgive my english,I use the Google translator

best regards

**Dutchy**

April 10, 2019

Hello Luis,

Do not worry about language. I am dutch so I probably will make mistakes too.

About your boat. Making it wider at the stern will mean rebuilding I guess. The width of my boat is 60 cm in the middle and 58 cm at the stern. My weight is 101 kg. I use no engine. Maybe you can look my trimaran "Woodmax". There are 2 video's on this site on which you can see how deep it is lying in the water.

**luis**

April 16, 2019

Hello Dutchy,

The width is currently 35 cm and I hope to do it 65 cm.My weight is 85 kilos. I want to give it enough buoyancy to navigate two or three people more the weight of the engine.thanks for the tips Mr. Dutchy.

Regards

# DC3 Trimaran Build Almost Finished

March 21, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: DC3 trimaran

## Comments

**Andrés**

March 21, 2019

It looks great! The fuel tank in the outside seems to be in a better place than in the plans. He is getting a beautiful craft and It would be very nice to see the finished boat in the water.

**Chris Ross**

March 28, 2019

I love the design and it's exciting to finally see one! I can't wait to hear about how the boat sails. Well Done!

**Jim**

March 28, 2019

Thanks Chuck for the update. Can't wait to see more pics, what a beauty!

**Ken Borgers**

April 10, 2019

Chuck,

Wow — GORGEOUS! Would love another visit now that you're almost done. And if you need a hand when the big day comes, let me know!

Ken Borgers

**Rob**

May 14, 2019

Chuck:

I'm discussing build options with John Marples now and would love to see your DC-3. I live in Long Beach and would also be willing to help out with heavy lifting or support of some kind to get a look of the boat and feedback from you.

# A Beach Tri for Racing

March 28, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: beach tri, beach trimaran

## Comments

**Christofer Olsson Kedborn**

May 5, 2019

Hows going! It will be amazingly fast! Very smart using hulls from donar cats. Do you have a blog? Looking forward to see more :-)

Chris

<http://www.chryz10.com>

**rich clark**

August 26, 2019

Hi, it took a while to balance the rig but now it all works :)

It's amazingly fast in a force 4 or 5 because it's 17 feet wide ... it has such power, it has the feel of a really solid boat because of the dolphin strikers fore and aft keeping it all in tension. It's not my perfect boat because I want something friskier and its weight (maybe 300kg) makes it a fantastically steady fast ride. This winter I will sell it and make one weighing 160-180kg, which I currently have all the bits for except a front beam, which I'll make out of ply in the way Richard woods cats beams are made.

**Christofer Olsson Kedborn**

August 29, 2019

Rich, sounds great!

What will your new project be? What hull have you started with?

Whats your design thoughts?

**rich clark**

August 29, 2019

Hi do you want to add me on facebook ? rich clarke (pic of 2 guys in aston villa shirts)

I have a light ali 5m back beam, light ali A class 9m mast, 2 light fiberglass 18 foot unicorn hulls for armas (with boards) , 1 not to heavy hobie 17 hull for the middle (as the mid hull takes all the weight this will be strong enough ) loads of f18 and similar sails spinnaker's , f18 bow sprit and snuffer, 2 nacra trampolines, I may make some hawk surf cat style rudders as they will be the most simple and light rudders I have ever seen and I may add t foils to them, plenty of rigging , with a ply front beam to be made, I have done max and a min weight given the materials land I think it will be between 150 and 190 kg so with a f18 rig it should match the f18 performance in theory at least

# Wa'apa Double Outrigger with New Simple Sail

April 4, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Wa'apa double outrigger

## Comments

**Aaron de Ruiter**

April 4, 2019

Thanks Joe, I will definitely give you a test sail report! I'm hoping the sail will be easier to set, reef and stow so I can be out on the water faster and in almost any wind strength.

**Small Tri Guy**

April 4, 2019

Terrific ... we look forward to it Aaron.

**Thom Davis**

April 7, 2019

I see you seem to have beefed up the akas and added benches so you can use your weight to balance more sail area. Wasn't that a lug sail on the dory sailing alongside in your first video? I hope this works for you. "Traditionally" you'd use a crab claw, which could be fun on the "next" powerup. Nicely done project.

**Aaron de Ruiter**

April 9, 2019

Hi Thom, I always felt the akas would need to be beefed up but not by much. I glued 3mm plywood on the sides of the akas and sealed it with a marine undercoat and a part marine gloss white. Yes, with the addition of the bigger sail I will need to keep my weight outboard in stronger winds or reef the sail.

The ability to reef the sail was a factor in making the switch from windsurfer rig to lugsail. And it's the same reason why I didn't want to go with the crab claw which can be difficult to reef effectively.

**Aaron de Ruiter**

April 9, 2019

I also shortened the amas from 4.7m to 4.2m as they didn't look quite right! :)



# Evolution 340 Trimaran on the Drawing Table

April 12, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Evolution 340 trimaran

## Comments

### **Dutchy**

April 13, 2019

Hello Rodney, nice plan, but total weight of 40 kg, even for a little 3,4 meter long trimaran, will be a big challenge. What materials are you planning to use?

### **Rod Keenan**

April 16, 2019

8mm foam with a 250 gram carbon inside and out

Carbon beams , mast section , and sails because I can

That's the target the boat is tiny but so are my kids

### **dutchy**

April 16, 2019

Hello Rod,

As owner of my last year made boat "Woodmax" I know how great it is to make your own trimaran. Even the failures are fun to work on (learning moments). I am looking forward to the building process of your trimaran on this site.

Kind Regards and Good luck !

Dutchy

PS. Did you ever before make a boat yourself?

### **Rod Keenan**

April 17, 2019

Hi Dutchy

This is about my fifth and by far smallest. Assembling the frames this weekend and will update some pictures.

Still looking for a suitable section for the mast it

Can be pretty light strength wise just the capsize load is the unknown

### **Rod Keenan**

April 26, 2019

Well we have assembled the port side molds of the main hulls and armas.

Now onto the starboard side.

Using mdf for this has been cost effective but wow it is dusty

I think I have found a small carbon mast section that looks like it will work more to come on the sail plan...

### **Tony**

April 29, 2019

Awesome little boat. I own a couple of Bazooka 3.6m Tri's and small is the way to go for fast, easy fun sailing.

They are around 55 kg all up in fibreglass so the 40kg target in your materials sounds achievable.

I will be very interested in your sails. Looking to upgrade my 25 year old design.

Well done.

## R2AK with Liteboat Team's Rowing/Sailing Trimaran (Full movie)

April 18, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Liteboat team R2AK, team Liteboat

No Comments

# Hobie Kayak Sail Kit with Double Outriggers

April 25, 2019

Categories: Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Hobie kayak sail kit

No Comments

# DIY Trimaran MotorBoat for Fishing

May 2, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Trimaran Fishing Boat

No Comments

# Seaclipper 20 Trimaran "Mad Dash" for Sale

May 12, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown Seaclipper, Seaclipper 20 trimaran

## Comments

**David Hughes**

June 27, 2019

Well, I'm now the owner of Mad Dash. I bought her back to Maine on the 20th of June. I haven't had time to sail her yet but hope to soon. I'll let you know what I think as time permits.

**Small Tri Guy**

June 27, 2019

Congrats David ... Yes, please share you experience with the boat to the small tri community :-)

# Wa'apa Under Lugsail

May 12, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: lugsail, outrigger canoe, Wa'apa

## Comments

**Aaron de Ruiter**

May 12, 2019

Thanks for sharing Joe! Something you didn't see in the video was the leeboard coming off during the downwind sail back across the river! I had to turn upwind without it and paddle back to retrieve it, a bit of extra fun to finish off the day!

**Dutchy**

May 13, 2019

Hello Aaron,

Normally I am not that fond about sailing canoe's turned into trimarans. Because of the mostly to much rocker of the vaka, they normally do not have that much end-speed. You managed to apply very straight forward and long ama's with not that much rocker. Good choice !! What do vaka and ama weight ?

About the rig I am wondering wether a more profiled rig would increase speeds any further.

**Aaron de Ruiter**

May 13, 2019

Hey Dutchy, the vaka weighs 28kg and from memory each ama is around 6kg. All the panels are 3mm plywood which has kept the weight down.

As for the rig, I chose the balanced lugsail as Michael Storer has been racing his OzGoose design (which uses this exact sail) for some years.

Using the lugsail the OzGoose boat has reached speeds of 13+ knots and is very competitive with fibreglass production racing dinghys.

**Dutchy**

May 16, 2019

Hello Aaron,

28 kg is very little weight for the vaka. Well done! Mine, called "Woodmax", is made from 5,5 mm plywood and weights aprox. 50 kg. mij ama's are made from pvc piping and weigh 8 kg each.

13 knots is indeed a good speed. Did you do it on broad reaching? And do you know the windspeed when you did the 13 knots? How does she perform on close reaching?

Anyway I probably did underestimate the rig you have..

**Aaron de Ruiter**

May 16, 2019

The 13 knots I mentioned refers to the top speed of the Michael Storer OzGoose sailboat not my Wa'apa. My top speed was a little over 9 knots on a broad reach.

**Aaron de Ruiter**

May 16, 2019

Dutchy, how do you get your vaka to the water? Trailer or on top of your car? 50kg is heavy.

**Dutchy**

May 17, 2019

I put it on top of my Ford C-max. Normally someone helps, but I have done it several times alone. It is not the weight that makes it hard, but the large dimensions. Length is 470 cm and width is 66 cm. I have to push it out above my head to place it on the roof of my car.

Quite a challenge after a day of sailing! You can see my trimaran, called "woodmax", on [smalltrimarans.com](http://smalltrimarans.com). It is not perfect built like yours, but it is a lot of fun to sail with.

In future I might use a trailer, but for now, having to change, add or correct things, it is nice to have it back in my garage after sailing.

# Retrofit of a Scarab 10 Trimaran

May 16, 2019

Categories: Small Tri Info - All

Tags: scarab 10 trimaran

## Comments

**Fran Sneesby**

May 26, 2019

Hi Catherine,

This boat is not a Scarab 10 it is called an Aussie 3 metre. We built three of them and there are 10 others out there. It was never meant to be a prototype, it was Ray Kendrick's personal boat.

Regards

Fran Sneesby (Team Scarab)

**Small Tri Guy**

May 26, 2019

Thanks for the corrected information here Fran!

**Tony**

September 5, 2019

Neat little tri. The small tris are the most fun. Easy transport, easy launch, easy sailing, easy maintenance.

Lots of fun, enjoy.

**catherine**

October 28, 2020

Funny, just find this post today. I have been very sick and alas did not used the little TRI ... happy to sell it if anyone is interested.

# Slingshot Trimaran in Action

June 3, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: slingshot trimaran

## Comments

**Otosj**

June 3, 2019

That is a very interesting way to place a mast!

**Thom Davis**

June 5, 2019

Not sure I know why you bother with a boom. Seemed to be PITA to hook it up

**Dutchy**

June 6, 2019

Hello Tom,

This boat is a design of Dr. Frank Smooth. I love the way the ama's can be moved against the vaka for trailering.

What I do not understand is why you have to be this deep in the water. Why not put sail on the boat while still laying at the shore of the beach. Look for "Woodmax" on smalltrimarans.com and you see what I mean. I only get my feet wet when leaving from shore....

**Rudolph J. Vrbanic (Rudy)**

January 8, 2023

I think i want to build or buy one.



# Trimaran Canoe in the Seventy48

June 4, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: colorado high school trimaran canoe

No Comments

## 2 Trimarans in the 2019 R2AK

June 9, 2019

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: holopuni sailing canoe, TriRaid trimaran

### Comments

**Thom Davis**

June 12, 2019

Team Ace didn't make it to the second stage...not the boat's fault, though, it was blowing like stink on Day 1 which was dangerous in the extreme for a small boat and no support. Holopuni did and as of today (june 12) is about half way done. This is the second year in a row that a monohull won. Even the tri that came in second had lots of damage...apparently there are logs floating about and rocks to catch the unwary (an F31 broke her rudder). Tough event.

**Daniel Ackermann**

February 10, 2020

For those who are interested here are the details of my build and preparation for the R2AK: <https://daniel-martha.smugmug.com/R2AK>

My write-up of the first leg I attempted in 2019 is here: [https://www.facebook.com/TeamACER2AK/posts/423766328175092?\\_\\_tn\\_\\_=K-R](https://www.facebook.com/TeamACER2AK/posts/423766328175092?__tn__=K-R)

I have since made quite a few adjustments, fixes and just toying around with a few ideas. Do not have time to do R2Ak in 2020, but will be out there with the Barefoot Raid crowd.

# KingFisher Trimaran Fishing Kayak

June 9, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: kingfisher trimaran fishing kayak

No Comments

# DIY Foiling Trimaran (Video)

June 14, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: foiling trimaran, mini Hydropter trimaran, Mini Hydroptere Hydrofoil Trimaran

## Comments

### Dutchy

June 14, 2019

Hello Jim, great video! Thanks, I really enjoyed this, since I am currently working on a foiling trimaran myself. Till now no foiling yet....., that is why I have several questions: I see you have new sails ? What is the total area of the sails you are sailing with in the video?

What is the total weight of you trimaran ? (excluding foils, they are in water)

I see you change angle of attack by moving forward and aftward. To get out of the water I understand that this is necessary. But maybe it is possible steering when elevated by the same system the moth uses? something like a turning knob on the broomstick of the ruder, as I remember.

My boat is called "Woodmax" on this site, do you have any suggestions that could help me ??

Kind Regards,

**Hans Schipper**

June 15, 2019

Hi Jim, Your video gives a very good impression of the foiling. And also from the construction problems to make it work on a beach trimaran. You did a great job fixing it all! Thanks for showing. I am curious about how stable it feels in different wind conditions. Does it require a constant wind for continuous foiling?

How often in an hour does the boat fall off its foils, as happens at the end of the video?

I think foil boats are the future, provided that the flight height can be sufficiently stabilized. And provided that the construction can be simplified. For example, would it be possible to integrate the foils into the amas where you can turn the angle of the amas to make the foils stick deeper? Would your boat also foil with shorter foils if the foils take a more horizontal position? At times the boat seems to fly on just two feet of profile, which shows that not much wing area is needed under good conditions. I try to find the optimal balance between flying and sailing for a beach trimaran. The Catri 25 is a good example of what I mean. <https://www.youtube.com/watch?v=ZbVH6rFqVpY> I think your boat is a source of inspiration. Thanks for that! And have a lot of fun with sailing and developing your "Tough Jim".

### Jim Gallant

July 31, 2019

Dutchy,

The jib is about 88 sq ft and the main is about 190 sq ft, so total sq ft is 278. I don't know the total weight, but I'd guess at 350 to 450 pounds. Each main foil weighs about 35 or 40 lbs. Active pitch control mechanisms are complicated and fragile. I didn't bother with one. Some day I may try to devise one. It would have to work for the rear T-foil and would probably need a rear-mounted feeler.

Not sure what I would suggest to help you. What are you wanting to do?

-Jim

### Jim Gallant

July 31, 2019

Hans,

In answer to your questions, it will glide some, and once foiling less power is needed to keep it going that to get it foiling. However a minimal level of power is indeed needed to maintain a foil, even on a broad reach. I can foil it in about 10-11 knots of wind by myself, and with maybe 12 knots with my buddy. I sail in a fairly narrow bay where the wind blows up or down the bay. A foiling reach may only last a minute before having to jibe. So it'd be safe to say that when the wind is less than 10 knots, it'll fall off a foil.

At the end of the video, the boat actually broke. I think we hit a sea lion actually. We saw him dead ahead looking at us and we foiled over him just after he ducked down. Shortly thereafter the boat seemed to handle weirdly. Then the aka (the crossbar) rotated a few degrees, causing the main foils to point downwards. Thus the crash. One of the winglets made from windsurfer fins at the tip of the main foils broke loose too. So I suspect we did impact something. I'm about to make repairs to fix this now. Want to get back out on the water with it.

Regarding integrating the foils with the amas, sure, that's possible. It's just a hell of a lot more work :) I like my setup though where the ama angle of attack can be changed independently of the main foils' angle of attack. I don't know if the boat would foil better or worse with shorter, flatter foils. I just know that the prototypes for L'Hydropter worked with 45 degree angled foils. Given the amount of time and expense to build such a boat from scratch, I wanted to copy a solution I knew would work.

Indeed, under higher wind there may be only a foot of each main foil in the water. You gotta get over the "hump" though when getting up on a foil. So at first you need a lot of surface area, then maybe much less. The 45 degree angled foils self-level. The faster you go, the higher you go. It's super fun to be way off the water at alarmingly high speed! I've seen the Catri.

-Jim

### Rick Hypes

January 13, 2020

2/15/23, 7:39 PM

Small Trimarans | The first online community for enthusiasts of trailerable (and cartopable) trimarans

Jim, love the video!

I built a mini trimaran from a kayak, and like everyone else, hope to foil it someday. I'm very curious, how did you build the foils, and what are they made of?

Thanks for posting, and I subscribed to your channel as well.

# From Cool Finn to Triple-B

June 14, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: cool finn trimaran, Triple B trimaran

No Comments

# Strike 16 Trimaran for Sale in the UK

June 14, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Strike 16 Trimaran

No Comments

# Stand Up Tri with a Reddy Rudder

June 23, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: stand up trimaran

No Comments



# Puppy Dawg (Weta Trimaran) for Sale

June 25, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Weta trimaran, weta trimaran for sale

## Comments

**Greg buhl**

January 17, 2020

Have you sold the weta?

**David Speir**

February 15, 2020

Good evening Peter

Where is the boat located please?

Is it still available?

I like the pedal concept!

It needs to have a roadworthy trailer

for I-95 travel.

Thank you

David Speir

Fort Myers FL

Stamford CT

**Peter Lange**

March 16, 2020

Hey, Greg and David. The boat did sell at the beginning of the year. The new owner lives in Spokane Washington.

**Dan**

September 8, 2020

Hello Peter. Know you sold the boat earlier in the year, but I was wondering how well the H2ProPed system propelled the Weta through the water. Any info would be greatly appreciated. Cheers, Dan.

**Peter Lange**

September 8, 2020

The H2ProPed did work at moving the boat forward, and it actually saved me one time when I was stuck deep in a marina and needed to get out into a 20 knot head wind. However, I do not advocate the H2ProPed for the Weta for two reasons:

- 1) It's in the way when tacking. If you are doing really long tacks while coastal sailing then maybe you don't care about that.
- 2) The ProPed is based on a cable drive system that bends 90 degrees between the pedal drive and the prop. As such, it does not have a very smooth pedaling motion. I think a universal joint drive would probably be a much smoother set-up.

The alternative is to rig up a line to the rudder through some small blocks on the amas around the front of the mast. This allows you to steer the boat while paddling from the bow with a kayak paddle.

Hope that helps.

# Last Tri? Next Adventure

June 29, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Hobie Al trimaran

No Comments

# 21 Foot Trimaran SYZYGY Just Launched

July 8, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 21 foot trimaran, John Marples

## Comments

### **Skeezix**

July 9, 2019

"similar to the CC23"

"hulls were molded on a table"

So is it essentially another constant camber boat?

### **Small Tri Guy**

July 9, 2019

No, it is NOT a CC boat. John built this one using "strip plank" technique. It took him awhile to build it too, but it looks terrific. (This is a correction to my previous comment here ... I had wrongly assumed it was CC because of the nice, curvy shape.)

### **Tom Henry**

July 10, 2019

Very nice, John.

Ticks all the boxes and then some.

Skinny and light.

Quite a slick vaka shape, love it.

All the best,

Tom Henry

Salem, Mass

### **Burk**

July 11, 2019

I recently stumbled across a conversation about the Jim Brown Seaclipper 28 MK2 trimaran. Looks like the perfect combination of CC and easy simple folding system, fast and trailerable. Do you know if Jim is planning on a CC23 MK2 version with the same swing wing idea? Thx- Burk

Here's the link to the conversation with pictures of the Seaclipper 28 MK2

<http://www.cruisersforum.com/forums/f48/trimaran-especially-searunner-owners-14322-262.html>

### **Small Tri Guy**

July 11, 2019

Burk, this is John Marples' boat. He is the designer. I don't know that he is planning a swing wing option for the CC23 or not. That is a great question though. You can reach him via his contact info on <http://www.searunner.com>

# Byte Dinghy Conversion to Trimaran

July 17, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: byte dinghy, byte dinghy trimaran

## Comments

**Robert Paine**

July 21, 2019

It appears that Richard has successfully created the perfect one man sailing trimaran. It looks that he has taken what essentially appears to be the world's most popular one man racing dinghy (Laser- that cannot be reefed), and added amas, allowing him to sail in conditions that could only be done with a reefed sail- and still light enough to paddle out and get back. Could also simply choke the akas with a rope on each side and run a winch under the boat for easy on and off.

**bob paine**

April 12, 2020

I presume this same setup can also effectively be used on a sunfish (another ubiquitous production fiberglass single person sailing dinghy that, to my knowledge, cannot be reefed).

**Robert VanDenBogaard**

July 4, 2022

Brilliant accomplishment. I have a seventeen foot O day sailboat and acquired an old venture catamaran. Like you I would like to combine the two into a trimaran. I had never thought about laminating amas but is a good solution.

# Seaclipper 20 – Mad Dash: First Impressions

July 18, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Seaclipper 20

No Comments

## 4.6 Meter Trimaran Tooling

July 22, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: trimaran building mold, trimaran tooling

### Comments

**Dutchy**

July 28, 2019

Hello Tom,

Congratulations, looks like a great trimaran.

As owner of the 4,7 meter homemade trimaran "woodmax", I am curious about how she sails. Do you have some videos?

**Earl White**

July 29, 2019

Great looking Tri!

I don't need the tooling but I could use some information about how you designed the amas and how you like them?

I am trying to come up with some plans for a set of foam based amas for my 16 ft Grumman canoe. It will be a trimaran in principle.

Any advise would be much appreciated!

**Small Tri Guy**

July 29, 2019

Check out the following options (building plans) available from Duckworks:

"Float, Sail & Leeboard Plans" – <https://www.duckworks.com/product-p/sel-floatsailleboard.htm>

& "Drop-in Outriggers for Canoes & Kayaks Plans" –

<https://www.duckworks.com/product-p/oz-dropinoutriggers-id.htm>

**tom flanagan**

August 2, 2019

Dutchy,

Thanks for your comments on my boat. I've had the boat out only a few times and feel pretty good about the sailing characteristics. I am not an expert sailor but the boat seems to be well balanced and goes to windward without a board of any kind reasonably well. when going to windward I always use the Hobie pedal drive to enhance performance. Performance potential has not been realized as I have a pretty modest sail that I built myself from a lumber wrap film. A well cut sail, I believe would make a difference.

Later this summer I will try to post a video on youtube or something and you can judge for yourself. I'm really waiting for a good breeze.

**tom flanagan**

August 3, 2019

Earl White

The Ama design is somewhat evolutionary. They are rather large (3.6 m long). this is because I feel a large displacement Ama makes more sense for winter boating in my area of the world. The design is a basic "V" bottom with a hard chine. this gives small wetted area in light airs and going off wind. the construction is actually pink roofing foam of 15mm thickness. it is then laminated over with glass and carbon fiber. At the mounts there are reinforced bulkheads to take the loading from the akas. the weight is 9kg per Ama. the build was fairly straight forward and fast and the performance is meeting my expectations

# Assembling and Launching an Osprey Trimaran

July 25, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Osprey sailing canoe, osprey trimaran, solway dory

## Comments

**Otosj**

July 27, 2019

This is so good. Showing all the work that needs to be done before you can sail a multihull. On one side it is deceiving as it seems to take a long time, but most sailing boats can easily take longer to rig and be made ready for a sail. Usually by using stayed masts, and cleverly David uses an un-stayed mast. And everything is clicked on, here and there a twist or a turn, some rope and voila: a multihull! Ready to sail with.

How things are done is interesting; there must have been a lot of tinkering in order to attach the ama's to the outriggers, the outriggers to the main hull, what to do with a rudder that also must be able to raise and lower, where do I leave the trolley etc etc.

And all of it is so well made, nothing is improvised, this is a true example of how to do a trimaran.

I can only add: "Bon Voyage."

**Dutchy**

July 31, 2019

Wel done, very neat trimaran. Shot assembling time and very smart connection of the aka's with the ama's. I am very curious about how she sails... because that is what it is all about.

**Andreas Phileas Neumann**

January 14, 2022

Hi!

Thanks for shsring this!

I seek to purchase a Solway Dory Osprey Trimaran in good conditions.

Do you happen to know someone who considers selling one?

Greetings from Switzerland

# Improved Sailing in Breeze

July 29, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Breeze sailboat

## Comments

**Otosj**

July 31, 2019

Actually this is a kind of proa. But it is a 100% great idea! I am just curious about handling a lot of wind from starboard, but maybe that is beyond the point for what this boat is made for: fun!

Lots of fair winds Mr Schippers!

**Hans Schipper**

July 31, 2019

Thanks Otosj, The boat is indeed suitable for sailing up to 4 Beaufort. That is why the name is "small breeze". With wind force 4 I have to move my weight to the middle frame with the canoe on the low side. This construction is only possible because it is all so small and light that my own weight of 100 kilos puts enough weight in the bowl (I hope you understand this Dutch expression). I think it's hard to tell whether or not it's a trimaran. I have thought about the definition of a trimaran; Three hulls (= elements with buoyancy that touch the water) that are interconnected and together form a vessel. Even though the aluminum frame filled with foam together with rudder and sword has relatively little buoyancy, breeze still meets this definition! I wonder what other definition of a trimaran breeze would not fit in?



# Seaclipper 20 – Mad Dash: 2nd Impressions

July 29, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Jim Brown, John Marples, Seaclipper 20 trimaran

## Comments

**Jim Brown**

July 29, 2019

Hello David,

How good to hear you are having fun with your boat. Responding to some of your points:

The rotating mast is definitely worthwhile. Just try tacking with it restrained on the old tack. Try to get the boat moving on the new tack, and then flop the mast to the new tack and feel the boat take off! To restrict its movement on the mooring, make a little "tiller" for it, a lever protruding either aft or forward of the base, and secure that to little cleats on both sides with lashings. To keep the mast from jerking on its shrouds when on the mooring, just tighten the headsail sheets. Or, if you do not have a roller furling jib, run a line up the stay as high as you can reach, and lead it way aft and tighten that.

For the dinghy, I suggest you tie it close to the main float, and put the pendant in the dink with its pickup staff sticking up from the stern.

And try this for me: Go sailing with the dagger board in the down position, close hauled, and see if there is any load on the board. Can you lift it up and down even when close hauled? From what I've seen, that boat does not need its board until there are real wind waves trying to knock her sideways. Otherwise, she seems to sail well without the board, probably because of the deep stem and flat topsides. How did she steer when you were surfing?

You could make fold-up seat backs for the cockpit that would lay down when not in use.

SAIL ON!

Jim

**David Hughes**

July 29, 2019

Thanks Jim for the tips, I'll certainly will implement them as time moves on. For now I am using the jib sheets to tighten the forestay which seems to work well. I like the idea of a rolling furling jib. Right now I have the Hobie full batten jib which seems like a handkerchief to me, tiny.

I like the tiller idea for the mast. Right now I have two lines off of a cleat to restrict the motion. I certainly will try restricting the rotation. Sounds like fun thing to try.

And likewise, I will test the need for the dagger board. If your thought proves true, it would be interesting to see if not using it impacts tacking?

Best,

Dave

**Pippo Bianco**

August 8, 2019

As a SC20 builder, I'm more than happy to read these notes. Feel free to visit our blog describing the construction: [seaclipper20.blogspot.com](http://seaclipper20.blogspot.com). We definitely plan to launch next year.

# DIY Topper Dinghy Tri

August 2, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: topper dinghy trimaran

## Comments

**Eric**

August 2, 2019

What keeps the floats from rotating 180°, to end up above the deck line?

**Paul Collins**

August 2, 2019

There is now a cord attached to the float cover that cinches tight over the cross beams. This holds the float at an inwards angle.

One of the cord loops broke, so I removed all the cords. The float then rotated to the top of the cross beam. In a 10kt wind, this was still enough to limit the heel angle.

# 1973 Triumph Snark Trimaran on Ebay

August 6, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Snark Triumph trimaran

## Comments

### **Matt**

September 16, 2019

I had one of these as my first boat when I was 10. Was slow, but took it out with some "older kids" in 30 and we blew out the mast step but had a good time. Was never fast, but did teach me to sail. Next year dad got me a Sunfish and the tri got a 2hp outboard. I must admit, it was much more fun with the outboard.

### **David Austin**

August 9, 2020

Is this boat still for sale ?

### **Todd Barrett**

September 23, 2020

Thanks for posting this information! My son and I are currently restoring a Snark Triumph we found on Craigslist. We have completely disassembled her and we are cleaning, painting, and replacing as needed. Being fairly to new sailing and totally new to Trimarans, we need to replace the rotted out, stacked plywood support strips that run from amas to amas across the main hull with one at the bow and one at the stern.

The question we have is did Snark use plywood strips because they were cheap and had some flexibility? I was considering using stacked PVC trim boards (to keep them from rotting) but I am not sure if this is will make the amas too rigid. Is it better to have some flex on those outriggers or is stiffer better in this case?

We appreciate any guidance your readers can provide and look forward to sharing the results of the re-build.

### **Small Tri Guy**

September 23, 2020

Hi Todd,

In the above you ask, "did Snark use plywood strips because they were cheap and had some flexibility?" Ply was likely used on your boat for a couple of reasons, but probably not having anything to do with flexibility. Weight is always an issue, especially with small boats. If I were you I wouldn't use any PVC boards because they're heavy. IMO materials that offer a combo of light weight and strength are most desirable.

# DIY Spinnaker Snuffer

August 8, 2019

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: diy spinnaker snuffer

## Comments

**Stefano**

August 15, 2019

To make nice bends in tubes, fill them with sand. They will bend but not give in in a bumpy manner. Once done, just dump the sand out of the tubes from one end and then join the tube ends, whatever technique you may have chosen. If you really want to go sophisticated, inject some foam in pre-weeted tubes so you will get no water in them.

# Kayak Sailboat to Go

August 13, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Sailboats to Go, SailboatsToGo, SailboatsToGo.com

## Comments

### **Dutchy**

August 22, 2019

.....A good first step to the best addiction of all : ..... sailing !

### **Bob Paine**

May 2, 2020

Joe: After playing around with this concept for about a year, I have determined that there is really not enough benefit to try to make this kayak into a sailing vessel. Even with adding an 8" removable skeg underneath to act as a centerboard, there is just not enough sail to drag the little vessel windward. It may have some use for downwind sailing; however, the benefit is really not much better than paddling. (In the words of my old mentor: It is hard to turn a hunting dog into a racing dog, and visa versa.) Having said that, I am still very happy with my Snipe Hobie 14 trimaran that I have been sailing for the past three years after combining two sailboats into one to make a very enjoyable and serious little sailing trimaran (the Snipe – a two person racing dinghy, and the Hobie 14 amas) thereby allowing one person to sail a two person racing dinghy safely and comfortably. There is plenty of sail on the Snipe to pull the added weight of the Hobie 14 amas and wooden akas, and truthfully, during the sailing season down here in central Florida where we get some pretty good wind every day, I rarely need the jib, and the little trimaran will get up and run even with a reef in the main.

# Motorized Canoes with Outriggers

August 19, 2019

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: motorized canoe with outriggers, motorized canoes

No Comments

# Can You Identify this Small Trimaran?

August 23, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: small trimaran in UK

## Comments

### **Dutchy**

August 28, 2019

Hello Robert,

I honestly never saw anything like it. The ama's can be folded up I guess. Trimarans with small ama's were made some decades ago. Nowadays ama's have (almost) the same length as the vaka. Reason is that the lee-ama takes over when vaka is (almost) flown.

Disadvantage of modern building is the added weight because of structural needed strength in the aka's.

Your boat has short ama's and should not be that heavy. Do you have any idea what the weigh of your trimaran is ? And surface area of the sails?

### **Manfred Pech**

September 6, 2019

Hi Rob. Your boat is a TRI – Belle built around 1968 in England. It is not foldable and it has no centerboard or daggerboard but a small low aspect fin keel. The floats do not have enough static lift nor an underwater shape that can give you hydrodynamic lift. But if you shift your body and lean out you can gain enough stability for sailing in moderate conditions.

We had such a boat in our groupe and cut off the small keel because the bottom of the main hull was too soft to stand on it when on a hard bottom. After installing a daggerboard case the little tri sailed better to windward and tacking was improved. You can find two pics in MULTIHULL INTERNATIONAL number 9 (September 1968).

Sorry I do not know, how to post pics here. I tried, but did not succeed.

When there is more time I will look, if I can find a test in MI. Goog luck with the little TRI – Belle. Manfred

### **Small Tri Guy**

September 6, 2019

Awesome Manfred!

Just awesome.

Many thanks.

A member of the the small tri community has come thru again :-)

### **Robert**

September 6, 2019

That's fantastic. I just logged on to respond to Dutchy having been weighing it (120kg). It does not have the original sail, and has been adapted to take a sail from a Dart catamaran. I wondered about taking off the keel and replacing with a dagger board, just to make beaching easier. But still working on getting her in the water at the moment.

### **Manfred Pech**

September 7, 2019

We had to replace the swollen and weak laminate and took the opportunity to insert a daggerboard case. You seem to have a better Mk II or III boat and do not need to replace the fin keel. It works sufficiently to reduce leeway and you can give it an endplate to increase windward ability. The best is to get it in the water and to sail. Have a good time and enjoy sailing. M.

# Small Dinghy with Outriggers – Especially for Kids

September 5, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: dinghy with outriggers

No Comments



# Free Buccaneer 28 Building Plans?

September 7, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Buccaneer 28 trimaran

## Comments

**Iosif Gross**

September 9, 2019

Hi

Can't connect to <http://www.ezifoldyachts.com>, my antivirus will not let me, it says the site have some dangerous virus

Downloaded the PDF from both sites.

From analyzing the drawings in my opinion have many missing information that will make impossible to replicate the design with a reasonable accuracy.

Best wishes

Joseph

**Mark Booth**

September 13, 2019

I'm looking for a trimaran for a disabled man with a power wheelchair. Would like for a 3 to 5 persons

**Iosif Gross**

September 27, 2019

Hi Mark

Can you give more details on what you are searching for?

Like open deck or cabin, price range, etc'.

Best wishes

Joseph

# Update on Woodmax

September 8, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Woodmax double outrigger, woodmax trimaran

## Comments

**Rick Hypes**

January 13, 2020

Dutchy,

How well do your foils work? It's hard to see them in action on your videos.

Thanks for all the info!

**Dutchy**

January 17, 2020

Hello Rick, you can see in the video's that they have a particular form. They are V, except for the end part. This is about 40 cm long (width is 19 cm). I used to have the single part longer but, using wood, this will bend/rotate too much. You will have a spin-out then.

I had some more reactions about not seeing the foil work: next summer 2020 I will make some videos of it.

# SUP Into Outrigger Sailing Craft

September 9, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: SUP trimaran

## Comments

**Hien Ngo**

January 12, 2022

<https://trimaransurf.wordpress.com/>

New Updates

# DIY Outriggers and Sail Rig for Kayak

September 11, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: diy kayak outriggers and sail rig

No Comments

# An Expedition Canoe for Watertribe

September 18, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: B & B Yacht Designs, expedition canoe, outrigger canoe, sailing canoe

No Comments

# Sailing with New Fins on the Triple B Trimaran

September 23, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: hull fins, hull wings, Triple B trimaran

## Comments

**Hans Schipper**

October 27, 2019

I added a higher mylar jib and the boat has a perfect balance now and a top speed just over 12 knots. When it starts lifting above 6 knots the boat is making less sound and steering very light.

Making small foils to a trimaran is an easy way of making a more stable and better sailing boat.

## Dual Outriggers on Rikiki

September 25, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: diy canoe, double outrigger canoe, rikiki outrigger canoe, rikiki trimaran

### Comments

**Stefano**

October 5, 2019

Très bien fait !! How many kg the outriggers and whole boat ?

**Hans Schipper**

October 9, 2019

A very good idea, different outriggers for different use!

And a lot of fun with such "light sailing". It shows me that all the big boat shows have lost where sailing is all about.

# Strike 20 Trimaran On the Water

September 26, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Richard Woods trimaran, strike 20 trimaran, Strike trimaran

No Comments



# Slingshot 16 Trimaran (tandem version)

October 7, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: slingshot 16 trimaran tandem, slingshot trimaran tandem

## Comments

**Dutchy**

October 20, 2019

Hello Frank,

Being a fan of your boats and website, I saw your comment about the tandem version.

Nicely done as always. In one of your first articles (years ago) you told, that for the first boats you used only 3,5 mm plywood. Later on you suggested that for the bottom panel should be used 5 mm plywood. So I am curious about the above tandem-version. Does she have the 5 mm plywood bottom panel? And what about the weight of vaka now ?

# Forro 550 Trimaran in Development

October 14, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Forro 550 Trimaran

No Comments

# Turning a Windsprint Into a Trimaran

October 20, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: monohull to trimaran conversion, windsprint to trimaran conversion, windsprint trimaran

No Comments

# Building and Sailing a Jukung

October 26, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Jukung, Jukung sailing canoe

## Comments

**IOSIF GROSS (Joe)**

November 23, 2019

Hi All

I am living in North Bali so just a few remarks:

The Jukung origin is very contested in Indonesia as almost every island (total of more than 17,000, more than half inhabited) acclaim the originality of the boat. I suppose not just the Indonesian islands but all the south east Asian islands.

The Jukung in the video is around 7 meter long, made instead from one trunk of a tree. It is hand made (no chain saw for example) with an ax.

In the video we can see cutting down the tree, cutting the trunk with chain saw and the the ready boat. We can't see the building process.

The Indonesian government forbid many years ago to cut the big trees and this is the reason that all the new Jukung's today are made from fiberglass.

They are made in two versions, 30' (9 meter) and 23' (7 meter) long.

The fiberglass boats are very heavy as no any strength calculations were made, the approach is "Stronger the better".

Still you can see sometimes people making new Jukung's from tree trunks, but on the size of around 12' (3.5 meter) and with the help of closing eyes of the local authorities as everyone is family with everyone.

I witnessed on build near the see, close to my house. The guy worked on it for more than one year, not continuously.

Old Ama's are made from bamboo and the modern version for 4" PVC pipe covered with fiberglass. The bonding is a big question as the PVC and glass with polyester are not bonding together. The Aka's are made from hard wood and all the connections with plastic ropes.

Stability:

As the Ama's volume submerged is around 80 Kg and the Vaka is narrow and high above the water line, not much stability in even little bit choppy waters. Last year a dolphins watching boat with 6 tourists capsized in waves of around 1/2 meter. No one hurt, everyone had life jacket.

Performance:

On engine:

The locals are using long tail engines, one or two or outboards. Today the majority are using outboards because if one have outboard the others must have. Human nature.

The outboard have a fixed mount and they are using the rudder on the Vaka left side to direct the boat.

Because of the hulls shape and a lot of drag induced from the rope connections, the maximum speed is the same with a 10 Hp or 25 Hp engine. This is the engine range I observed.

On sails:

Because of the sail shape, most area on top, the boat is very fast downwind. You must learn how to master this sail, very different from rigging's I know.

To sail with side wind is possible, but the drift is big because you don't have almost nothing to induce lateral resistance.

Tacking is just impossible, so you use engine or paddles.

I hope my remarks help to understand better the Jukung.

Best wishes

Joe

**dharmin desai**

January 30, 2022

Hi Joe,

Great work. I am in love with this Jukung. I read earlier that you are making one yourself. I am very interested to make one for myself. Is it possible to buy plans from you and can you suggest a boatyard in Bali which you used.

Look forward to your reply.

**Small Tri Guy**

January 30, 2022

You may want to check out Gary Dierking's books and website. A few other posts here on this website you may be interested in are as follows:

<http://smalltrimarans.com/blog/more-on-gary-dierkings-waapa-trimaran-canoe/>

<http://smalltrimarans.com/blog/traditional-outrigger-lashings/>

<http://smalltrimarans.com/blog/single-outrigger-ulua-soon-to-become-double-outrigger/>

<http://smalltrimarans.com/blog/building-a-waapa-double-outrigger/>

**Joe (Iosif Gross)**

February 1, 2022

Hi Dharmin Desai

I am not in Bali right now, I am at home in Romania.

Will be back in Bali by mid or end of February and will send you a detailed answer.

Best wishes

Joe

**IOSIF GROSS**

March 2, 2022

Hi Dharmin Desai

I am back in Bali, if you are living in Bali, you can pay me a visit, I am in Singaraja area.

What I build is a plywood/epoxy glass trimaran of 3.6 meter and a 2.4 meter trimaran to teach sailing my 12 year old daughter. Not finished yet.

Both are my designs, the 3.6 meter I tested and it has bad hobby horsing so it got to the junk.

As I mention on my long post, in my opinion the relatively small ama's volume and heavy Vaka makes the jukung not stable when waves are even just 30 cm

My boats I build alone, or by a very professional wood worker that made my house furniture's.

Have many small boat yards that are building fiberglass/polyester jukungs in Bali. I know one here in Singaraja, Desa Celuk Buluk and one in Bedugul, up on the mountain.

The one near me works nice, he have moulds for a 7 meter and a 9 meter jukung

The price is between US\$ 2,000 and US\$ 3,000, maybe more, depend of the extras you want.

I am not selling plans as I didn't tested them yet in the water. I am planning to build a new 3.6 meter trimaran this summer (I mean the dry season) with the help of the wood worker I mentioned before because I have some health problems, can't stand up for long time.

If I will build ant test the new 3.6 meter boat, I can give you the plans.

Best wishes

Joe

# New Fanatic Sail on Woodmax

October 31, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: windboard sail on boat, woodmax trimaran

No Comments

# Seaclipper 20 Trimaran – Sport Version

November 5, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: seaclipper 20 sport, Seaclipper 20 trimaran, seaclipper 20 trimaran sport version

## Comments

**Larry Saupe**

November 22, 2019

Sounds like a great addition to an incredible platform. It all about versatility!

**Tony**

November 23, 2019

I am one of those who struggle with mast raising. I look forward to your upcoming paper to help me improve my technique.

-Tony

# DIY Foiler Trimaran Parts for Sale

November 5, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: foiling trimaran

## Comments

**Hans Schipper**

November 6, 2019

Hi Jim,

I am wondering what makes you decide to sell the foils? Has it to do with too much instability of fly-foiling for relaxed sailing?

When you don't sell the foils you can think about gluing a part of the foils on the new amas. Not to fly with your tri but to give it some lift for stable and fast sailing. I have noticed this idea at first on the Catri, designed by Aldis Eglajs, and I think it is one of the best ideas for small trimarans. I made foils on two trimarans and the new owner of my first trimaran is very glad with it as I am with my second one with foils.

**Dutchy**

November 8, 2019

Hello Jim,

Maybe it was too much of work to get it on the water ... or it took too much time assembling. Maybe it could not be sailed alone and you always needed another person to sail it. I do not know why you stopped this foiling project. I hope you will not regret this decision.

Anyway: Thanks for all you photo's and video's of your project. I really enjoyed it!!!

I hope you will keep us informed about the trimaran you will make using the Nacra hulls.

Kind Regards,

Dutchy



# Multi-Hobie Trimaran Updated

November 8, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Hobie beach trimaran, multi hobie trimaran

## Comments

**Otosj**

November 9, 2019

All hands up for mister Doctor Frankenstein!

If you can't (or do not want) to make three watertight, strong, sleek hulls, which is a lot of work and the reason trimarans are so expensive, just borrow them! Great idea, and it even better worked out. I'll bet there was still a lot of tinkering in this project in order to make it right, would Doctor Frankenstein like to be so nice to share some of it here on this site?

**Dietmar Sindermann**

February 9, 2020

Hallo, Looks interesting, what is the Diameter / length of the slidiing tubes

# Scarab 12 Trimaran in the Water

November 11, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: scarab 12 trimaran

No Comments

# The Eagle 4.6 Power Trimaran

November 11, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: eagle 4.6 power trimaran, eagle power trimaran

No Comments

## Pedal Tri (on Pintrest)

November 13, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: pedal craft trimaran, pedal trimaran

No Comments

# Sardine Run 23 Trimaran Build (Coming) in San Francisco

November 14, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Sardine Run 19 Trimaran, sardine run 23 trimaran

No Comments

# Scarab 16 Trimaran Build Recorded

November 19, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: Scarab 16 trimaran

## Comments

**Ron**

November 19, 2019

Thanks Small Tri Guy. I cannot believe in all the trimaran searching I did that I didn't find your site until after I built the Scarab!

Like all boats it is still a work in progress :)

**Fran Sneesby**

November 20, 2019

Thanks Ron for sharing our link. Happy sailing.

## Modified A24 Trimaran (for Sale)

November 20, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: A24 trimaran, adventure trimaran

### Comments

**Otosj**

December 3, 2019

I like the double mast version better. It somehow looks better and is a much welcomed exception to all the sloop riggs out here!

Double masts have so much better to offer if adventure means going to places "far and unknown" in terms of course keeping, sailhandling (smaller sailarea per sail) better rudderbalance etc.

And this one goes fast too!

# Freedom Hawk Kayaks

December 3, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Freedom Hawk kayak

No Comments



# Libertist Trimarans Under Sail & Development

December 4, 2019

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Libertist 703 trimaran, Libertist 853 trimaran

## Comments

### Thom Davis

December 5, 2019

Nice video. I think 8 meters is a bit large for a "small trimaran" though. I do understand that they are trying to make a smaller one, though. Looks heavy but it sure seems to move well (maybe red isn't the best color to look sleek!). I wonder if they modeled the "fixed foils" from the Catri boats. Seems to hobby horse more than other tris, even in lighter breeze.

### Small Tri Guy

December 5, 2019

Good points Thom. I included the 8 meter because it's trailerable (I think :-)

... although it's doubtful a tri like that will see a trailer very much.

### Erik Klepsvik

December 21, 2019

I intend to have one 7 m Libertist 703 built for use in the region of Stavanger, Norway. Designer Erik Lerouge is a very reputable French naval architect, and the Libertist range is a cooperation between Mr Lerouge and the Polish company Libertist. Boats will be built in Poland, where there are many excellent yards for advanced composite building. Libertist 703 will be light - 850 kg, have a carbon rotating mast, will sleep 3-4, have a small galley, a portable toilet, fixed mini foils, fixed spade rudders in the floats, a main hull daggerboard, etc.

### Small Tri Guy

December 21, 2019

Thanks for the additional info Erik.

### Adam

March 3, 2020

Dear All,

Good Day,

Thank you for your good comments.

We did not anything from anyone or anywhere. It is all - as far as I am concerned- Libertist. Original. True.

The weights we are announcing are real one. For the 853 model we were aiming for 1400 kg.

Plastics were slightly heavier, but ready to sail get 1600. 3 suitcases with tools were on board. You know ;)

Boat could be demounted for trailer. It took 4-6 hours and 2-3 men. Possible with two people, easier with 3.

Hobbyhorse - I do not really notice that but I could be in position of not noticing that. Do not take it granted. Will provide other videos from other tests.

On that particular one there was camera rib around.

The 703 model is being build. At the very moment 3 orders. Currently tooling is underway. This is swing wing version.

Yes, red is not such sleek colour but is fast.

All the best,

Adam

# Electric-Motor Fishing Trimaran in the Sierras

December 4, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: electric powered trimaran, fishing trimaran

No Comments

# For Sale: Cross 18 Trimaran – Crosswinds

December 9, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Cross 18 trimaran

No Comments

# Nacra-Hobie Beach Tri Under Construction

December 13, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: nacra hobie beach trimaran

## Comments

**David M Sylvestre**

November 10, 2022

Is it possible to get the dimensions of the sliding tubes and other info on parts used?

# A Look at the Colson 580 Trimaran

December 30, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: colson 580 trimaran, colson trimaran

No Comments

# Homebuilt Mini Kayak Trimaran

December 30, 2019

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: homebuilt mini kayak trimaran

## Comments

**Martin Corrick**

January 3, 2020

Excellent effort! Nice to see a really low cost tri working out so well! Martin C

**Hans Schipper**

January 7, 2020

Looks very good! The smaller the better. Is it possible to lower the ama's when you bring them forward so they are less hanging on the centre hull? It seems they have more bouyance as they need. Is the daggerboard strong enough? I am working on a similar project with a 4.40 meter fiberglas canoe and foam and epoxy ama's . I am thinking about fitting a fixed shallow keel instead of a daggerboard. It is so much fun to sail as good as possible with as less as possible boat!

**Rick Hypes**

January 29, 2020

Hans,

The amas do have a lot of bouyancy, I went for more than less. I

The daggerboard I normally use is strong enough, it's thicker plywood. I left it home and had to build one out of scraps I had in the the truck. I like the daggerboard vs a keel since it kicks up in shallow water when you beach the boat.

Just picked up another kayak to convert, I'll see how it works.

And yes, the smaller the boat the more it gets sailed!

# Weta Dinghy Cruising

January 3, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Weta trimaran

## Comments

**Stefano**

February 29, 2020

Excellent ideas José... they can be useful for any small trimaran for solo sailing. If you allow I would add two suggestions:

- 1) a very long rope with double pulley tackles. It can help to drag the boat ashore by pulling downhill towards the boat;
- 2) 2 1 metre by 10 cm HDPE tube "rollers", they are very slippery and allow the boat to be pulled ashore with the tackle, on sand and at times on pebbles and rocks without damage.

# Nesting Sailing Canoe In (and out of) Trimaran Mode

January 3, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Nesting Sailing Canoe Trimaran

## Comments

**David Nelson**

January 8, 2020

Congratulations on your concept and persistence. One sailing canoe designer has a longer canoe midsection, with pointed additions. I have been thinking about using black ground cloth from the garden supply for sails (diy, sewn) and for a trampoline between outer hulls, mainly for children, while sailing.

**Vyacheslav**

January 15, 2020

Thanks. This trimaran is my first, and I will try to simplify it as much as possible. I will set a sail for 5 square meters, in the photo a sail for 7 square meters. I used a sail from a sports boat Laser. Replace the cross beam and center shield. This boat should become a full-fledged car top. The next trimaran will have a length of 5.5 meters and two masts. Cat-Ketch.



# Hobie TI Camp Cruising (or Just Lounging)

January 14, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Hobie tandem island

No Comments

# Adventure-Ready Seaclipper 16 Trimaran for Sale

January 21, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Seaclipper 16 trimaran

No Comments

# Mosquito – 22-Foot Racing Trimaran

January 30, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: mosquito racing trimaran

## Comments

**Torleif Lindell**

November 9, 2021

Anybody who know where to buy plans for Mosquito22?

# Sailing Fun in a Blue Canoe

February 6, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: blue canoe

## Comments

**TomH**

February 8, 2020

As usual, the boats from Ian Henehan are always most interesting.

Thanks for posting.

**Dutchy**

February 10, 2020

Hello Ian,

....great speed at moderate windspeed. Well done. These are the circumstances in which a canoe does a great job. I am wondering what happens when you sail in more windy conditions..

Kind Regards,

Dutchy

**Ian H.**

February 10, 2020

Thanks for sharing the video of my boat. Always fun when a project generates some interest and questions.

Dutchy - This is the most wind I've sailed in with the outriggers, but my dad (in his 70's) has been out in 20+ knots. He said it was pretty sporting, but no disasters. He found himself sitting as far back and to windward as possible, wishing he could get out a little further. The leeward ama would threaten to submarine, but it never happened entirely/catastrophically. I was busy with my own boat, but at one point, I saw him coming downwind. The front two thirds of the hull was out of the water as the boat was screaming across the water. Looked a bit like one of the crazy OZ skiffs where everyone is hanging on with teeth and toenails. He was having fun, but a bit more work than he bargained for. If I had built reef points into the sail, it would have been more reasonable and still pretty fast. 89 square feet is a bit of sail for a 14 foot canoe.

The canoe is a convertible. The outriggers come off and there is a five foot sliding seat. Just in case you need more excitement in your life. Same rig and sail.

**tom henry**

March 14, 2020

Curious about the design of the main hull, is it an available design?

**Ian H.**

March 16, 2020

No, just a one-off experiment I cooked up.

**Small Tri Guy**

March 16, 2020

Love this little "sailing machine" Ian!

# International 420 Dinghy Trimaran Under Sail

February 19, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: International 420 Dinghy Trimaran

## Comments

**Hans Schipper**

February 20, 2020

This is how the trimarandisease starts! A boat with sidewheels. In a while you notice that a better design is possible. You look on this site and see lots of ideas to realise it. I wish you a lot of sailing and making fun ;-).

# Tri-Sailing on Land

February 27, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: landsailer, trimaran land sailer

No Comments

# Nacra-Hobie Ready to Splash

February 27, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: nacra hobie beach trimaran

## Comments

**Frank Starkweather**

December 1, 2020

I would like to build one of these myself. Looks like a very promising design. I would like to talk to you further about how it sailed, and about some of your design solutions, etc.

Please contact me: Frank Starkweather, in Bay City, MI, Email: frank\_starkweather AT hotmail.com; Tel: (989) 892 - 5520

# Scarab 650 Trimaran Build Completed

March 5, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Scarab 650 trimaran

## Comments

**Ray Kendrick**

March 6, 2020

Well done Mark. You have made a beautiful job of your 650. Hope you have some great times sailing her.

**Hendrik Möller**

March 19, 2020

Looks good! Top job!

**Tony Anderson**

March 29, 2021

Beautiful boat!



# Another I14 with Training Wheels

March 9, 2020

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: I14 with outriggers

No Comments

# Updated Beach Tri Now Splashed

March 10, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: beach cat trimaran, beach trimaran

No Comments

# Sailing the Bahamas in a Corsair F-27

March 12, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Corsair F-27, corsair trimaran

No Comments

## 2020 Everglades Challenge Start (Video)

March 14, 2020

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: 2020 Everglades Challenge

### Comments

**Dutchy builder of Woodmax trimaran**

March 22, 2020

Great weather and a lot of smiles on the faces of the participants and spectators. Enjoyed watching this.

Thanks Chris,

# Storer Quick Canoe and Outriggers

March 21, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Michael Storer, quick canoe, Storer outriggers

No Comments

# Discovery 21 Trimaran Under Sail

March 26, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Chris White, D21 trimaran, Discovery 21 trimaran

## Comments

### **Dutchy**

April 15, 2020

Hello Chris, Great boat, looks very pretty and most important, sails very well.

Could you give me some numbers about the speed she makes at different courses ?

Btw: what is her sailarea (mainsail and jib) and weight?

Kind Regards,

Dutchy

### **Gerald Field**

January 10, 2023

I have been looking for one for sale but they never seem to come on the market . The last one was a discovery 20 for sale out of Florida a few years back. If anyone knows of one for sale please send me an email . Thanks , Jerry

# Trimaran Building Plans on Sale

March 28, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Nicky Cruz trimaran, Nicky Cruz trimarans

No Comments

# A Watermouse with Lightweight Amas

April 2, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: lightweight ama, styrofoam amas

## Comments

**Karen**

October 18, 2020

Waiting six months to see how this turned out in practical use on the water.

Karen

**Small Tri Guy**

October 18, 2020

Check out these posts Karen:

<http://smalltrimarans.com/blog/watermouse-on-sail/>

<http://smalltrimarans.com/blog/dialed-in-watermouse/>



# Unique Motoring Platform Craft

April 7, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: small motoring trimaran platform

No Comments

# Making DIY Tramps for a DIY Tri

April 8, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: diy tramps, diy trimaran trampolines

## Comments

### **bones**

April 10, 2020

Greetings Jim...I've always been in ah and inspired by your builds! Starting with Best Guess. Your boats fuel my own obsession with my current project...a Hobie 18 as a Vaca for a trimaran.

Can I ask you: center hull length, float length, and overall beam?

Thank you and I look forward to seeing this beast fly!

### **Dutchy**

April 11, 2020

Hello Jim, I also enjoyed your trimarans from the foto's and video's you sent to "smalltrimarans.com". I still am sorry that you stopped your foiling adventure. I am wondering what the reason is for this. Was it the sailpreparation time, did you need always two people to sail it, or.....

I myself will send more video's of my foil-supported "woodmax" trimaran this summer. I will be able to sail within 2 or 3 weeks from now. Hope you will see my video. Feel free to give me advise at the time.

Kind Regards,

Dutchy

### **Jim Gallant**

April 15, 2020

Greetings to you to Bones. Length of this one is 20 feet (Supercat 20 hull), beam is 17 feet.

Dutchy, metal parts supporting the main foils on the foil boat kept breaking and bending when 2 of us were sailing on it. The forces get pretty severe with 2, 200 pound guys going 20 knots 3 feet off the water. Lots of rotational forces. I got tired of fixing it. Also wanted a boat where I could go for a "normal" sail rather than broad reaches optimized for speed. I hydrofoil windsurf too, so I have other options for foiling. It was a hell of a thing though.

### **Dutchy**

April 15, 2020

Hello Jim, I recognize a lot of the problems like fixing the foils and even breaking an aka. To get out of the water takes a lot of stiff construction en strength. That is why, despite of having designed and tested a small radio controlled model trimaran that foils, I decided to go for supporting hydrofoils. This means the mail hull (vaka) will stay in contact with the water al the time. However only being 5 cm dept ! A big advantage that I discovered is that you can put the windward hydrofoil out of the water. This way you lose a lot of friction and also the windward foil helps you to have enough counterweight for the sailforce to lee. I ordered a small portable speed-meter so I hope to have speed mentioned in my next video.

Regards,

# DIY Trimaran Sea Trial

April 12, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: diy trimaran

## Comments

**Christofer Olsson Kedborn**

April 13, 2020

Looks amazing!! You must record some video. I see many similarities with my tri. Trampoline looks super tight as well

**Tony**

May 12, 2020

Mr. Gallant, you mentioned that the VAKA is a hull from a Supercat 20. Did you re use the original Supercat 20 Daggerboard ? If not, why not ? Do you have any 'extra' Supercat 20 daggerboards ? These questions will help with my 'decades long' Discovery 20, remodel job.

Thank you

-Tony

**Jim Gallant**

August 20, 2020

I don't have any extra daggerboards. I made the one you see. Hardwood and divynicell core, carbon fiber and glass covered.

# DIY Trimaran Sea Trial 2

April 16, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: diy trimaran

## Comments

### **Dutchy**

April 17, 2020

Hello Jim, Great sailing on a great sunny day. Sails look great !, tri looks real rigid and strong. About you working: a self gybing jib would save you a lot of work.

I made mine from a curtain-rail. Instead of the curtain the sheet transporter runs from the right to the left. You should bend it a little bit, because the transporter runs a kind of circular. I am curious about the speed of your tri. looks very fast in moderate wind conditions.

### **Thom Davis**

April 17, 2020

Plus one on the self tacking jib suggestion. My current boat is the first self tacker I've had, won't ever go back. For the tramps, might consider Alslip slugs, they are more expensive than the nylon ones, but don't break. That's what I used on the tramps I made for my old F24. Awesome ride, but standing seems kinda scary to me.

### **Jim Gallant**

April 18, 2020

I cobbled together a self tacking jib system for a previous tri I built. It was convenient, but not the best performance. Been reading all about self tacking jib systems for the last hour. I do have a 6 foot T-rail and sliding car that served as the mainsheet traveller on a Solcat 18 I bought for parts years ago. The crux of a good self tacking jib (i.e. good sail shape) seems to require using a T-track with a sliding car rather than a bridle, and for the T-track to be bent in a circular arc centered on, and perpendicular, to the forestay. I'm going to see if I can draw the correct arc on a big piece of paper and use my friend's hydraulic press to bend the track.

Standing is kind of scary, but nowhere near as scary as when this was a foil boat:

<https://www.youtube.com/watch?v=JtEPkVsMOM>

We'll see if the slug slides hold up. The stainless steel bails are welded before they mold the nylon around them.

### **Thom Davis**

April 18, 2020

Probably don't need the track to go much further than 12 degrees from cL; so you won't need the whole traveler. It doesn't have to be angled from horizontal all that much, say 60 degrees ought to do it. You'll have to be creative to make the custom stanchions to attach to the vaka. Your mini hydroptere was fun to watch, thanks for sharing.

### **Jim Gallant**

April 18, 2020

Excellent photos of self tacking jib tracks here:

<http://www.blumhorst.com/catalina27/self-tackers.htm>

### **Dutchy**

April 19, 2020

A short addition to the self tacking jib: What I did:

to know the curve the traveler will have to make, I put a marker on a short stick attached to backside of the jib (approx at sheet eye) pointing on to the deck of the vaka and let the jib go from the left to the center and to the right. In this way you get the right circular curve that is directly derived from the real jib movement...

Anyway, good luck with it...

And I also enjoyed your foil video's... when you have solved the jib issue you might consider supporting foils that counterbalance the sailforces to the leeward going to the lee side. In this way you will not be soon overpowered when sailing alone.

### **Hans van der Zijpp**

April 19, 2020

Hello Jim,

For your interest,

Here's a blog post about bending the jib traveler for a self tacking jib. It's my brother's blog about his self built F22 trimaran. Cheers, Hans

<http://f22bymenno.blogspot.com/2015/04/bending-jib-traveler.html>

# The Kanka 14 Trimaran Design

April 16, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Kanka 14 Trimaran

No Comments

# Thoughts Against Adding Amas

April 24, 2020

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: canoe amas, Hugh Horton, kayak amas

No Comments

# Wavewalk No Longer Offering Folding Outriggers

April 24, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: wavewalk fishing kayak, wavewalk kayak

No Comments

# Hobie Trifoiler Sailing

April 27, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Hobie Trifoiler, trifoiler

## Comments

**John McCarthy**

December 27, 2022

Greetings; I am in need of sails for a Hobie trifoiler. I know it been a while since the boat was produced but I am sure there are other Hobie boats that must use the same sail. Any info is greatly pleased. Please & Thank You John



# DIY Trimaran Self-Tacking Jib

April 30, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: diy trimaran, self tacking jib

## Comments

**Hans van der Zijpp**

May 1, 2020

Great addition to the boat, and a great project in general! It's inspiring to see you really make the things you think of, and not only dream about them. The gigantic trampoline is very appealing, and when sailed flat doesn't seem to hamper the sailing performance.

I wish you a lot of sailing pleasure.

Cheers, Hans

**Jim Gallant**

May 1, 2020

Thanks Hans. I'm looking forward to using the new jib controls. Should be interesting and weird.

**Thom Davis**

May 2, 2020

Good job. You likely will need a control line to keep the car more centered since unless you are off the wind (or it is blowing 40kts), the slot is just too big that far out.

**Jim Gallant**

May 3, 2020

Thom,

I don't understand what you mean? There is a line that pulls the car towards the center. It's the white and blue one. What specifically do you mean by "the slot is just too big that far out"?

**Thom Davis**

May 5, 2020

Sorry, Jim, did not see the front view where the white and blue line is shown. What I mean by "the slot is too big..." is that the gap between mast and jib leach needs to be varied depending on wind strength so that the sailplan works together correctly (the jib helps keep the mainsail from stalling when the slot is correctly sized for the breeze), in light breeze you need the car only a little from cL, in medium breeze, you'll need to let the car be outboard more (say 10 degrees from cL is normal depending on your jib's design attack angle). In big breeze even more outboard. You will likely never need the jib car all the way out at the ends unless you are reaching/broad reaching in big breeze. On my boat (about the same size as yours-but yours is lighter) my jib car is hardly ever more than a foot from the mast (but I use a spin for down wind).

# DC3 Trimaran Nearing Sea Trials

May 8, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: DC3 trimaran, John Marples

## Comments

**Abella Andrés**

May 8, 2020

Good news!

**David Hughes**

May 20, 2020

Nice work. Like the color! Where is this boat located?

**Eduardo Reyes**

March 16, 2021

Hello what's the status of the building?

**Guy**

August 15, 2021

Anything more recent, would seriously love to know the performance of this on the water

**Dave Michels**

October 1, 2021

Well , it's a long story – more than 7 years in the making – but the boat was launched on a beautiful day, 9/29/21, in Long Beach, CA.

Sadly, Chuck, the builder, was with us in spirit only, but the rest of those in attendance were as proud of his accomplishment as we could be. We all raised our glasses in a bittersweet toast.

If you're reading this, we invite you to do the same.

**Eduardo Reyes**

October 2, 2021

To Chuck , fair winds great job you did here!

**Rob Wyman**

January 12, 2022

Dave Michels: Sad to hear about Chuck. He invited to look over the boat last year and helped me decide to buy my own plans for the DC-3. I really enjoyed talking to him about Jim Brown, John Marples and trimaran history; he was a wealth of experience. I sent a few emails over the last 6 months to see how things were going, so now know why I didn't hear back. He built a beautiful boat and was a great craftsman. I would love to hear a little more about the launching and other info on the first fully built DC-3. Please send an email if you can: [wyman688@gmail.com](mailto:wyman688@gmail.com). Rob (Long Beach).

# Sheltering in Place on a SeaRail 19

May 22, 2020

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: Seairail 19 trimaran

## Comments

**Larry**

June 4, 2020

Very nice! Looks like a great day.

**James Looby**

November 3, 2021

Hi Thom,

James Looby here (ex 2 F25Cs & F24-1). I'm looking at SeaRails. Could I possibly speak with you?

# CC Cyclone 23 Trimaran Under Sail

June 5, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Cyclone 23 trimaran

No Comments

# DIY Way to Cartop a Small Trimaran?

June 10, 2020

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: diy cartop boat, diy cartopable boat

## Comments

**Thom Davis**

June 13, 2020

Gotta say that is clever and only one heavy lift-but if the legs don't swing down might get to be in a bad way pretty quickly. Here's another method that doesn't require lifting. [https://www.youtube.com/watch?v=q3e61xCQzKg&feature=emb\\_rel\\_end](https://www.youtube.com/watch?v=q3e61xCQzKg&feature=emb_rel_end)

**Small Tri Guy**

June 13, 2020

Terrific ... thanks for sharing Thom!

**Stefano**

June 17, 2020

Very useful. It would be useful to know what the weight of the boat in the video is. I would guess maybe 50 kgs being it fiberglass. Somebody may also calculate what the swinging motion effort would be. I would assum less than the 50 kgs estimate of total boat weight. Last, one comment on the sliding of the boat: 2 strips of teflon attached to the rails would reduce by far the effort needed to push it on top of the boat and reduce friction on the boat itself. A more aerodynamic front bar would also be useful on longer trips. Very well done!

# Traditional Rig on Modern Small Trimaran

June 11, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Tryst Trimaran

## Comments

**William Genevro**

June 12, 2020

Nice looking boat and rig! What is the sail area? Any performance data? Would like to compare to the Marples 3 meter tri.

**Jerry Culik**

June 13, 2020

Beautiful job, John. You have given me something to try out on my Seaclipper 10 — Gary Dierking's rig — to avoid the "head knocker" effect. Please tell us more about your rudder design and how it works for you.

**Jan**

June 21, 2020

Hello and thank you for the kind words. The rudder is basically the same as Michael Storer's Oz Racer design, except that it has an arm for the offset tiller. The dagger board is also from the Oz Racer - I used to pay little attention to the shape of the foils until I tried this solution. The foil on the rudder and dagger board are the same shape and very easy to make. There are some very curious solutions out there for foils. but I think the best one is to purchase a copy of the Oz Racer plans (which also include a lot of other very valuable information).

**Small Tri Guy**

June 22, 2020

Great commentary on the foils designed by Michael Storer ... thank you for sharing!

# Seaclipper 16 OC (Nearly Finished) for Sale

June 18, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: John Marples, SC 16 OC, Seaclipper 16 trimaran

No Comments

# New Seaclipper 24 Trimaran Now Sailing

June 24, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Seaclipper 24, Seaclipper 24 trimaran

## Comments

**Bruce A. Alderson**

August 21, 2020

Beautiful story, and a beautiful boat. Yes, John Marples is absolutely terrific to work with. Fair winds and following seas.

Bruce A. Alderson



# Australis Bushranger Canoe with Double Outriggers

July 2, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Australis Bushranger Canoe

No Comments

# DIY Windsurfer with Stabilizers

July 2, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: trimaran windsurfer, windsurfer trimaran

## Comments

**Edong**

June 9, 2022

Nice modification! Do you have specs for that? I am interested to copy those since i have old windsurf board. Thanks

**Hien Ngo**

July 7, 2022

Dear Edong: I will update more this concepts, soon. Please wait.

All are opinions, not-yet into engineering. The specs are flexible.

Wide (include Stabilizers) is 46' to 50'.

Crossbars are made by old-windsurfer booms or by made of wood...

Thanks.

**Philip**

July 27, 2022

I am thinking of doing something similar. I Will follow this site to see your progress.

# Outrigger Sailing on Big River in Mendocino

July 3, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: double outrigger sailing canoe

## Comments

**Michael**

September 13, 2020

Very nice.

**John Avery**

November 20, 2020

Lovely little Tri lots of work went into this you must be handy with timber.

# Frog Sailing on the Water

July 7, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: frog small trimaran

## Comments

**Dutchy**

July 10, 2020

I have made a simular concept sailboat named "Woodmax". I am waiting for an action video of the frog.....

# The Ngalawa Cup Race

July 7, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Ngalawa Cup, Ngalawa outrigger canoe

No Comments

# Bigiw – a Traditional Philippine Watercraft

July 7, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Bigiw canoe, Philippine outrigger canoes

No Comments

# Kulik Inflatable Trimarans

July 9, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: inflatable trimaran, Kulik Inflatable Trimarans

## Comments

**W Hackmann**

March 4, 2021

I have a 3 metre french triac the amas are a bit small not enough buoyancy .Looking for 2 3 m inflatable amas .could you give me an approximate price with shipping to Australia .can supply measurements for connection point for the akas . Regards W Hackmann .

# Intro to Foam Core Boatbuilding

July 15, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: foam core boatbuilding, foam core construction

## Comments

**Jan Peter**

July 15, 2020

This method has been used by numerous home builders of farrier trimarans, which resulted in great trimarans.

**Dutchy**

July 16, 2020

I have seen the video. Great video, everything explained very well. Began however to wonder about the final weight of the boat. It is not given at the end of the video, but halfway (without epoxy it weighs 88 lbs).

Also noticed that the length of the boat is about 3,60 meter (look at picture of man and boat together). So not that long. Further on noticed that the thickness of the wands is much bigger than when making a boat of plywood. So the outside dimensions always have to be bigger than making a plywood boat. It takes a lot of epoxying, which is not a very friendly material for some of us. Anyway, even considering the possibility of rotting of plywood when getting wet, I prefer to work with plywood,

Kind Regards

Dutchy

**Small Tri Guy**

July 16, 2020

Thank you for the comment Jan,

I just want to clarify if this particular foam product (Airex foam), along with this particular method of using it shown in this video, used to build the Farrier tris?

**Hien**

July 28, 2020

Frame by Foam, Help me a brilliant idea for upgrading my project. Thank You.



# Unifloat – A Tiny Motoring-Fishing Platform

July 16, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: unifloat

No Comments

# Pedal Power with a 360 TriCat

July 19, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: 360 TriCat

## Comments

**Paul Lancisi**

May 26, 2021

I own a 2019 tricat 360 and am looking for another one for my Maine home. I can't seem to find one for sale anywhere. Any suggestions? Ty

**Sylvain Daly**

July 24, 2021

I have searched everywhere, including YouTube regarding the Blue Sky TriCat 360, and this is the only video I see on it.... perhaps because it's too new.

I like the great width & the ability to separate into 2 sections for easier transport.

I am interested in the duel pedal system so both can peddle, but can an outside trolling motor be installed? Which trolling motor will work?

What accessories can work with this model?

I saw a Blue Sky Bi-Kayak with a roof Platform with a ladder to climb up to the roof, so will this work for the TriCat?

**John**

April 27, 2022

Is the Tricat still being manufactured for 2022?

**Toby Bowman**

April 28, 2022

Someone needs to make more tricat fishing videos, I would like to know how to get a Blue ski boat works store in my area, there's a huge market for it here. Pensacola area

# Windsurfing on a Windrider

July 20, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Windrider, windsurfing

## Comments

**Hien**

July 28, 2020

Everything relate to Windsurfing. I love all. First times to know "Sit-Down-Windsurfing". Thank You to The Explanation. Thank You.

# Etupirka Outrigger Sailing Kayak

July 20, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Etupirka, Etupirka kayak

## Comments

**Christopher Smith**

June 1, 2022

This is an awesome looking kayak sailer!

# A Bit of Silence in Hungary

July 22, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Hungarian Silence Trimaran sailboat, silence trimaran

## Comments

**Bernard**

December 29, 2022

Hi, does the foiling system work, do you have a video?

I saw this trimaran land on the lake side in 2019 with a mast problem, I am thinking about adapting foils on my FARRIER F9RX trimaran.

Bernard (from France)

# One Last Adventure in Crosswins

July 23, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Cross 18, Cross 18 trimaran, crosswins trimaran

## Comments

**Jim**

September 30, 2020

I don't own a dry suit, but I bring extra clothes and my Milwaukee heated jacket. Along with plenty of batteries.

I own a Windrider 17 and I know how fast you can get extremely chilled to the bone. When windsurfing it's even worse. I'm planning a Lake Michigan crossing. Bringing two removable fairings. 1 of the fairings is smaller, more aerodynamic, and the other is taller to reduce wind and less spray. One thing if your crew member's health is a concern then getting him to shore is #1 priority over everything! People can go from bad to worse in less than you can imagine!!!

# Getting Squirt Ready to Sail

July 23, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: squirt trimaran

## Comments

**Hien**

July 28, 2020

Brave-Heart Idea. Love It. Thank You.

**Yasuo ueda**

February 14, 2022

Nice to meet you, it's a great yacht.

Where are the files?

I want to make it, so please tell me.

Yasuo

**Small Tri Guy**

February 14, 2022

Hello Yasuo,

There are no building plans for this boat. So sorry. It is certainly understandable why you would like to build one for yourself. :-)

# DIY Cartop Boat System

July 28, 2020

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: cartop boat, how to cartop boat

## Comments

**Small Tri Guy**

October 25, 2020

Small tri sailor just shared the following with me:

“Advanced smart version, can be adapted to manual rope tackle and wood frame ( in my view)”

[https://www.youtube.com/watch?v=m\\_uO7K6-bGY&t=91s](https://www.youtube.com/watch?v=m_uO7K6-bGY&t=91s)



# Watermouse on Sail

July 28, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: watermouse small trimaran

## Comments

**Hien**

July 28, 2020

Love and Learning This Style. Thank You.

**Jan de Wijn**

July 30, 2020

Ziet er net echt uit man!

**Christofer Olsson Kedborn**

August 1, 2020

Good work Hans!! Looks slick in the water

# Yellow Single-Seater Sailing Kayak

July 30, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger kayak, sailing kayak

No Comments

# Fishing Canoe with Two Small Floats

July 30, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: fishing-canoe-small-floats, outrigger-fishing-canoe

No Comments

# One Sheet Canoe Outriggers?

July 30, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: one sheet canoe outriggers

No Comments

# Libertist 703 In Production

August 4, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Libertist 703 trimaran

## Comments

**Small Tri Guy**

August 5, 2020

Erik, the sailor who let me know the 703 is now in production, just emailed, "You might be interested in this list, comparing cabin trimarans 7-10 metres of length: <https://www.segling.info/oversyn> "

**kevin.conley**

December 9, 2021

i could not get the link working. any suggestions? [conley.kevin@gmail.com](mailto:conley.kevin@gmail.com)

**Small Tri Guy**

December 9, 2021

The original page I linked to changed to another one. The new link to the 703 model is working again (at the time of my comment here).

# The Pasquale Trimaran Sea Adventure

August 7, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Pasquale Trimaran, Pasquale Trimaran Sea Adventure

## Comments

### Diogo Nunes

August 7, 2020

We had great camping adventures with these small trimarans.

### Dutchy

August 8, 2020

Hello Diogo, This is fun like a Weta. I do like this concept. I am sailing the "Woodmax" trimaran (also on this website listed)

Sailing with little outriggers just gives so much more sailarea you can handle and generates a lot more fun !!

Great video.

### Diogo

August 9, 2020

Thanks Dutchy. It's not so hi-tech like a Weta ( and i believe not so fast), but is fun.

I think in build new floats, with more volume. They are small for the size of the boat.

### Hans Schipper

August 13, 2020

Looks good Diogo! Real sailing in rough circumstances for a small boat! Maybe longer beams and stabilizing foils on the ama's will give the same or a better result than bigger floats.

### Dutchy

August 13, 2020

Hello did you see my trimaran "Woodmax"? I think you can learn a lot from my project. It has 2 m long pvc ama's. Width of my trimaran is about 4 meter. Length is 4,75 meter, Ama's have little buoyancy (each 25 kg). That is why there is foil support. This helps a lot supporting stability and increasing speed !!!! I already went over 20 km/hour...and still gaining more speed at lower windspeeds.

To you I would recommend small foils on each side at the front of your existing ama's

New, longer/bigger ama's, would only add weight and decrease the way your trimaran is in balance. I have seen your video; the balance is good the way it is now.

### Diogo Nunes

August 14, 2020

Sorry my bad english guys. The problem is, in stronger winds, the ama's turn into submarines. The drag brakes the boat. There is an article (Tony Grainger ), that says about the size of the amas. For better performance, they need to have the same size of the main hull. But, anyway, i will look careful the foils. Thank you.

### Diogo Nunes

August 15, 2020

Thank you guys. I will think about these modifications careful.

### Hans Schipper

August 20, 2020

Cuando aumente la estabilidad, también habrá más presión sobre la vela y el mástil. En el video ya puedo ver el mástil bajo tensión. Para evitar roturas, creo que se necesitan soportes laterales. Esto también aprieta el grátil del foque para que pueda navegar más alto contra el viento. (con programa de traducción así que espero que no haya demasiadas locuras ;-).

### Diogo Nunes

August 20, 2020

Thanks Hans. In Brazil we speak portuguese, but we understand a little spanish too. I use lines to secure the mast.

### Dutchy

August 25, 2020

Hello Diogo,

Hans is right about lining up the mast and his remark about the jib. I hope that you can manage the adjustments you choose to make. If you have any questions you can ask them here. Hans and I have built our own trimarans so we have a lot of practical knowledge. Keep us informed about your progress.

Good luck, Dutchy

# Caiaque Trimaran à Vela Extreme Adventure

August 9, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Caiaque Trimaran

No Comments

# Stand N Fish System

August 20, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Stand N Fish

## Comments

**keith**

August 14, 2021

i have a new kayak for fishing/ i looked at your video i like it where can i buy one

**Trygve Thomassen**

April 11, 2022

i like it olso , but i need the aoutrigg to stay strait , becaouse when i paddel small river it will be to wide , i have a Boreal Baltic 120 , and like to have one , but then the outrigg must go oll up , is that posible ??



## 2 Trimaran Designs from Nimbus Boats

August 26, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Malcolm Barnsley, Nimbus 9 trimaran, Tridory 15 trimaran

### Comments

**Diogo Nunes**

August 28, 2020

Interesting boats, the 15 ft one looks powerful.

# Dialed-In Watermouse

September 3, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: watermouse small trimaran, watermouse trimaran

## Comments

**Diogo Nunes**

September 3, 2020

It's amazing Hans. Congratulations.

**Hans Schipper**

September 5, 2020

Yesterday I could make a video with about 10 knots wind. <https://youtu.be/mQCdxRLLZs0>

**Dutchy**

September 11, 2020

Hello Hans, nice small trimaran. Do you still sail your large trimaran ?

**Hans Schipper**

September 21, 2020

Hi, Dutchy, thanks. When the wind is below 3 beaufort I sail the watermouse and with 3 til 5 beaufort I sail the triple B

**Dutchy**

September 24, 2020

Hello Hans, I understand.

This year's sailing is over for now, it is getting to cold, but next year, i will sail at the Eemmeer some time. I have seen that at Nijkerk there is a spot suited for getting into the water.

Hope to see you on the water when I do.

Kind Regards

Dutchy

# A Peek at the Triptyque Trimarans

September 9, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Christophe Maurel, Triptyque trimarans

## Comments

### **Walter Webster**

September 24, 2020

Mr. Maurel's website, for several of his craft, says " L'association peut vous fournir les plans." which translated means " The association can provide you with the plans."

My response to that is "Quelle association ? Je ne vois ni nom ni adresse." which means "What association ? I see no name or address. " Sure would like to get the plans for the 12 and the 18 !!!

### **Deric Tallman**

October 15, 2020

I wrote to the contacts on their website by email requesting information to purchase the plans for the 18....that was two months ago. I received no reply.

It sure is an interesting boat.

### **Small Tri Guy**

October 15, 2020

This certainly is a shame Deric. As you've probably already discovered, so many of the small tris we've featured on this site are not obtainable for various reasons. Boats once produced commercially can't be purchased any more because the businesses are no longer in operation ... or building plans of boats meant for building by would-be sailors aren't obtainable from the designers, who no longer reply to inquirers. Perhaps the good concepts of many of such craft can be persevered with the help of websites like this one.

### **Andre Cocquyt**

November 12, 2020

Does anybody have more details on the ama retraction system?

### **Jan Cudak**

November 12, 2020

I exchanged emails with the architect last year because I wanted to buy plans for the 18. They are (very unfortunately) unavailable.

### **Andre Cocquyt**

November 15, 2020

Mr. Maurel got back to me, the plans for DIY construction for the Triptyque 24 are available for 400 euros.

# Astus 14.5 In Development

September 16, 2020

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Astus 14.5, Astus trimaran

No Comments

# Woodmax Gets a Jib

September 21, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: woodmax trimaran

## Comments

**Diogo**

September 28, 2020

Great Hans. Enjoy the new sail.

# HydroRunner – PWC DIY Build

September 23, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: hydrorunner

No Comments

# Simple Kayak Outriggers

October 2, 2020

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: kayak outriggers

No Comments

# One Version of an Open Water Bike

October 6, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: V16-64 pedal boat

No Comments



# Tin Canoes (Double Outriggers Too)

October 15, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: tin canoes

## Comments

**Dutchy**

October 15, 2020

Great video !

# Trimaran Sailing PDFs

October 15, 2020

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: how to sail trimarans, trimaran sailing manual

No Comments

# New Canoe with Canoe Outriggers

October 22, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Michael Storer, outrigger canoe, sailing canoe

## Comments

**Michael Storer**

October 29, 2020

Thanks for putting this up Joe!

The Canoe is the Eureka Canoe.

The outriggers are a separate design that drops into many different canoes. It is lashed in place.

Information on both (and other canoes and sailing canoes) is available on this page

<https://storerboatplans.com>

There are several of these hybrids launched. The one in this link is Daniel in Uruguay in a bit more wind. it is interesting the hull dynamic as more load comes on the hull the more the bow rises ... even with an adult in the bow seat. Pretty interesting.

<https://www.youtube.com/watch?v=E4xDe4L9D6k>

MIK

**Rene Bastarache**

October 30, 2020

Thank You Small Tri Guy for posting my Sea Biskit build. It was truly exciting to see it float for the first time.

Michael Storer designs where I purchased the plans for it, is the very best. Top ranked service and support for the entire build and then some. I highly recommend them

# A RAID in the Middle of Uruguay

October 22, 2020

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: boat RAID, Trika 540

## Comments

**Santiago Grun**

October 23, 2020

It was a really beautiful raid, I was on the other boat named "Perverso".

Three days, two nights in tents. We sail 22 NM.

The other three boats were "Safur", "Paquinho" and "Akrata"; 9 people.

It was a terrific experience with my friends.

It's recommended.

# Seattle Horstman TriStar 18 Daysailor

October 25, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Horstman Tristar 18 trimaran

No Comments

# Making Amas with Polystyrene Foam

October 30, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: foam amas, polystyrene amas

## Comments

**Hans Schipper**

November 1, 2020

I prefer to use the styrodur XPS plates. In the thickness of 20 mm you can build round on rafters of the same material. Due to the higher compressive strength of this material, a finish with 2 layers of 200 grs / m2 is sufficient.

Laminate a piece of plywood or tube to attach the beams.

With this even lighter way of building you have a lot less waste. In this example I used 30 mm XPS.

<http://smalltrimarans.com/blog/really-two-thirds-of-a-trimaran/#more-16287>

# Double Outrigger Canoe Ready to Go in GA

November 6, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger canoe

No Comments

# Self-Righting Ocean Rowing Trimaran

November 11, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: rowing trimaran

No Comments



# 1983 Micro Multihull Design Symposium Documents

November 28, 2020

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: 1983 micro multihull design, Multihull Design Symposium

No Comments

# Racing Sloop Tri-ing Surf Boards

December 14, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: small racing sloop trimaran

## Comments

**Matt P.**

January 4, 2021

That looks like an early fibreglass GP 14. Probably built in the 1960s. I would be wary of hanging a steel centreboard from the centreboard case unless you have added additional reinforcement.

**Tris**

April 29, 2021

I did add more glass around the center board box with the added glass layer floor. One note not made that i love is the steel board acts like a perfect emergency break from hitting dock or shore in high speed returning home. The electric outboard makes backing up to the dock in high wind real neat. I love the steel C-Board BUT its hydro drag is a drag.

btw everyone calls me Tris so reading stories here feels like home.

**tris**

April 29, 2021

Also the steel c-board anchors my floating dock from high winds that move it a bit too much. I had to add seat level horizontal reinforcing as the box would flex in power boat waves possibly cracking a leak.

That floater raft dock stays afloat all winter as its plastic barrels don't mind being frozen in ice. However the 4 leg movable "table dock" connecting it to the shore doesn't fare well when the wind blows with the entire pond's 250 acre ice sheet recently freed from the shore lines in a spring thaw makes it a huge demolition slab taking everything it wants wherever it wants if the wind blows the wrong direction toward my shore vs away.

**tris**

April 29, 2021

Also,,

the steel c-board anchors my floating dock from high winds that move it a bit too much. I had to add seat level horizontal reinforcing as the box would flex from power boat waves possibly cracking a leak.

That floater raft dock stays afloat all winter as its plastic barrels don't mind being frozen in ice. However the 4 leg movable "table dock" connecting it to the shore doesn't fare well standing in the ice when the wind blows the entire pond's 250 acre ice sheet that is recently freed from the shore lines in a spring thaw. It makes a huge demolition slab taking everything it wants wherever it wants if the wind blows the "wrong" direction toward my shore vs away.

# Very Small Trimaran in Louisiana

December 15, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: very small trimaran for sale

No Comments

# Bora Bora Sailing Canoes

December 15, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: sailing canoes

No Comments

# More Pics of the Mini-Hydroptere Foiling Trimaran

December 21, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: foiling trimaran

## Comments

**Dutchy**

December 22, 2020

Great pictures, Thanks Jim for sticking out your neck and try to fly !! you did it !!!

I asked Jim a while ago why he stopped foiling and his answer was that parts kept getting destroyed and then had to be repaired again. It took too much effort. He now has a "normal", non-foiling, trimaran. ( Also to be checked out on this site).

Seems that creating a strong, light and effective foiling boat is quite an challenge.

Anyone aiming for this goal next summer ???

**Jim Gallant**

December 27, 2020

It only broke when there were 2 of us on board. The additional 200 pounds made a difference. Lots of powerful forces going on there.

**Dutchy**

December 28, 2020

Hello Jim,

Indeed a lot of powerful forces !

I managed to get airborne one time with my trimaran "Woodmax". This was not my intention, but it took place because I added the jib while I should not have done this (20 knots of wind). What happened was: "Woodmax" got airborne for a few seconds, than the leeward foil broke, I splashed into the water again, and from that moment on I suddenly only could do broad reach. This was of course due to the sudden lack of the lee foil.

Because the Yachtclub came closer and closer fast I had to do a gybe. I was with some luck I managed to do the gybe well. From there it was easy to control "Woodmax", because now I could use the non-broken foil. I rushed to the beach and realized I was lucky because I could have damaged a lot of boats that were moored at the Yachtclub.

After this event I realized that too much beam is making a trimaran quite more vulnerable. Because the vaka has no lift itself, there must be a lot more sideway forces on the foil. I think that is the explanation for breaking the foil.

Jim, What is your opinion on this ??

**ian**

December 29, 2020

The conversation above is almost identical to what you hear when taking to people about off-roading- it's lots of fun and very exhilarating even when you aren't racing but even when you try to take it easy and use the best purpose built equipment, broken parts and related down time are part and parcel of the activity and a lot of people just get tired of that.

also re: powerful forces- not that there's any simple replacement that's readily available or without drawbacks (so no fault in using one), but it continually boggles my mind that the marconi rig portion of this kind of equation has seen so little developmental change while the boats underneath that rig have changed \*so\* radically from the ones that the marconi rig was originally developed for...especially boats that "fly".

The force vectors of that type of rig will always be at odds with the ones developed by the boat proper trying to remain upright (whether by amas or ballast or fore/aft buoyancy) as long as that kind of rig is the standard...again, not an indictment of anyone or their boat/rig but the point is that when you add more force to counter force the result is a more forceful blow up when it stops working...and with a foiler (or jumping a windsurfer) that landing transition or just a random wave can easily spike the combined forces well past that point.

**Dutchy**

December 30, 2020

Hello Ian,

About the marconi rig configuration or bermuda rig: Yes you are right. Maybe you checked my boat "woodmax" ? You can see that I use a cambered surfboardsail. This was an cheap solution avoiding expensive sailboat sails. Because of the cambers it works quite well. A few weeks ago America's Cup had their beginning with the new flying boats. 75 foth (AC75) foiling vessels. In the video I saw the sail configuration and you can see the difference to "normal"sailing sails.

About "when you add more force to counter force the result is a more forceful blow up :"

Would adding a foil beneath the vaka be a solution ?

**ian**

December 30, 2020

Hi Dutchy,

I do remember reading about your boat and just looked those older posts back up to refresh my memory...it's a great adaptation and makes sense, but being stayed in a vertical position you lose a lot of the vertical lift that a traditional windsurfer sail can generate as it is canted to windward....if you look at high performance windsurfer videos that angle can become so extreme that almost all of the thrust being generated is vectored downwards, and when combined with some forward inertia those things can literally fly completely free of the water-

<https://www.youtube.com/watch?v=858wpO3ia4o>

As the father of modern planing sailboats Uffa Fox liked to say, if you want a sailboat to go faster, "Simplify and add lightness"...the second part can be addressed through lighter construction and materials but adding that kind of upwards thrust does it too, and unlike foils does so without creating nearly the same issues with water drag and especially the compounding of the forces being generated by that drag.

The other thing is that that canted orientation helps soften those extreme load spikes on touchdown, which is how windsurfers can make those extreme jumps and (maybe) not disintegrate on landing.

As for the AC75 and similar boats/rigs, it's an advance but still an advance on the fixed mast/vertical luff concept that generates lots of opposing forces as you try to keep it upright. It's funny you mention them because I've been seeing coverage of the Vendee Globe race where many of the the IMOCA 60's are foil equipped and some are literally being torn apart by the kinds of forces and situations we're talking about.

That's certainly not exclusive to foilers by any means, and more of a reflection on racing and related design rules and attempts to work around them...but imo it also points out the fallacy that lots of money and exotic materials and foils can keep advancing while the rig designs remain mostly stagnant with just a few tweaks here and there.

Like I said, there's no simple solution that doesn't come with significant drawbacks as far as cost/complexity and ease of use and adaptability outside of extreme performance/racing scenarios...but none of those are given much consideration in those circles to begin with so it baffles me that something like swinging a massive ballast keel or giant foils around becomes standard procedure but doing the same thing with a rig (that is usually much lighter) is still treated by many as crazy talk and racing rules often discourage that kind of development.

Bottom line is that all of the sailing max. speed record holders since 1986 except two have used a rig that cants to windward- l'Hydroptère is one of those exceptions (Yellow Pages Endeavour is the other) and is probably the best example of that kind of boat that manages to still be mostly boat-like and capable of normal sailing as opposed to straight line speed runs in one direction.

#### **Dutchy**

December 30, 2020

Hello Ian, thanks for responding..

I have done windsurfing from the age of 16 to 35 years old. I had a short slalom board on which I could reach speeds like 40 km/h (21 knots). I agree with you that when you start you need to cant to windward to have lift to get going. You need this because of the lack of volume of the board (mine had 102 liters). When you are up then you still need to cant to windward because you need the board to accelerate faster than its hull speed. When you speed up from this, it is all about reducing wetted area. You could still think about canting to windward but because of the less amount of friction of the board to accelerate the sideways pressure is also reduced. This means that now you want maximum sail area. Yes, this means that you put the sail right up. Second reason for putting sail straight up is that grip in the water is very important. Still canting at increasing speeds will make you loose grip in the end. Then you will crash.

The AC75 which is 75 foot long has a very high hull speed. At this speeds the foils are able to rise the boat out of the water. The variable angle of attack helps a lot too ofcourse.

A sailboat of 16 foot, like I have myself, also needs to reduce wetted area to exceed her hull speed. In my case the one foil on the leeward side does the trick. (The foil on the windward side is pulled out of the water). I manage to speed up to above 20 km/h (about 12 knots) when I am doing Beam Reach. From there it is hard to speed up any more. So I wonder about what is helping me to improve my speed potential.

Adding an extra foil close beside the vaka or beneath the vaka ?

PS.1

I also have done some calculations last summer about having the possibility of manual canting the mainsail to windward. I probably will try this out coming summer.

PS.2

I do not think we can speak of a sailboat, in my humble opinion, when it is limited to going in one direction

#### **Jim Gallant**

January 6, 2021

Dutchy, regarding your comment:

"After this event I realized that too much beam is making a trimaran quite more vulnerable. Because the vaka has no lift itself, there must be a lot more sideways forces on the foil. I think that is the explanation for breaking the foil. "

I don't think beam width matters. For my boat, you generally want to keep the mast vertical rather than canted to windward or leeward by heeling the whole boat. I think my sails generate optimal lift when vertical. With a narrower beam, you'd need to have more weight on the windward side to keep things vertical in big wind. A wide beam enables you to go further outboard and apply more leverage to righting the mast. Part of the reason I chose the width I did is to match the design of the 90s Hydroptere prototype I was copying. I figured theirs worked, so the chances of mine working would be better if I stuck to their design. Note that my main foils had windsurfing slalom fins laminated on their tips so they stuck straight down when the foils were deployed down at their 45 degree angles. They acted very well as little daggerboards. You don't

need much daggerboard surface area at foiling speeds. One broke off twice and dramatically affected the boats ability to fly and stay windward when it did. I put tons of carbon cloth on the joint where that thing connected and it still broke. Like I say, lots of forces going on there.

### Dutchy

January 7, 2021

Hello Jim

I just took another look at your foiling vessel and noticed that you had a centerboard stick out (partly) during foiling. This will take of the sideway pressure of the leeward foil ofcourse.

In my case, I do not have a centerboard or a daggerboard, so all te sideway pressure is on the leeward foil. (To correct myself: ofcourse de rudder takes some pressure too).

Like your foiling vessel, my foils have also a short more vertical part. The normal foil area is at 50 degrees to the vertical. The lower part has an angle to te verticaal of 60 degrees. This area is about 6 inch long. Angle of attack of the foils is aprox. 10 degrees.

About the length of the akas. There is a max. beam-to-length ratio for multihulls. In the early days trimarans had a beam-to-length ratio of max. 0,75, meaning that the beam was 75 percent of the waterlength of the trimaran. Nowadays this factor is even higher than 0,80.

Reason for a maximum beam-to-length ratio is that while increasing beam it is more difficult to accelerate. If you would have a beam-to-length ratio of let's say 1,5 the trimaran would not accelerate and would only go sideways. Reason is that in this case the center of force is too far away from the center of friction. The reason that the beam-to-length ratio is higher than 0,8 is the far more effective sails we now have.

So a longer beam is not always better...

### ian

January 13, 2021

I realize this isn't small tri related but in the context of earlier comments I wanted to add this commentary from an article I just happened across-

“With the AC75 we have entered another dimension, where aerodynamics are more important than hydrodynamics.

“In fact, we speak of flight, not navigation. And the seafaring skills of the crew are no longer enhanced, but other characteristics are required of the latter.”

Bonadeo, the former commodore of the Costa Smeralda Yacht Club and president of the Azzurra campaigns in 1983 and 1987, also echoed the opinion of his skipper from those campaigns, Cino Ricci.

“I don't see the sails changing, I don't see the men moving together on board to carry out the intuitions of the tactician and the helmsman,” Ricci told La Stampa in a separate interview last week.

“In short, I don't see the art of sailing. Which for me means taking advantage of the wind according to its variations and the sails I have available.”

<https://www.nzherald.co.nz/sport/americas-cup-2021-calls-mount-among-experts-to-ditch-foiling-mega-boats/ZVO7UL2PMMAXWHVL7L7ECKDB2Y/>

Personally I don't agree with the idea that foiling is “not sailing”; it's just a different type of sailing...but when I read that it immediately brought to mind Dutchy's comment that a specialized sail powered vessel that can only go in one direction isn't a sailboat, which I also respectfully disagree with...it's just a different type of sailing.

But more importantly the AC skipper's casual and total dismissal of changes to sails really stuck out as inexplicable, especially as the rest of the article casually speaks of creating entire new classes of giant sailboats and related tech like it's no big deal.

Bottom line take away for me that \*is\* trimaran related is that all of it seems indicative of an almost pathological resistance among the higher echelons of sailboat racing to ever allowing traditional displacement multihulls to gain a foothold...when the BMW Oracle team's giant tris ruled the AC roost the main complaint was that they were too big and complex and unwieldy... and dangerous when they flew the center hull-

“When its center hull clears the water and the craft seemingly takes flight, riding on only the knife edge of a single float at about 20 knots, it's a spectacular sight...

And despite the thrill it gives the sailing team, there's still a bit of tension in the air whenever the big boat lifts off the water. For each voyage, the boat's tenders carry — in addition to telemetry equipment monitoring onboard sensors — a physician and scuba divers in case of emergencies.”

<https://www.seattletimes.com/seattle-news/the-bmw-oracle-racing-90-trimaran-is-a-lot-of-yacht/>

# DIY Sailing Kayak with PVC Outriggers

December 30, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger sailing kayak, sailing kayak

No Comments



# New Amas for a Kayak Trimaran

December 31, 2020

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: sailing kayak trimaran

No Comments

# Unique Seaclipper 32 Trimaran

January 13, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: seaclipper 32 trimaran

## Comments

**Brandon W**

January 25, 2021

Thanks for the post Roman, clean looking boat! Love comment about the 2 bilge rats!

**Jason**

May 31, 2021

Roman-

I have Seaclipper 34 plans and have conversed with Mr. Marples a good bit. But I am hesitant to build without speaking to a Seaclipper 34 builder or owner and ideally seeing one in person. Any chance you have time to talk about your boat?

# Traditional Zanzibar Wood Trimarans

January 19, 2021

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: Zanzibar Wood Trimarans

## Comments

**Hans Schipper**

January 20, 2021

Great inspiration to keep it simple!

**Tom**

January 20, 2021

My takeaway was the high tech cording used to join the sections of the aka...crossbeams.....somewhat similar to webbing that is sometimes used.

# Building an Eagle Motor-Powered Trimaran

January 24, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: eagle power trimaran

No Comments

# Adventure Trimarans in the UK (Coming)

January 27, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: adventure trimaran, astus 20.5 trimaran, sting trimaran

No Comments

# Traditional Outrigger Lashings

February 2, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: outrigger canoe lashings

No Comments

# Kanka 14 Trimaran Now Available

February 7, 2021

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Kanka 14 Trimaran

No Comments

# Indonesia & Philippine Small Trimarans

February 11, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Bigiw outrigger canoe, Samaloutrigger canoe

No Comments



# Small Ice Trimaran

February 18, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: ice trimaran, sailing ice trimaran

## Comments

**Hans Schipper**

March 2, 2021

Great video! Great little project!

And you see that a lot fits within the definition of a trimaran ;-)

# Sailor's Trimaran Projects

February 25, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: self built small trimaran, Self-built trimaran

## Comments

**Hans Schipper**

March 2, 2021

A nice collection of trimaran experiences!

You could still make some modifications to your trimaran by adding small foils to it. Not to fly, but to gain some lift and increase stability.

**Jim Gallant**

March 6, 2021

Yeah, I've pondered this. Not sure it really needs it yet.

**Dutchy**

March 16, 2021

Hello Jim and Hans,

Small foils will not give you a positive outcome when you place the advantage (more balance/lift) against the disadvantage (friction increase).

To have profit of foils they need to have a small chord to length ratio.

If you do not believe me look at the "rc trimarans" that are around on the internet.

All these trimarans have relatively long foils with small chords

Kind Regards,

Dutchy

# New Scarab 10 Trimaran (Plans Available)

February 25, 2021

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: scarab 10 trimaran

No Comments

# Multiple-Powered Pedayak

March 7, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: PEDAYAK, PEDAYAK TRIO

No Comments

# Maora for Sale

March 12, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Maora

No Comments

# CastleCraft Canoe & Kayak Stabilizers

March 12, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: castlecraft

No Comments

# Triton Trimaran for Sale

March 21, 2021

Categories: Small Tri Info - All

Tags: Triton trimaran

No Comments

# Mad Dash (for sale) & Sailing Report

March 26, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Seaclipper 20 trimaran

No Comments



# Electric Pilot House Trimaran for Sale

April 1, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: electric pilot house trimaran

No Comments

# Flying on the Water in Lithuania

April 8, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: sailing trimaran, trimaran in Lithuania

## Comments

### **Stefano**

April 8, 2021

Beautiful boat and beautiful workmanship. It would be useful for sales purposes to learn the following:

Boat weight, weight on trailer, width on trailer, length on trailer. If the trailer is EU registered and when (there may be complications in registering it in other countries of the EU otherwise). Thanks in advance, Stefano

### **Hans Schipper**

April 11, 2021

It seems to me a good designed and well constructed boat for a reasonable price!

Wish I was younger

### **Eimutis**

April 11, 2021

Ship weight 1500 kg. trailers 450kg. the trailer is registered in the EU, the vessel is also registered in the EU.

### **Dom**

May 1, 2021

Wow. Lovely craftsmanship. Looks like it optimises space in the hull for cruising.

What an interesting design.

# Another Pedal Tri (on Pintrest)

April 20, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: pedal powered trimaran, pedal tri, pedal trimaran

No Comments

# Firebird Power Trimaran

April 21, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Firebird Power Trimaran

## Comments

**Jason Freeborn**

May 16, 2021

This is a boat that I know well. Formerly owned by my good friends, and kept for eight years or so on my UK moorings when I had a creekside home.

She was built in Cornwall at Modular Mouldings by Bob Caracao in around Y2000. She was very much the prototype. Bob sold it to my friends and then built himself a catamaran version with two Yanmar 28hp engines. That boat, a development of this one, has a palatial cabin on the bridgedeck and sips fuel on one engine at 9 kts, so it's much faster than a 50 foot sailing boat, but without the slamming and discomfort of a V hull powerboat.

We used Tripella, as she was known, quite a lot, running her on biodiesel for a short while. Back then she had a 28 hp Yanmar 3GM, which gave her 18 kts on flat water with one crew. She is VERY sensitive to weight.

She also needs a (retractable ?) fin up forward, about 30% of the way back from the bow.

We took her out for sea trials in about 2005...

The boat wouldn't turn up into a 25-28 kt beam wind in a short, steep sea. I had to go right forward inside, with the second of three crew close behind me. That put the forefoot deep enough in the water to bite so she would turn. We had tried slow speed, high speed, full rudder, half rudder, but nothing apart from the weight distribution made a change. Once we were pointing into the wind we could steer, but she wouldn't answer the helm in a near-gale cross wind. We ran to the uphill side when a gust got under the bridgedeck too; all three of us were dinghy sailors! She got to about 45° and came back. Wave length was about 2 x her beam. Height 2m.

She now has an increase in weight with her 55hp Ford, which will make the cross-wind steering problem more urgent, though I notice she has trim tabs which are an upgrade too. That extra wight will help prevent a wind-blown flip too.

A possible alternative to a fin may be a peak tank, like merchant vessels have, for trimming the forefoot into the water.

The boat has had a lot of love, and looks fantastic. It will be a great boat for someone and their family.

**Small Tri Guy**

May 16, 2021

Thank you for sharing these great details Jason!

# The Vortex Podracer

April 28, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: vortex podracer, vortexpodracer

## Comments

**Robert Stewart**

April 28, 2021

This looks like soooo much fun!

# Motorized Kayak with Outriggers

April 28, 2021

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Motorized Kayak

## Comments

**fletcher**

May 21, 2021

running a modified Triak on fresh water in New England

**Small Tri Guy**

May 21, 2021

This one is very Triak-like.

# Small, Super Simple Trimaran

April 28, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: small simple trimaran

No Comments

# Squirt Trimaran Update

May 4, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Eric Dahlkamp, squirt trimaran

## Comments

**Bob Paine**

May 7, 2021

Like the way you fitted the oarlocks on the amas. I put them on the vaka (see my Snipe Hobie trimaran on this blog). This works okay for moving the boat in light winds or helping push the boat through a windy tack; however, they are really too short to get any torque in heavy winds to get out of the grass and into the lake. I have tried a Minkota 55 and a 2.5 hp 2 stroke; however, still a little anemic in pushing the vessel through the grass into the open water when the wind is coming at me at 12-20 knot gusts. Your set up appears to give plenty of torque and circumvent the problem of a prop getting choked out in the grass and the boat getting blown back into the weeds. Your oarlocks appear to be production manufactured. If so where can I order these for my Snipe Hobie tri? I already have the 9 foot oars on my sliding seat rowboat. Thank you and your boat appears to be a marriage of function and beauty.

**Eric Dahlkamp**

May 31, 2021

Hi, yes oarlocks are from Duckworks Marine Supply and risers I cut down from standard SeaEagle raft ones. Took 2+ inches from middle of riser the re-epoxied back together and reshaped. Mounted to wooden base. Worked out real well. Can row standing or sitting. Hope this helps.

<https://duckworks.com/1-2-gaco-oarlock-sets/>

<https://www.seaeagle.com/Accessories/oars-paddles/set-of-2-oarlocks>



# Moth to Tri

May 4, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: moth trimaran

No Comments

# Aquadyne Sailbird 18 in Texas

May 4, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Aquadyne Sailbird 18, Aquadyne Sailbird 18 trimaran

## Comments

**Jim Beerstecher**

June 1, 2022

Thanks for the great share. I found this site and your story while researching that same boat, for sale about 1500 miles east and north of me, here in Houston. Such a lovely design. I'm not gonna drive that far, though, with gas at \$4.50 a gallon and my Tundra sucking gas like a boat hull pushing beyond it's optimal hull speed. But, if anybody's interested, here's the link: <https://charlotte.craigslist.org/boa/d/charlotte-sailbird-trimaran-18ft/7483128443.html>.

# Wheelchair Adaptive Stand-Up Paddleboard (WASUP)

May 4, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: WASUP, Wheelchair Adaptive Stand-Up Paddleboard

No Comments

# Sponge Bob Square Outrigger

May 6, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: kayak trimaran, sailing kayak, sponge-bob-kayak

## Comments

### David

May 7, 2021

This design was originated by B&B Yacht Design in North Carolina. They've now got an updated design called the Mini Trimaran that should be available as plans or a kit soon.

### Small Tri Guy

May 7, 2021

Thank you David ... I am going to feature their "mini tri" in my next post.

### SpongeBob

May 10, 2021

Thanks for the little write up on my tri SpongeBob. The pics are a bit dated, she now sports a kick up daggerboard rudder, all carbon with no stainless. Far superior to the very weak swing up style.

She sails well, much faster than Hobie TI or Windrider 17 and really flies with the spinnaker.

SpongeBob

### Small Tri Guy

May 10, 2021

Thank YOU for sharing some more details SpongeBob!

### TomH

May 11, 2021

SpongeBob - have always loved you (the boat) - would love to see pics of what you've done with the rudder assembly.

More comments also on what specifically makes SpongeBob so much faster?

Thanks,

TomH

### SpongeBob

May 14, 2021

What makes SpongeBob faster than TI or Windrider, in Chris White's words, long lean and light. The main hull is over 18', the main hull beam is 20" and the designed weight is 125lbs. Of course the sailing weight is considerably more with me and all the required Everglades Challenge equipment but so would the other boats. Using the standard TI mast and sail the boat is under rigged in less than 10kts of wind but a bit more wind and good things happen. Max up wind seems to be around 9kts and off the wind with spinnaker high teens. The limiting factor in high winds is the carbon mast. The bend to leeward gets crazy acting like a shock absorber in gusts. The pressure on the mast step is immense. I have reinforced the step and adjacent hull several times. What slows me down the most in the EC is my need for sleep not the boat.

### TomH

May 15, 2021

Thanks for sharing your experience.

The B&B stable can be a breeding ground for such speed.

### Thom Davis

May 20, 2021

This is similar to a Triak expedition kayak which I owned for a while (<http://smalltrimarans.com/blog/triak-modifications-for-bigger-sailing-winds/>). I always wished I could get out of the cockpit and sit outboard to counteract sail forces, but the Triak was set up for only pedal steering which is why I had to expand the floats. This looks like an improvement in that regard (Jzerro "like"). I did like the sit inside kayak versus the sit on top like a TI. Another issue with the triak was the hull form was very much displacement hull and couldn't be pushed much more than 12 kts. Got rid of it since I do like to move about while sailing and stuck in one position for a couple hours was not fun for my old bones.

# Mini Trimaran (from B and B Yacht Designs)

May 12, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: double outrigger canoe, mini trimaran, outrigger canoe

## Comments

**Thom Davis**

May 14, 2021

Sort of a windrider 17 without some of its flaws; notably not made of plastic and has a daggerboard instead of a keel. I don't see how it is going to get enough backstay on the mast to enable that spin to work well on a reach. Doesn't say how the mast is stayed-if it is. If the mainsail rollerfurls around the mast, then sail shape will suffer in bigger winds. Don't know why you would want a boom to kill your kids in a bad gybe. Basically, I don't want one. Just about every home built boat on this forum is a better design.

**Small Tri Guy**

May 14, 2021

Ouch!

**Thom Davis**

May 15, 2021

Yah, sorry for being so negative, but the video showing it sailing is in a breath of breeze so you can believe the hulls are easily driven—that's a positive. But, trimarans are toys and this toy doesn't look to be much fun the way it is now. Change the rig (taller rotating aluminum or carbon section) and you have potential for a decent boat. Add shrouds and a reef point in the mainsail. Remove the boom, add a self tacking and furling jib...then it'd be fun.

**ian**

May 17, 2021

The still photos on their website (that can be opened in a new tab at high resolution) show that while there don't appear to be any shrouds, there *is* a dedicated central backstay that explains the extremely elongated masthead...something many multihulls with large roached and/or fully battened mains don't have at all.

Part of that stems from the fact that downwind sailing is the least optimal point of sail for most multihulls, where even moderately fast ones can often "tack" downwind and make as good or better time than in a straight line.

If anything that makes me question the whole idea of a spinnaker- plenty of boats fly them using running backstays, and 80 sq ft is tiny.

The photo of the boat on the trailer also shows that the headsail *is* equipped with roller furling.

As for the rig height and other considerations, IMHO there are valid reasons for a low aspect ratio rig on a multihull, that too many designers and builders ignore in favor of a taller = better approach derived from monohull practice, that can create a host of handling and structural problems.

One of those is the need for early reefing, or any reefing at all in many typical sailing scenarios. Another is an increased need for more elaborate standing rigging.

Looking at the full scale pic of the boat under sail the main appears to have a batten that is oriented and acts like the sprit on a spritsail rig and supports the peak...those can't be reefed using the same methods as on a typical fore/aft mainsail, but with a sleeved luff as this one appears to have ("Features include a roller furling mainsail") one could take in some of that area.

Part of that sail shape is the ability to carry sail area lower to begin with, in effect the sail is already on what would be a reefed position on a taller rig. That may not make for as fast and exciting a pure sailing experience, but it seems pretty clear both from the design and the description that this isn't intended to be that kind of boat.

(FWIW crab claw rigs are similarly dinged for difficulty in reefing, but by all accounts they make reefing a non-issue when operated correctly.)

As for "why you would want a boom to kill your kids in a bad gybe", besides the obvious answer that not everyone has or sails with kids (or has poor reaction time or gybing skills), the nature of multihull sailing that makes going downwind less than optimal also makes the ability to *really* flatten the main more important than it is on boats that don't make their own wind and don't end up trimmed like they are going to weather when they are technically on a reach.

To each his own but calling for a taller rig and better standing rigging to carry a chute longer and a better reefed mainsail shape to improve performance (when reefed) and bemoaning a low fun factor seems at odds with a boom-less main and the level of safety consciousness behind it. Bowsprits can create safety issues as well, both under sail and when in traffic and docking...you learn to be aware of and deal with them in exchange for the benefits.

It's not necessarily the rig I'd choose either, but I get it, it makes sense for a cruiser/expedition boat and I'd rather have that rig than a lot of the "performance" rigs that just ape what monohull race boats use with little to no consideration for how different the two types of boats are.

**David**

May 17, 2021

Looks to me like a cross between a Windrider and a Hobie Tandem Island. I've had had a lot of fun in both of those, and I would be a prospective customer for this kit. My wife can set up and launch her Hobie TI on her own. It was easy for her to learn to sail it. The roller furling assures that she won't get overpowered, and the pedal/paddle options assure a return home if the wind dies. I expect the B & B boat to have similar positives with better performance than the Hobie.

I've also had a lot of fun on a Weta. If there's not at least 10 knots of wind, a Weta is no fun, and it doesn't paddle or pedal. Set up time - for me, at least - is at least 30 minutes. While I would generally say that the Weta is a better boat than the Windrider or the TI, the Windrider and TI are better fits for me than the Weta.

If you only own or sail one boat, you need to figure out what boat best meets your needs. The things I consider are cost, maintenance, storage, transportability, safety, performance, number of crew required, ability to carry a load, and suitability for the intended conditions – wind, waves, temperature, etc. I own more than one boat because I haven't been able to find one boat that would do everything I want.

**Thom Davis**

May 19, 2021

David is correct, you do need to know what you want out of a boat before you buy it. You forgot a couple things in your selection criteria, though. Cost and setup time to name two. Reasons why I don't think this boat would be fun for me include 1) without a jib, it will tack about as poorly as your TI where you pretty much have to paddle/pedal through the tack—sure, some folks are OK with that, I'm not. and 2) a roller furling main that furls around the mast will have awful shape when partially furled—the camber will be in the wrong spot so you will not be able to go to weather efficiently—sure, some folks will be OK with that, but I sail routinely in winds that require less sail and often against a big current, imagine not being able to get back to where you launched from and you get the idea of why this boat would be unsuitable for my intended conditions. And I do understand that if you have to, you could paddle/peddle back; not the sort of thing I want to do in a sailboat. I suspect this boat will find a market niche, but not for someone who actually enjoys sailing in all conditions.

# Eagle Motor-Powered Trimaran Sea Trials Report

May 20, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: eagle 4.6 power trimaran, eagle power trimaran, eagle trimaran

## Comments

**ian**

May 23, 2021

I really appreciated seeing the build pics that show the underside of the main hull (and the description); I had always assumed from the sides and transom shape and speedy looks that it was a typical shallow vee power skiff design that was just more elongated than usual for its beam like a panga, and had no idea that there was that kind of displacement hull shape protruding below the upper hard chined section with the square-ish transom.

FWIW the panga was originally a displacement workboat that was reconfigured to allow it to plane while maintaining the positive seakeeping aspects and high efficiency of that long/narrow aspect ratio hull form, that many wider planing hulls don't have when operated in displacement mode. One of their drawbacks is that they don't scale down well, 20-26 feet or so seems like the sweet spot and anything smaller loses stability quickly as a monohull at the panga's 4-5:1 length to width ratio, not to mention planing area.

I've often thought that a trimaran configuration would allow that kind of form to work as a planing hull in smaller sizes and/or could help increase efficiency by allowing even higher aspect ratio main hulls, and had thought that this design could be that boat with enough power applied- but the pictures and sea trial account make it clear that that isn't the case at all.

For anyone who isn't familiar with the panga or might want to develop a planing tri of this type, here's a nice write up on the history of the modern Mexican panga that coincidentally shows Mac and Mary Shroyer aboard the Piver 24 they built and sailed to Mexico in the early 1960's along with some neat vintage build photos of that boat and the early fiberglass pangas-

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKewiatd7bt-DwAhVLHc0KHUirCFQqFjAAegQIBBAD&url=http%3A%2F%2Fwww.clubcrueros.net%2Fimages%2FHistoryEarlyYears%2FMacShroyer.pdf&usg=AOvVaw2\\_ECK-geXQAIY7jyL8E87](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKewiatd7bt-DwAhVLHc0KHUirCFQqFjAAegQIBBAD&url=http%3A%2F%2Fwww.clubcrueros.net%2Fimages%2FHistoryEarlyYears%2FMacShroyer.pdf&usg=AOvVaw2_ECK-geXQAIY7jyL8E87)

<http://www.clubcrueros.net/images/HistoryEarlyYears/2FMacShroyer.pdf>

**Parker**

June 2, 2021

I like the design of the boat. You are very creative when adding crossbeams to the boat, a great way to balance the boat. I am also amazed by the speed that this boat can achieve. Congrats, you have a great boat.

# Solar-Pedal-Paddle Trimaran

May 26, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: solar pedal paddle trimaran

## Comments

**Dutchy**

May 28, 2021

What about a sail? Wind is free too.

**Small Tri Guy**

May 28, 2021

Not every boat can be a sailboat Dutchy ;-)

**Dutchy**

May 28, 2021

I know, but I can see this guy is very handy. He not only has ideas, but also has the ability to get to results. That is why I want to trigger him.

Also, looking at the future, it will be possible to have sails that also will generate electricity. Nowadays already there are rollable solar panels. What if we can make sails from them ?!

Here you find the link of what I am talking about.

<https://www.youtube.com/watch?v=d1gfc52wmg>

**Small Tri Guy**

May 28, 2021

Good stuff Dutchy!



# Hop Trimaran in France

May 30, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Hop Trimaran

## Comments

**ian**

June 3, 2021

The overall look/styling is gorgeous, so much so that you have to wonder if it might have been prioritized over function to some degree...that's not a knock on the boat or designer, it just has the look of something designed by someone with a very keen and idealistic eye towards style...sure enough, Pascal Mourgue is both an industrial designer and fine art sculptor whose designs blur the lines between the two and the boat has been recognized for its beauty-

"Working as an industrial designer for the last 25 years, he has built his career outside the media spotlight. His products, ever more numerous and ever more international in their reach, reflect a constant desire for modernity and simplicity. He accords as much importance to functionality and aesthetics as to the profitability of his products.

He also works as a sculptor and has put on a number of exhibitions of his pieces worldwide (exhibitions entitled "La Mémoire de l'Eau" (the memory of water) and "Brûlures de Terre" (scorched earth))."

1983 : First prize in the Bloomingdale/VIA competition for the ARC chaise longue.

HOP trimaran selected as one of the 25 "Objects of the 1980s". Exhibited at the Pompidou Centre, the Musée de la Marine and the Salon des Arts Décoratifs.

1986 : "Janus de l'Industrie" award from IFDI for the Hop trimaran.

<https://www.fermob.com/en/Discover-Fermob/Designers/Pascal-Mourgue>

Like all good industrial designers he's also well aware of the market sentiment and biases expressed regarding this type of sport sailing and approaches the design as a solution to a problem-

Lightweight, knockdown, sport trimaran

"The invention is more particularly directed to such trimarans which are relatively light in weight and suitable for pleasure boating in coastal waters while requiring unquestionable athletic skills and physical efforts on the part of the user.

Experience has shown that the overall bulkiness of this type of sailboat and in general all flying dutchman type sailboats has been a limitation to their development. For example, numerous potential users such as those who have acquired experience through wind-surfing have given up on owning their own sailboat because of the constraints of transport and storage in the off-season, or dry docking, necessary for such a sailboat.

A general object of the present invention is to provide a trimaran which due to its ease of transport and storage is particularly satisfactory for such a category of potential users."

<https://patents.google.com/patent/US4664049A/en>

some detailed pics of a restoration here-

<http://jolie.brise.mini.monsite-orange.fr/page5/index.html>

The hull shapes and structure have the look of a miniaturized 70's-80's era offshore maxi tri, especially Eric Tabarly's Pen Duick IV (see #17)-

<https://www.yachtingworld.com/extraordinary-boats/hall-of-fame-50-boats-changed-sailing-99989/3>

-even if it's not cutting edge by today's standards it's still sexy.

**Small Tri Guy**

June 3, 2021

Hey, GREAT info Ian!

Many thanks for taking time to share it.

# Simple Trimaran in France

June 3, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: self-built small trimaran in france, small trimaran france

## Comments

**Thom Davis**

June 5, 2021

That looks like a fun little boat. But, what's a dufour board?

**Small Tri Guy**

June 5, 2021

Good question. I had just assumed a lee type of board. Perhaps not?

**Small Tri Guy**

June 5, 2021

Good question. I had just assumed a lee-type. Perhaps not?

# French Polynesia Rediscovered Trimarans

June 8, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: french polynesia trimaran, vaa iti trimaran

## Comments

**ian**

June 9, 2021

Trimarans certainly do offer a benefit in initial stability that makes sense for a resort rental, but the government inspector's reaction to a single outrigger reminds me of the successful push to ban the sale of three wheeled ATV's in the USA, where the term "inherently unstable" was repeated incessantly as if banning any vehicle that was "inherently unstable" needed no more explanation.

Of course two wheeled motorcycles that literally can't stand upright on their own weren't held to that standard, regardless of the fact that just like a three wheeler you need to understand the principles that govern keeping them upright and pointed in the direction you want to go to operate them safely, and people can't just jump on one and be "safe" without some basic training and common sense.

All of which is to say: a search for "Tuamotu kayak rental" turns up a number of kayak and canoes for rent that don't even have a single outrigger, along with even more "unstable" watercraft like stand up paddleboards and surfboards for rent all over French Polynesia.

# Aircraft Drop Tank Trimarans

June 10, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: drop tank trimarans

## Comments

**Michael**

June 11, 2021

Your contributor Ian has the location of Palau and the whole of Micronesia backward. They're not due west of the Philippines. They are due east. Look at a map, eh?

**Small Tri Guy**

June 11, 2021

Yes, of course, that is my fault as editor for reading too quickly. We'll overlook this detail, given Ian's details and analysis of the boats is always very much appreciated.

# Scarab Trimaran in Charlotte NC Area

June 14, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Scarab trimaran

## Comments

**Christofer Olsson Kedborn**

June 16, 2021

Really sweet boat. If I lived close in US I would have love to see it live!

**Mandrin**

July 26, 2021

You still have this boat ?if so pleas call me @ 347-901-22-97 thank you

# Triak for Sale in Zephyrhills FL

July 1, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: triak, Triak kayak, Triak sailing kayak

## Comments

**Thom Davis**

July 13, 2021

That's a triak version 1 of which there were very few made. It included very small floats and an attached foil which was supposed to balance the sail forces. Don't think it did so very successfully since it was redesigned to include a rotating mast, spinnaker and bigger floats (which were still too small for anything above 10 kt breeze). I sailed the heck out of my triak for 5 years and it was a lot of fun, but ultimately too restrictive for me to be sitting in one spot for hours at a time.

# Yakyak Double Outrigger Sit On Top Sailing Kayak

July 11, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger kayak, yakyak kayak, yakyak sailing kayak

No Comments

# Attempt to Cross the Atlantic on a Kite-Powered Small Trimaran

July 18, 2021

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: kite powered trimaran, kite trimaran

No Comments



# Solway Yacht Club hosts Challenger Trimarans Race

July 28, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Challenger trimaran, challenger trimaran class

No Comments

# Modular Multi-Hull Sailboat

July 28, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: modular multi hull sailboat

No Comments

# Small Tri Attempts to Go How Fast?

August 17, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: small tri 80 knots

No Comments

# Building a Cedar Strip Trimaran

August 17, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: cedar strip trimaran

No Comments

# Windrider 10 For Sale in NH

August 17, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: windrider 10 trimaran

No Comments

# Astus 20.5 Trimaran Review

August 23, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: astus 20.5 trimaran

No Comments

# Triple B Trimaran Fix

September 2, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: cool finn trimaran, Triple B trimaran

No Comments

## Recent Squirt Trimaran Updates

September 2, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: squirt snark trimaran, squirt trimaran

### Comments

**EricDahlkamp**

September 4, 2021

Should have mentioned my 6 knot top speed was in a 14 knot breeze with two aboard and main in second reef - 55 sf. No headsails either. Hope to double that sailing solo with full main.



# Building & Sailing Outrigger 26 Trimarans

September 9, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Dick Newick Outrigger 26, Outrigger 26 trimaran

## Comments

**Michel**

October 5, 2021

Hello,

there are two threads about the Somersault 26 in The sailing anarchy forums. Owners of the S26 tuned in and there is a list with the current positions and owners.

Technical thread here, lots of links to youtube videos

<https://forums.sailinganarchy.com/index.php?topic/215012-newick-outrigger-26somersault-26/>

Technical thread here, lots of links to youtube videos

<https://forums.sailinganarchy.com/index.php?topic/208050-newick-summer-salt-26-akas-sockets/>

**Michel Fedisch**

October 5, 2021

Hello Bill,

can you write something about the re-righting system of the Somersault? Perhaps with some drawings? This is very interesting to me, because I am working on a new design that will be a lookalike of the Somersault / Outrigger 26.

I am following the same path as Dick Newick with a "narrow and low" main hull with a big cabin on top. This has massive advantages for the home builder. Construction will be epoxy plywood with 3 planks / single chined.

**Bill Murphy**

November 2, 2021

Hi Michel, I apologize for taking so long to reply to you.

The Outrigger 26's high cabin top originally had about 10 inches of water proof foam in it, running from side to side, and from the cabin entrance, forward about three feet.

If capsized, we capsized the our boat with the crane where the Chicago river enters Lake Michigan, the boat just floats there upside down, the foam in the cabin top supporting it.

On the forward deck, close to the bow, is an opening with a screw top 2-3 inches in diameter.

To right the boat, reaching under water, the screw top is opened, and rotating "around" the mass of foam, the bow of the boat fills with water and rotates to the point where the mast surfaces, or is more or less horizontal to the water. Then, the screw cap is replaced, the water pumped out, and the boat completes it's righting. Thus the name Somersault 26.

Sorry, have no diagrams for this. I tried it with scale 2" to 1' model. Also spent considerable time in the, less than pleasant, Chicago river waters. Wish you the best in your project.

Were I building another 26 footer, I'd try Derick Kelsall's swift-sure method. Also have a Newick Val builder help me to make it with a Wing aka. Regards, Bill Murphy

**Tom Cox**

September 21, 2022

My friend Bill Yates owns an Outrigger 26 with a rotating aluminum mast. Not a wing section. He bought it a few years ago, and keeps it in Gloucester, MA.

**Dave Clayman**

October 12, 2022

We own boat # 8 formerly Bluescape (I believe) now Ladybug. She was purchased from a gentleman in Paris Maine. He purchased it through Don Wigston from a fellow in FL. I have spent the last years repairing her and sailing every summer on Sacandaga Lake (reservoir) in upstate NY. Among the repair projects were: new trailer with slide out & jack up ama supports, repairs to the akas, repair to the bulkheads inside the amas where the akas fit, repairs to the bulkheads in the vaka where the akas fit, repair to the mast base, repairs to the cockpit & aft bulkhead, added a bow sprit, and made jacks to help jack the amas off the akas.

Did the original daggerboard taper to an elliptical tip? I made ours with a simple domed off square end. How much does this increase drag at speed? We easily sail to 14-15 knots, but have on occasion, with difficulty hit 18.5 k nots.

**anton berteaux**

November 30, 2022

I have the prototype, which came up for free on Sailing Anarchy. I snagged it in Colorado in about 2016, but family stuff came up and I ignored it in my garage until last year when I started in on the refit. I have gotten distracted with a million things, but am making progress and am excited to finish it and get out on the water. I just got contact info for a previous owner of this boat, I have not yet heard back but hope to find out more of the history of it.

I would also be excited to hear about how the prototype was built, and where and by whom if Bill Murphy would be willing.

Here are a few videos from friends who have helped me work on the boat.

<https://www.youtube.com/watch?v=6tZorzhNiE4>

<https://www.youtube.com/watch?v=Uf1IrFhVHhA>

<https://www.youtube.com/watch?v=FrIlg9nMhSXs>

**anton berteaux**

November 30, 2022

The videos are of course from before. I have some pics up on FB from in-process, and there is a Google group that has some pics up too.

<https://groups.io/g/Somersault26/editsub?id=10308650>

**anton berteaux**

December 2, 2022

"To right the boat, reaching under water, the screw top is opened, and rotating "around" the mass of foam, the bow of the boat fills with water and rotates to the point where the mast surfaces, or is more or less horizontal to the water. Then, the screw cap is replaced, the water pumped out, and the boat completes it's righting. Thus the name Somersault 26."

Bill:

Aha! There is a pipe thread fitting in the bow of the prototype that had me wondering. Perhaps this is what that is for? Did you do the capsize testing on the prototype or one of the production boats?

Anton

# More on the Small, Super Simple Trimaran

September 14, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: small diy trimaran, small trimaran

## Comments

**EricDahlkamp**

September 20, 2021

You got me interested now in going small! Looks fun! Nice.

# Squirt Gets a Swallow Tail

September 23, 2021

Categories: Small Tri Info - All, Small Trimaran Videos

Tags: squirt trimaran

## Comments

### Hans Schipper

September 25, 2021

Thanks for showing Eric.

Is there a noticeable difference in speed?

I had the same idea to apply to my triple B.

The sawed-off hull that rises too little in the back does not let go of the water easily. Only when the boat has enough speed to lift does it draw a neat track which you can see from 1.36 on the attached video <https://www.youtube.com/watch?v=iLTuBtN9RxM>

I am still not sure if it makes enough difference in relation to the work.

### Eric Dahlkamp

September 29, 2021

I wouldn't think your narrow stern would benefit much from adding a scoop. Mine was a big blunt flat thing with and bottom upturn – all wrong. I do seem to get a couple knots out of her more. But so hard to get a day sailing with the drought and fickle wind I can't tell. I'm not sucking wake like a brake though. Kicks in about 5 knots boat speed. Really shows her stuff above that. But she is not a fast boat having a 76sf main and being only 13', now 14' with scoop. I think leaving the engine at home would be your fix ?. Cheers.

### Larry

October 1, 2021

Eric: If not already covered what are you using for paint and application method? Looks very nice. Excellent workmanship.

### Eric Dahlkamp

October 1, 2021

Larry, thanks, pictures are VERY forgiving. But, I use a foam roller then dry tip brush. Multiple coats of Marine Rustoleum with light sanding between. That said, the scoop and bottom fairing was just one coat by brush. Wanted to sail next day.

I use regular Rustoleum oil base metal primer or paint topcoat directly over sanded epoxied wood. They dry fast, set hard over time and what's more come in quarts at a reasonable price. Ebay or Amazon. Sometimes free shipping. Use Klean Strip Japan Drier to have it dry even faster.

# Squirt Trimaran Rudder Modification

September 28, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: squirt snark trimaran, squirt trimaran

## Comments

**Eric Dahlkamp**

October 1, 2021

Update - new rudder foil complete.

[https://m.facebook.com/story.php?story\\_fbid=1193640737768693&id=100013683337330&sfnsn=mo](https://m.facebook.com/story.php?story_fbid=1193640737768693&id=100013683337330&sfnsn=mo)

# Farrier Eagle Tramp Trimaran (for Sale in Seattle)

September 28, 2021

Categories: Small Tri Info - All

Tags: Farrier Eagle Tramp Trimaran

No Comments

# Outback Mike's Double Outrigger Canoe Adventure

September 30, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: outback mike, outrigger canoe

No Comments

# Marlin Trimarans in Europe

October 5, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: marlin, marlin trimarans

## Comments

**Christofer Olsson**

October 13, 2021

I met Jan Andersen, this summer in Sweden, and I did an short intervju with him. You can see it at my Youtube channel

<https://youtu.be/YLH-JORu4zI>

Also... something more is planned ;)



# Building Plans for Single-Seat Trimaran

October 7, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: 12' foot Cartop Trimaran, Kurt Hughes 12 foot trimaran

No Comments

# Fun with 2 Small Trimarans

October 7, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Triple B trimaran, watermouse trimaran

No Comments

## Identify this Trimaran in the UK?

October 15, 2021

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: UK trimaran

### Comments

**bones mohler**

October 19, 2021

Looks like a Horstman design(?). There were two designers from that era that ended up with similar models. I think it's a Horstman.

Remember, "nothing's more expensive than a free boat..." :)

**'B J'.**

November 12, 2021

If it's timber & ply, with lots of rot, strip & forget it (but you knew that already). If not & you love 'mucking about with boats' go for it, but lots of work just to clean it up, (but you knew that as well). Have you got somewhere affordable to work on it? It will take far longer than you think. Second hand sails are normally very cheap, if you want to keep the costs down. Is it worth a marriage??? if she's not on side. Imagine her sunbathing on deck, or at least tell her that. All the very best, 'B J'. Multihulls, (fast) Sailing on the level.

# Philippine Double Outriggers at Work

October 15, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Philippine double outrigger canoes, Philippine Double Outriggers

## Comments

**Hans Schipper**

October 18, 2021

Great to see how they build such a beautiful boat with simple means. I wonder if the expanded bottom provides lift. Installing a skeg would protect the propeller and rudder better.

# “Mix & Match” Double Outrigger Canoe

October 22, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Gary Dierking, outrigger sailing canoe

No Comments

# Voltair Trimaran – Another Summer

October 25, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: voltair trimaran

No Comments

## Libertist 703 Sea Trials (Video)

October 28, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Libertist 703 trimaran

### Comments

**Erik Klepsvik**

November 1, 2021

I am planning to order this boat for use at the Norwegian coast near Stavanger.

**Thom Davis**

November 20, 2021

Have fun with it Erik. The video doesn't make me say, "OOH, I want one" because it was such a light breeze. Why it uses cars instead of boltrope on such a short hoist is sorta weird. I suspect it'll be fun for you but it looks heavy in the water—but that might be because it is red.

# Squirt Trimaran Dialed In

October 28, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: squirt snark trimaran, squirt trimaran

## Comments

### **Dutchy**

December 2, 2021

I was always told to have a narrow vaka. What is the width of the vaka at waterlevel?

Anyway I love the ama's !! Well done.

### **Eric Dahlkamp**

December 14, 2021

Thanks for commenting.

Yes, narrow Vaka, and hulls in general, are best for multihulls.

I built this for other than speed reasons. At 13' a narrow Vaka would not have the displacement for me, my gear, supplies and water on a week-long expedition sail.

Wanted enough freeboard for dryness, width for displacement and open wide floor for sleeping. This was the compromise. Vaka is 38" at gunnel at widest point. At waterline she's 30".

I'm installing a sliding hiking seat between the amas right now. Hiking out a little more will help tremendously to keep the amas from burying too much. And she'll be faster. She planes easily when sailed flat.

She carries oars mounted on the amas and a small 2 stroke motor.

Oars - [https://youtu.be/9IeSr\\_5GjM8](https://youtu.be/9IeSr_5GjM8)



# Angus Rowboat & Sailboat Kit

November 9, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: angus rowcruiser, angus sailboat, rowcruiser

No Comments

# A Curious Boat For Questionable Adventures

November 23, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: clc mill creek trimaran

No Comments

# Windrider 16 Cruiser

November 25, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Windrider 16 trimaran

## Comments

**Michael**

April 28, 2022

That's pretty neat. Building memories.

# One Approach to Raising a Larger Mast

December 8, 2021

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: mast raising system, trimaran mast raising

## Comments

**Scott Iverson**

December 10, 2021

Mast raising options always are welcome!! Question: how do you get the hoisting loop above the midpoint when it is time to lower the mast? Put it up with a halyard?

Not sure that qualifies as a gin pole, but I don't know what else to call it. No matter what to call it if it works.

# Sprit Sail on a Small Trimaran?

December 14, 2021

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: sprit rig, sprit sail

## Comments

**ian**

December 15, 2021

Hi Joe-

I've never done it myself but do know of traditional Filipino double outriggers that use them...

see the mostly black sail in the photo accompanying this article-

<https://en.wikipedia.org/wiki/Bigiw>

the second to last pic here ("Pl. XI. Banog pindang sail.") also shows something very similar although it's hard to tell which spar functions as the mast and which is the sprit-

<http://scholarspace.manoa.hawaii.edu/bitstream/handle/10125/16980/AP-v29n1-51-88.pdf?sequence=1>

Generally speaking it seems like a great option for a small kayak since it keeps the sail area and power down low where it's less likely to contribute to capsizing...and can be kept very light at that size.

the main drawback I can see for that kind of sail shape on a tri is that anything with a separate spar aloft like a spritsail or lug or gaff headed main or lateen is usually harder to sheet in really flat- and that is at odds with a boat fast enough to begin making its own wind, that often needs to sheet in really flat even when on a beam reach and often has issues going to weather because of that apparent wind limiting how high it can point.

Conversely, square-ish sails and lateens tend to excel and generate maximum power in off the wind points of sail that are often the least optimal for multihulls both because of the apparent wind thing and because of a tendency to "trip" when (over) powered from behind the beam that way, especially with following seas.

Those probably aren't a huge risk but it's worth considering when selecting the size of the sail, and of the sails/rigs mentioned the spritsail is probably the most easily adaptable to a higher peak and more triangular shape that can trim more like a marconi main while maintaining the advantages of a spritsail, and can minimize the good/bad tack sail shape issue inherent to a spritsail (and lateens).

FWIW the original Star class keelboats had a gaff rig with a peak so high and such an extreme vertical gaff angle that the gaff sail could be used on the marconi mast-

"As the Star Class continued to grow and develop during the late 1910's and early 1920's it became clear that the rig should be modernized. The first step was to change to rig from a gaff rig to a Marconi rig. This changeover occurred gradually during the early 1920's.

...The 1922 Log shows the Star sail plan with both the gaff rig and the Marconi rig. The caption to the plan states that the same sail can be used on both rigs."

<https://starclass.org/history/star-boat-design-and-development1>

<https://starclass.org/assets/images/uploads/history/Image42.jpg>

**Small Tri Guy**

December 15, 2021

Great info Ian ... thank you.

# Canoe Sailing with Simple Outrigger Floats

December 15, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: canoe sailing, outrigger floats

## Comments

**Dutchy**

December 16, 2021

elegant simplicity.

Simple boat.

Simple rig.

Totally agree with this..... and yet, looks like a lot of fun !

**Dutchy**

December 16, 2021

Hello, I just found out that this guy is the organizer of the "RAID EXTREME".

This is a sailing event held in "lauwersoog" the netherlands, every year first week of september.

It's al about small sailing vessels and/or human powered vessels.

Highly recommended .... vids about this can be found at the earlier mentioned site: <https://www.youtube.com/user/winnips/videos>

# Tony Grainger Designed Rocket 25 Trimaran

December 22, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Tony Grainger

No Comments

# Kayaking Joe's Double Outrigger Sailing Kayak

December 22, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Kayak Joe, KayakJoe

No Comments



# Nicky Cruz 25 Yearly Cleaning

December 26, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: nicky cruz 25, Nicky Cruz 25 trimaran, Nicky Cruz trimaran

No Comments

## Piver 25 Trimaran Launch (Awhile Back)

December 26, 2021

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: piver 15 trimaran, Piver 25

### Comments

**Richard Stanton**

June 7, 2022

I'm thinking of getting a 25ft tri. Not much room in the cabin. Two bunks and a galley area, but the price will be right. Is it hard to haul out?

## 7.2 Meter Trimaran Crosses Atlantic Under Kite Power

December 27, 2021

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: 7.2 meter trimaran

No Comments

# Little Triak Down Under

January 1, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: little-triak-trimaran-kayak

No Comments

# TriCat Trimarans in France

January 5, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: tricat trimarans

## Comments

**Thom Davis**

January 20, 2022

There are a lot of nice features on this little boat. I was impressed with the deck running rigging and inside was much roomier than I would have expected. Looks like an easy folding system. Curious about the shroud tensioners on the rotating mast...just for ease of folding or do you really adjust while sailing?

**Taylor Damonte**

August 9, 2022

From the pictures the 6.9 does not seem to have a rotating mast, unless I am just not seeing it.

## Farrier F25 Trimaran Mast for Sale (Texas)

January 10, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Farrier F25 trimaran

### Comments

**Jason O Freeborn**

January 12, 2022

Hi,

I've posted this on the Farrier Trimaran Forum. Hopefully it will be re-used to good effect.

**George**

October 17, 2022

Do you have sails?

**Daniel Sullivan**

November 3, 2022

Idk if u still have everything but I'm In the market.

843 - 780 - 2502 (Dan)

# Waterlust Canoe with Double Outriggers

January 21, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: waterlust canoe, waterlust outriggers

No Comments

# Tandem Kayak with Custom Inflatable Amas

January 24, 2022

Categories: Production/Commercial Small Trimarans, Self-built Small Trimarans, Small Tri Info - All

Tags: falcon sails, tandem sailing kayak

## Comments

### **Small Tri Guy**

January 26, 2022

The owner of Fun Ocean Outdoors LTD sent both Nick and me the following message after reading this post (The Facebook page for this business, by the way, can be found here - <https://www.facebook.com/Fun-Ocean-Outdoors-LTD-128279440531665/>):

"Congratulations Dear Nick-"Sailornikola" for your endeavors with this "magnificent" and 'outstanding' result, being honored and privileged to be part of this attempt at any possible level...!!!

I am sure that you are enjoying this "Tool" a lot...and I am glad that I have contributed in some way to fulfill and make true your childhood "dream"...!!!

Happy Sailing and Paddling though...!!!

Have "Fun" and enjoy it, as it was my main idea and goal, when I first started the "Fun Ocean" 36 years ago...!!!"

Best Regards

Vassilis Boutsoris

Fun Ocean Outdoors Ltd



# Abandoned Piver Trimaran on Corfu

January 26, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: Piver Nugget Trimaran, Piver trimaran

## Comments

**Name \* Greg**

March 26, 2022

Back in 2000 I found a Piver Nugget in San Leandro Marina California that I bought for \$50. It should have been cut up and put in a dumpster – took me 18 months and she sailed again.

## B&B Mini Trimaran Sailing (Video)

February 3, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: B and B mini trimaran

### Comments

**Dutchy**

February 17, 2022

Looks nice. Great details. However I always see the sit-position, being in the middle of the vaka as a lost change. The possibility of sitting more to the luff of the boat would improve this concept a lot.

# Thoughts on Designing & Building a Light, Car-top-able Outrigger Sailing Canoe

February 7, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: outrigger sailing canoe, wade tarzia

No Comments

# Building An OutRigger Canoe on the Cheap

February 7, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: outrigger sailing canoe

No Comments

# Tamanu Double Outrigger Canoe Launch

February 17, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Tamanu

No Comments

# Drifter 16 Trimaran: From a Free Plan to Under Sail

February 23, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Drifter 16 trimaran, Drifter 16 trimaran plans

## Comments

**Dutchy**

February 24, 2022

Well done, looks very nice. Hope she sails good too. (any video's ?)

# Hobie "Nauti Dog" Mods

February 26, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: hobie island sailing kayak, Hobie Mirage Adventure Island

No Comments

# DIY Kayak to Sailing Tri Conversion

March 10, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: kayak sailing, outrigger kayak

## Comments

**Dutchy**

March 11, 2022

Interesting concept: the outriggers (and ama's) that are flexible attached to the kayak, so the kayak does not capsize. It is almost like having two boats flexible attached !

Great non-permanent adaptations. Well done !

**Thom**

April 6, 2022

Great to see someone finish a project with such panache and obvious love of sailing and water. Certainly not for everyone, but as long as you aren't sailing in big wind, it should be fun.



# Hop Trimaran Under Sail

March 18, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Hop Trimaran, trimaran hop

## Comments

### **Dutchy**

March 19, 2022

Thank you, Ian, for finding this. You are right: old materials used and looks (without the sailor) fairly heavy. Poor sailing on close reach. In my opinion due to too much rocker in the hullshape. But surprising! concept though, looks a bit like the modern Weta!

### **ian**

March 23, 2022

Hi Dutchy,

I'm glad others appreciate this kind of thing too, and Joe deserves a lot of thanks and credit for making it possible and creating/maintaining this incredible resource and wide ranging archive of small tri info.

This boat is very much of its time as far as hull shapes go and maybe slightly ahead when it comes to the aluminum tube parts...Hobie cats had used structural extrusions that way but tris like that were not so common...early 80's was the era where Dick Newick -style swoopy molded crossarms were the cutting edge in tri design, and neat as those were I think they were in many cases still rooted in earlier solid bridge decks, just made with all but the necessary structural parts carved away.

This one gets rid of that entirely and as you say is almost Weta-like in that respect but is still staying to that more traditional sailboat hull shape of earlier eras with that traditional sheer line and bow profile that "good" boats were "supposed" to have, and lots of rocker that I think was in many cases an attempt to overcome tacking problems that many people still considered inherent flaws in all multihulls and was the Achilles heel of Hobie cats with no centerboards. I think along with more modern hull designs the way people sail them has changed to some degree and tris are being judged less by monohull standards than they were decades ago, so that rocker has all but disappeared.

It would be very interesting to see a design like this made lighter with the various advanced materials that are available now...even with the original hulls if you replaced the tubes and spars with CF, used synthetic rigging and ultra-modern sail materials, etc. to shave weight off, I imagine the performance would be improved greatly and that those old school hull shapes would come away as not as much of a problem as they might seem.

### **Hans Schipper**

March 30, 2022

I see more options for better sailing with this boat.

a traveler for the mainsheet and a well-tensioned luff of the jib would improve the sailing characteristics.

When it can reach a speed above 6 knots you could get so much lift with wing profiles on side hulls that it becomes much less water ballet and increase the speed up to ten knots.

# Trailing and Boarding Watermouse

March 26, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: watermouse trimaran

No Comments

# Sailor Asks for Identity of This Trimaran in NZ

April 25, 2022

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: new zealand trimaran

## Comments

**Tim Bell**

May 8, 2022

It is a simpson wild design about 28ft long. Originally called adrenalin high, I think the new owner changed it. It sat on the hard at Lyttelton for years and was sold quite cheaply to a local who moored where you see it now. Looks like it has again been abandoned.

**malcolm**

June 3, 2022

I heard it was bought not by a local but by a guy who lives in Coromandel. Initially (about 9 years ago) he seemed to be in Lyttelton sailing it quite a bit then seemed to stop. I paddled around it several weeks ago and its tilt seemed to be due to an inspection port cover on one of the amas being off and it filling with rainwater. Paddled that way a week or 2 ago and the boat wasn't there

## 2 Rigs on 1 Sailing Canoe

April 25, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

No Comments

# Folding Trimaran Shroud

May 6, 2022

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: folding trimaran shroud, shroud for folding trimaran

## Comments

**Tom Williams**

May 7, 2022

Thom always comes up with the most innovative solutions

**Thom**

May 7, 2022

Thanks...I'm just lazy and impatient...so I find ways to make things easy for me.

**ian**

May 9, 2022

I get how the tensioner mechanism operates (like a block and tackle) but don't understand how the tension is locked and held in place once that tension is developed- the written explanation speaks of "luggage tagging" and soft shackles but the video doesn't show the act of locking the tension in place and only shows a metal clevis pin already in place and being used to "take out the slack" which doesn't sound like the same thing as holding the shroud under tension.

Never heard the term "luggage tagging" in this context but if I had to guess I would guess it means passing a loop over something and back through itself the way you attach a luggage tag...?

If so, that's a knot (larks head) ...regardless I don't see anything in the video that shows that or any other fixing/locking action actually being performed.

Clarification would be appreciated.

**Thom Davis**

May 18, 2022

In the first shot on the parked trimaran. The soft shackle knot is pulled and you see the eye in the lashing that the soft shackle is luggage tagged through. That holds the tension (jams the cascade). The video only shows the system, not the actual activity of tensioning the shrouds and applying the luggage tag to the tightened cascade.

Luggage tagging is exactly how you describe, the soft shackle is just a big knot with a loop of line, that loop is passed through the eye of the lashing line and passed over the big knot and drawn tight--thereby jamming the cascade.

# DC3 Trimaran for Sale

May 12, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: DC3 trimaran

No Comments

# Scarab 18 Trimaran for Sale in NC

May 26, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: scarab 18 trimaran

## Comments

**Christofer Olsson Kedborn**

May 28, 2022

A really cool trimaran. That just want you to sail every day. If I lived in NC I would have bought it! ?

**Dale**

November 20, 2022

Is this still available and what is the asking price?

**Leo Conejo**

January 1, 2023

This is still for sale?

# Small Tri Video Compilation

June 1, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Christofer Olsson, small trimaran

## Comments

**Thom Davis**

June 27, 2022

Nicely done. I especially liked that you included slow safe sailing with littlies in PFD as well as heart pounding fast sailing shorts. The word joyride is exactly what sailing a trimaran is about.

**Eric Dahlkamp**

July 2, 2022

Wonderful Christofer. Enjoy watching your sailing videos. Enjoy your online friendship too. Safe sailing this season in far away Sweden.



# Very Odd Small Trimaran

June 6, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: flap trimaran

No Comments

# Nice Write Up & Pics of Solway Dory Sailing Canoes

June 7, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: sailing canoes, solway dory

No Comments

# 12' Tanzanian Ngalawa Style Outrigger Canoe

June 10, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Ngalawa, outrigger canoe

## Comments

### Dutchy

June 10, 2022

Hello Ian.

Nice to see you experimenting with this stuff. I like to do this myself. I did not see a sail on it. I assume this will come later. I would recommend a large old camber surfboard sail. This is cheap has a great default curve in the sail. And flipping the cambers over is no problem whatsoever.

Hope to see more testing video's...

### ian

June 12, 2022

Hi Dutchy,

I do intend to experiment with a sailing version of this idea eventually but for a number of reasons this particular boat probably won't be it in any serious way; the 12' canoe has very limited freeboard and is an older boat that is pretty heavy on its own so with all the extra gear needed it would be borderline unsafe with much heeling.

Without the amas it wasn't much fun at all with two people because of the constant need to maintain balance..all canoes are like that to some degree but this one is narrow and pretty round bottomed and had no margin for error. Even with the extra drag of the amas it's faster paddling now because before you couldn't lean into it and really pull without risking a capsize.

The other thing is that the area I intend to use it most is on the bayou in the picture where overhanging trees, very shallow depths with lots of things to snag on, lots of very low bridges and a fair amount of powerboat traffic (including commercial barges) make sailing impractical. Eventually I'd like to add a small electric trolling motor to this one and also have some ideas for a pedal operated sculling oar system that this would be a good candidate for, that also wont require registering it like adding a sail or motor would.

### Danny

July 5, 2022

Really cool concept Ian. I would be very interested in seeing your pedal system as it develops.

### Manfred Pech

July 14, 2022

Decades ago Eric J. Manners (GB) has developed and extensively tested a 20ft trimaran with hydrodynamic well working wings and an extended cockpit to prevent capsizing when these floats submarined. His creation seems to be the perfect modern ngalawa version.

### ian

July 15, 2022

Hello Manfred,

Thank you so much for this comment; I'm always interested in seeing other examples of this form being adapted in the modern age and had heard of Erick Manners from reading AYRS publications from the early days of modern trimaran development, but had never run across this particular boat which I think is the "Flying Wing" (?)

I was able to locate a 1961 article in the AYRS archives that describes that boat and his "Trifoil" ama design, which is remarkably similar to a halved surfboard as far as relative dimensions go and oriented almost exactly like the traditional ngalawa concept.

That article also has an interesting commentary about foil assisted trimarans and diverging opinions at the time about whether a low aspect water ski -like foil or a high aspect blade -like foil was the best option... (pp 88-91)

[https://www.ayrs.org/repository/AYRS074.all\\_A5.pdf](https://www.ayrs.org/repository/AYRS074.all_A5.pdf)

The ngalawa style outriggers and exploration of low aspect ratio planing amas in general was mostly abandoned as tris became more mainstream but it's fascinating to see how many people were aware of and working with this style of ama back then, with some very positive results.

This comment from Manners in particular was very satisfying to see in light of what my little experiment has shown so far, it's virtually identical to what I posted-

"The hydrofoil arrangement gives the FLYING WING an exceptionally smooth ride with no "wave shock" from the floats. Nor is there a quick motion when a float meets a wave which can be annoying in a trimaran". Indeed, Erick has actually made trimarans with spring loading in the floats to try to overcome this."

It's also interesting to note that in that era the low aspect ratio water ski/surfboard -style outriggers were treated as just another type of hydrofoil, which is probably why I had never seen that particular boat before when searching for examples of modernized ngalawas, but not hydrofoils as we think of them today.

In that publication is another article I'd seen before describing a "Melagasy outrigger configuration" using plywood surfboards ("JEHU" p 40) that reports very positive performance...and in 1955 had a configuration very much like l'Hydroptere, especially when they added tilting leeboards and realized that they acted like foils when canted in their stowed position-

“When fitting the lee boards to Jehu, the only logical way of having them retractable was to hinge them and retract them inwards. Hinged struts held them in position, either up or down. It was, of course, quickly seen that if they were angled in at the Baker angle of 40°, they would function as hydrofoil stabilisers. We soon tried them as such and, to our delight, we found that the surf boards could be completely lifted off the water by the angled-in lee board. This occurred at a relatively low speed; about 4 knots. At speeds greater than 5 knots no sitting out was necessary and the craft sailed close hauled very nearly with the crew placed just as they wished and the surf board raised off the water.”

it's also worth noting that in an earlier AYRS publication it is established that Victor Thetchet's pioneering designs used an adaptation of the low aspect ratio planing form idea, but performance suffered in large part due to the horizontal orientation of the ski-like portion of his amas-

“In Madagascar, the float is given the shape of a water ski but is thick enough to act as a float, too. As shown in Fig. 2, it is angled outwards so that, as it planes along, it gives a certain amount of lateral resistance which is useful because neither centre nor lee-board is used. This angle of dihedral also give a certain amount of lift on the lee side (quite distinct from the dynamic lift of the planing under-surface. It also reduces the wetted surface at very low speeds when the float can be trimmed to touch the surface by only a very small amount of the lowermost corner so that it does not drag a lot of water behind it .

Victor Tchetchet of Long Island uses a modification of the Madagascar float (Fig. .3). Because there is a centreboard, the float is placed on the water with no dihedral angle and the float under surface is horizontal.... This system has the fault that it drags water behind it when it is being pressed down by a weight of wind, close hauled. When running free, the float will plane well due to its speed, though the entrance could well be given a V to lessen its resistance.”

<https://www.ayrs.org/repository/AYRS007.pdf>

# Proa with Fully Decked Main Hull

July 1, 2022

Categories: Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: decked main hull

No Comments

# Trimaran 5m50 Sardine Run

July 2, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: 5m50 Sardine Run trimaran

## Comments

**Thom Davis**

July 5, 2022

Nice and simple. Surprised how little deflection in the crossbeams considering tube aluminum. I wonder how big the boat has to be before it pays to use carbon beams? Looks like the floats might be a little oversized especially since the mast looks kinda short.

**David**

July 7, 2022

This design uses water stays to minimize crossbeam deflection. The 19' Sardine Run uses carbon beams. I don't believe water stays are required on that design.

# Squirt Does the Texas 200

July 7, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: squirt trimaran, Texas 200 boat race

## Comments

**Randy Jensen**

July 7, 2022

thank you so much for your 2022 texas 200 report . I have subscribed and enjoyed some of your build posts , looking forward to exploring your whole site . very inspiring and rejuvenating . I just got beat up in 2022 r2ak . dropped out after only 150 mi. it was bad spots one after another , weakening me mentally till I had nothing left to fight with . your report is helping me to get my strength back . randy jensen

**Eric Dahlkamp**

July 10, 2022

Randy, you took on the Big Kahuna. I'm a small fry adventure sailor comparatively. No one can predict or sufficiently prep for all circumstances – as in "All is Lost". Well done planning and shoving off. That in itself is huge. Come join us in Texas. It's a different sort of beast with it's own set of demons...quite doable though. Great boat prep for tougher events. Just know the heat and humidity can be rough on northerners. And it Blows! No rowing necessary – usually.

**Randy Jensen**

July 10, 2022

for sure Texas 200 is on my wish list

**Dutchy**

July 17, 2022

Great report, enjoyed the sailing. (creator/sailer of "Woodmax")

# Squirt Does the Texas 200 – (Pt 2)

July 17, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: squirt trimaran, Texas 200

No Comments



# Outrigger Canoes of Bali and Madura, Indonesia (Book)

July 21, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: outrigger canoes book

No Comments

# Red Beard Sailing is a USA Rep for Astus Trimarans

July 24, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Astus trimaran

## Comments

**David**

July 26, 2022

Red Beard Sailing is located near Baltimore Md. I've dealt with them, and had a good experience.

# The Holopuni Sailing Canoe Story

July 26, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Holopuni Sailing Canoes

No Comments

# KISS – An Open-Source Paddle & Sailing Canoe

August 2, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: kiss sailing canoe, open source small trimaran

No Comments

# Paraw 16 Building Plans

August 6, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: paraw, Paraw 16

No Comments

# Blast from a TriFoiler Past

August 6, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: trifoiler, TriFoiler trimaran

## Comments

**Dutchy**

August 7, 2022

I have once done this using a windsurfboard and 2 waterskis as amas. There are some disadvantages of this configuration. Most important one is the not so good "close reaching" sailing speeds. Secondly the weight of the amas is always there, also when not needed at low windspeeds. Is this then a stupid idea? No, it is not if you want to have a safe fast beam reaching sailing vessel.

**ian**

August 17, 2022

Thanks Manfred for sending this along, it's a very interesting historical document of a design approach that seems mostly forgotten.

The extreme straightness of the amas with little to no curve or rocker really stands out and seems to reinforce the idea that these were being treated more as foils than hulls or a hybrid compromise of the two. It makes me wonder how much of the trend away from this style was the result of other foils outperforming it, and how much was because of resistance to adapting to sailing foil equipped boats in general and/or judging the design as something it really wasn't.

FWIW that is an ongoing issue in a couple of respects: there's some dispute about the hydrodynamics of the ngalawa outriggers where some people see them as a perceptive but crude attempt at exploiting this kind of foil concept and others claim that any resemblance to a foil or ski is strictly coincidental and the shape was just a function of what was easy and available.

The other thing is that there's a lot of assumptions made about shapes like skis and surfboards that tend to send experiments off on erroneous tangents, with the biggest one being that surfboards operate like a planing powerboat in a mostly flat orientation to the water surface. In fact they are displacement hulls and selectively weighting and unweighting them is used to induce a surfing state and develop thrust beyond that of sheer gravity as you slide down the wave face.

A perfectly flat attitude is rare; they may appear flat to the ground beneath the wave but are usually engaged in the wave surface at an angle and only go very flat when transitioning from one rail to the other being engaged (turning) or when you want to slow them down.

This design is interesting in that unlike many attempts to adapt surfboards or ski-like shapes as amas it orients them more vertically, at angles more like a surfboard to a wave face.

I'm of the opinion that this kind of shape can be optimized to transfer some of the natural weighting/unweighting of a multihulled sailboat in a seaway to also develop thrust beyond just the propulsion of a sail or motor, as well as harness and recover some of the energy that goes into wave making to assist forward momentum.

Some power tris do this by placing the amas where they will naturally be surfing on the main hull's wake, perpetually submerged enough that they are always trying to pop out of that wake like any hollow vessel held underwater...because of the shape and location of those vessels, that thrust energy can only go forward.

The important part in this context is that this is all based on buoyancy and displacement hull principles, not foils or strictly planing. For all the foil/ski like appearance of the traditional ngalawas I've never seen one where the amas appear to be planing or creating much obvious hydrodynamic lift...

that is often used to support the idea that there's little technical reasoning or physics behind their layout and shape, but I suspect that that may be based on starting from a false premise where pure hydrodynamic lift is seen as the only valid reason for that kind of shape.

# Passenger-Transport Trimaran Under Development

August 6, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: passenger transport trimaran, transport trimaran

No Comments

# Double Outrigger Canoe in Sarasota

August 6, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All, Small Trimaran Videos, Trimaran Design, Rigging, Construction Info/Links

Tags: double outrigger canoe, sarasota sailing canoe

## Comments

**michael**

August 6, 2022

what a great build and such a quick pathway to get on the water. There are always cheap secondhand canoes around to convert. Really like the layout. Are you able to share any details on the process. Are the aka's made from lamination or steamed? and what dimensions worked for you. Not familiar with that canoe what is its length.

Thanks for inspiring article

regards

michael

**Rick Meyer**

September 16, 2022

The Wenonah Jensen is a 17' canoe. I started out setting up the canoe to sail using the guidelines described by the American Canoe Association. Later I added the outriggers. The iako's are laminated using nine layers of 1/4" x 1 1/2" x 12' yellow pine.



# DC-3 Trimaran KAIMANA Sailing in CA

August 6, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

## Comments

**Brandon W.**

August 11, 2022

Rob,

Awesome boat, congratulations! I saw the electric outboard on there and would love to pick your brain about the range and weight of that set up. Beautiful boat and I bet she sails like a dream. Let me know if you ever make it up to Ventura, I sure would like to sail my old Cross 26 next to you and see if I could keep up.

Fair winds,

Brandon W.

**Rob Wyman**

October 7, 2022

Hi Brandon: Sorry for the late reply - I just saw this post. I'd be happy to chat about the electric outboard. I used it 3 or 4 times and it was great in the marina because it is so smooth and quiet, but the boat makes almost no headway when the wind picks up to 15 knots or so. I used about 30-40% of the battery if I used it for 30 minutes or so just to motor out of the marina and back in. I'm selling it since I also have a 6 hp gas outboard and want greater range and power, but it has some great features. I have Kaimana on the trailer now, so getting to Ventura might be in the future with a trip to Anacapa or Santa Cruz Island. I'm sure the two tri's would be pretty equally matched, and I'm a pretty poor racer, so I give you good odds. Feel free to email me at wyman688 AT gmail.com if you want to compare small tri notes or plan a sail.

**Rob Wyman**

October 8, 2022

Update on outboard motors: In August I took Kaimana to Catalina for the first weekend trip and on the 2nd day winds were on the nose and very light, so I motored for about 8 hrs to Santa Barbara Island. I ran my 6 hp Tohatsu at half throttle doing 5 knots and only used 2 1/2 gallons of gas all day.

# More Info On the Pedayak

September 15, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: PEDAYAK

No Comments

# Mix and Match Ulua (Double Outrigger)

September 18, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: double outrigger canoe, Ulua Outrigger Canoe

No Comments

## 2 Free Courses on Sailing Theory

September 19, 2022

Categories: Small Tri Info - All

Tags: sailing courses

No Comments

# DIY 'Bird of Prey' Canoe Stabilizers

October 9, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: diy canoe stabilizers

## Comments

**Dutchy**

October 15, 2022

Quite some engineering, Well done ! Now just adding a sail would turn this in a very versatile vessel.

# Drifter 17 Trimaran Under Sail

October 18, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: drifter 17 trimaran

No Comments

# Kairos4Two in the R2AK

October 23, 2022

Categories: Small Tri Info - All

Tags: Kairos4Two, Kairos4Two trimaran

No Comments

# Kulik Trimaran Videos (Another Look)

October 24, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All, Small Trimaran Videos

Tags: Kulik trimaran

No Comments



# Restored Aquadyne Sailbird for Sale

October 29, 2022

Categories: Production/Commercial Small Trimarans, Small Tri Info - All

Tags: Aquadyne Sailbird Trimaran

No Comments

# Waterlust Canoe Sailing in Norway

November 3, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: wanderlust canoe

No Comments

# Kayak Trimaran at Sunset

December 4, 2022

Categories: Self-built Small Trimarans, Small Tri Info - All

Tags: kayak trimaran

## Comments

**Thom Davis**

February 13, 2023

Fun boat and close to the water it is exhilarating. If you are going to get bigger/faster, everything has to get heavier. If you want to fly 2 hulls, you have to make the floats buoyancy bigger than the whole boat plus you. IMO, it is most fun, though, to have the float buoyancy just equal the boat weight...that way you only have to have a daggerboard and rudder on the vaka (otherwise you might as well go full on foiling). I also suggest mast further aft so you can have a high aspect mainsail without a boom and a self tacking jib so going to weather is as much fun as flying spinnaker downwind.

# Norm Cross Trimaran Designs – Building Plans

January 11, 2023

Categories: Self-built Small Trimarans, Small Tri Info - All, Trimaran Design, Rigging, Construction Info/Links

Tags: Cross Trimarans, Norm Cross Multihulls

## Comments

**Eric Dahlkamp**

January 13, 2023

Wonderful news! Ex-owner of Crosswins, Cross 18. Best little daysailer and open expedition tri on earth ?.