

Flicka Friends

September 2020

Issue # 71

Refitting s/y DULCINEA

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A Contrast In Scale

Bravo & Kudos

This issue of Flicka Friends is the largest one ever published. There is only a single reason for the number of pages and the valuable information contained in these eighty pages. It is the knowledge and efforts of Jamie White.

The details about Dyneema rigging certainly open your eyes to this option. Keeping a length of this material aboard might be considered for an emergency repair.

Of particular interest is the renaming ceremony found on page 37 of this issue. This is likely to become the standard renaming ceremony for the Flicka 20 and any other sailboat.

Bravo and kudos to Jamie White for his contribution to the Flicka Friends newsletter. Hopefully, we will hear more about his adventures aboard s/y **DULCINEA** in the future.

Thank you Jamie!

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Stepping the 16-ton mizzen lower mast and topmast on the 1885 **WAVERTREE** is a considerable contrast to the same task on a Flicka 20.

Photo: Jamie White © 2020

FRONT COVER

Ready for a sea-trial.
 s/y **DULCINEA**, hull # 302,
 a Pacific Seacraft Flicka 20, has taken my
 wife and me on as her new stewards.

Photo: Jamie White © 2020

BACK COVER

It is born.
 Pacific Seacraft Flicka # 302,
 s/y **DULCINEA** in the boatyard.
 Photo: Ruth Downes © 2020

There Is Magic



Fitting the lifting slings and clearing away gear on the **WAVERTREE's** mizzen mast (shown for scale... they are big masts).

Photo: Jamie White © 2020

By Jamie White

I first stepped aboard a Flicka in the early 1980s at a Boat Show in Long Beach, California where I was a sailing instructor at Marina Sailing across from the *RMS QUEEN MARY*. Her stout hull, proud bowsprit, sweeping sheer accented with cove stripe and scrollwork immediately captivated me. There is magic there.

Later in 1995 while supervising the rigging restoration of the 1906 four-masted barque *MOSHULU* in Philadelphia, I heard of Charles Dewell's passage on *KAWABUNGA* #171 from Marina Del Rey, California to Tahiti. I dreamed of one day sailing back to the South Seas in a small boat.

In 2003, I owned a teak Tahiti ketch for several years and often used my copy of "A Sailor's Sketchbook" by Flicka designer Bruce Bingham for project inspiration to improve my Tahiti ketch.

Currently, I am designing and supervising the rig restoration of James Cagney's one-time yacht *SWIFT of IPSWICH* in Los Angeles Harbor. Another of Flicka's parents,

Bill Luther, is serving as the project's naval architect.

Bill was the man responsible for shepherding Bruce Bingham's Flicka 20 into production at Pacific Seacraft in his role as vice-president of production. See the Spring [2003 issue of Flicka Friends](#), Page 22. It would seem I have been sailing in the Flicka's magical wake for a long time.

I sold my Tahiti ketch *TOREA* in 2010 when accepting the position of director of the historic 1877 barque *ELISSA* in Galveston, Texas. I moved to Galveston from San Francisco, resigning my position of Historic Ships Rigging Supervisor at the San Francisco Maritime National Historical Park, National Park Service.

While I have found a career working and sailing on large traditional square-rigged ships and traditionally-rigged boats since 1983, it has always been the smaller sailboats that have tugged at my heartstrings.

A Flicka certainly fills the sails of my desire to sail again, with the possibility of some longer passage making.

ABOUT FLICKA FRIENDS

Flicka Friends is a newsletter that is written specifically for the people who own, crew aboard, or are interested in the Flicka, a twenty-foot sailing vessel designed by Bruce P. Bingham.

Based on the Newport Boats of Block Island Sound, this fine little yacht has been built from various materials from the 1970's. This includes Flickas constructed from plans obtained directly from Bruce's California office. About 400 sets of plans were sold. According to Bruce Bingham, many Flickas can be found in New Zealand, Australia, and Sweden.

NorStar built approximately twenty hulls, and Westerly Marine completed some of them. The manufacturer of the bulk of the class is Pacific Seacraft who built 434 hulls in California.

Oceancraft Sailboats purchased the Flicka molds from Pacific Seacraft and they will be building the Flicka in North Carolina.

Flicka Friends is published on a quarterly basis with issues being posted to the Internet in March, June, September and December. Articles and photographs are welcome and encouraged.

You can download the current issue as well as the back issues of Flicka Friends from the Flicka Home Page:

www.flicka20.com

The Flicka 20 bulletin board can be found at:

<https://groups.io/g/Flicka20>

The Flicka 20 Facebook Group can be found at:

[Flicka 20 Facebook Page](#)

Flicka Friends is always in need of articles and photographs for publication. Please consider sending something to me for the next issue of the newsletter. Articles of any length can be published.

A cell phone image from your last outing in the bay, or ocean passage would be of interest to the Flicka 20 community.

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s/y *DULCINEA*

Boatyard Bliss and other Adventures in Fiberglass



KITTIWAKE on the first day of our journey together, August 2019.

Photo: Jamie White © 2020

By Jamie White

Last year, I had the good fortune to meet Hal DeVaney, the long-time owner of *KITTIWAKE*, a Flicka 20 berthed in Galveston where I currently live. Hal and I enjoyed lunch overlooking the marina where *KITTIWAKE* is berthed. At one point he said, almost in passing, that he was thinking of selling his boat.

After several heartbeats to contain my excitement, I mentioned I might be interested in buying her. We finished lunch and headed down to the boat for a tour.

While her topsides and mast were oxidized and gouged and her rigging needed complete renewal, the inside was beautiful teak with a new solid laminate headliner panel. Hal listed the sail inventory that included a genoa and storm jib and trysail in good condition. He also mentioned that the 10 horsepower Honda outboard worked well but was currently dry of fuel (a good thing with carburetors).

Hal told me that his main concern was that his Flicka went to the right person – and I am grateful that he thought I was that right person. So, on August 15, 2019 my wife Ruth Downes and I became the new stewards of s/y *KITTIWAKE* and soon to become s/y *DULCINEA*.

The following narrative with photos documents my restoration of *KITTIWAKE*'s hull and rigging from November 2019 to May 2020.

Before I begin, I must attest to the stoutness of our Flickas. Bruce Bingham's design and Pacific Seacraft's craftsmanship created a stout

little vessel that can cross oceans or be thrown upon concrete docks during a hurricane without complaint. Many of you are aware from Hal DeVaney's account in [Flicka Friends Vol. 16, No. 3](#) of *KITTIWAKE*'s dance with Hurricane Ike in September 2008.

Here are photos of *KITTIWAKE* thrown up upon the concrete dock at the Galveston Yacht Basin. She is nestled between several large boats with only one bent stanchion in her pushpit and some minor scratches...unbelievable, but a testament to her construction.

From here on, I will refer to *KITTIWAKE* as *DULCINEA*, as we re-christened her on December 21, 2019 upon her return from the restoration of her hull.

In anticipation of my first haul-out last November 2019 with *DULCINEA*, I looked through photos of her last haul-out in 2005 that Hal shared with me. I noticed she had a couple of blisters and spoke to Hal about any osmosis issues he thought she might have. I was very thankful for the photos and information Hal shared.

On November 19, 2019 my wife, Ruth Downes, and I cast off dock lines and motored *DULCINEA* the six miles to PayCo Marina & Boatyard on Galveston Island. We were delighted to feel her come alive and were pleased when we were given a brief dolphin escort down the ship channel.

Like most sailors who slip their "new" boat for the first time, optimism fills the air with the expectation of a quick "shave and a haircut" yard period.



SWIFT of IPSWICH sailing to Catalina Island off Los Angeles.
 Photo: Courtesy of Los Angeles Maritime Institute © 2020



Group photo of the key *SWIFT of IPSWICH* restoration staff.
 Bill Luther is second from right and I am on far left..
 Photo: Courtesy of Los Angeles Maritime Institute © 2020

The first haul-out of *DULCINEA*, ex *KITTIWAKE*, turned out to be a shave and a haircut unfortunately followed by total hip and knee replacement.

Being a good steward of any vessel requires you to forgo expediency and strive to always give your boat the full measure of your time and coin. I am glad to say we did that with *DULCINEA* during this haul-out.

The photos illustrate a yard period of a multitude of small and large tasks which included hull blister repairs – many involving grinding down to the fiberglass roving mat, dishing out an area to lay up new fiberglass, followed by epoxy filler, barrier coat and bottom paint.

Once the blister work was completed, the hull was prepped by fixing any chips, dings, or deeper gouges with epoxy filler and/or fiberglass cloth followed by epoxy primer and three topcoats of Interlux Brightside® polyurethane paint. Interspersed with all this, the painted aluminum main mast was stripped of its oxidized paint, sanded, etched, primed, and painted along with servicing all seacocks and thru-hull fittings.

Next I renewed the bottom sternpost bronze gudgeon as the old one had corroded away. Once the gudgeon was drilled and thru-bolted the final task was applying the new name to the topsides and returning her to her home berth.

After returning *DULCINEA* to her slip, she had a renaming ceremony followed by renewal of the original stainless steel chainplates and complete renewal of all standing and running rigging. Closing out this narrative on the restoration of *DULCINEA* will be a few photos of her first sea-trials.

As *DULCINEA* was being lifted onto the hard at the boatyard, I was buoyed by seeing just a smattering of blisters. Later, in the light of the afternoon sun, I saw many more blisters albeit mostly small ones.

My boat had acne and not a bottle of Clearasil in sight. Not a catastrophic problem but a problem, nevertheless. Maybe about two dozen small and a couple of 3-4" diameter blisters each side.

It was not unexpected; she had been sitting in warm salt water since her last haul-out. The prospect of a short yard period consisting of a "shave and a haircut" went out the window as I inspected the boat pox marring her lovely hull. Thus began an almost month-long haul-out.

In addition to the original plan of repairing the chips and gouges on her topsides and

renewing the coatings on her mast, I needed to come up with a repair plan for the osmosis damage.

A bad case of blisters can penetrate the skin coat, which is the first fiberglass layer underneath the gelcoat, and go deeper into the structural laminate. This was to be the fate of many fiberglass boats built after the Arab oil embargo of the mid 1970's.

There is much conjecture and it seems everyone has their own idea as to how the plague of boat pox began.

In any case, the Coast Guard decided to fund a study in 1985 and it eventually was undertaken by two chemical engineers at the University of Rhode Island: Thomas J. Rockett, Ph.D., and Vincent Rose, Ph.D.

Here is a link to their research and report prepared for the U.S. Coast Guard:

[The Causes of Hull Blisters](#) by Thomas Rockett, Ph.D. and Vincent Rose, Ph.D.

According to Drs. Rockett and Rose, blisters are small to large bumps on a hull, generally below the waterline, but can appear above the waterline in some instances.

The blisters range in size from the size of a pea to several inches in diameter and normally occur between the cosmetic layer of exterior gelcoat and the first outer layer of fiberglass composite (usually called the skin coat).

Although they can dig much deeper in some instances into the structural, heavy rug-like weave of woven roving. The skin coat of chopped fiberglass mat next to the gel coat is often composed of short fibers, not interlocked or woven fibers (limited structural strength, but of great benefit cosmetically). Chopped mat prevents "print out" from the heavier very defined woven roving mat, which could otherwise cause the gelcoat to have small wavy ridges; not the glass appearance we expect in gelcoat.

A series of excellent articles by David Pascoe, a reputable and respected marine surveyor, on the causes and solutions to osmosis blisters may be read or downloaded at: [Failed Blister Repairs, A Case History and Solutions](#).

We are fortunate that Pacific Seacraft has over-engineered our Flickas with soundly hand-laid thick hulls, so a handful or more of blisters should not be a concern, unless they go deep into the woven roving mat. Thankfully, only a couple of blisters just kissed the woven roving on **DULCINEA**.

The repair approach and use of the correct materials is vital to the strength of the repair



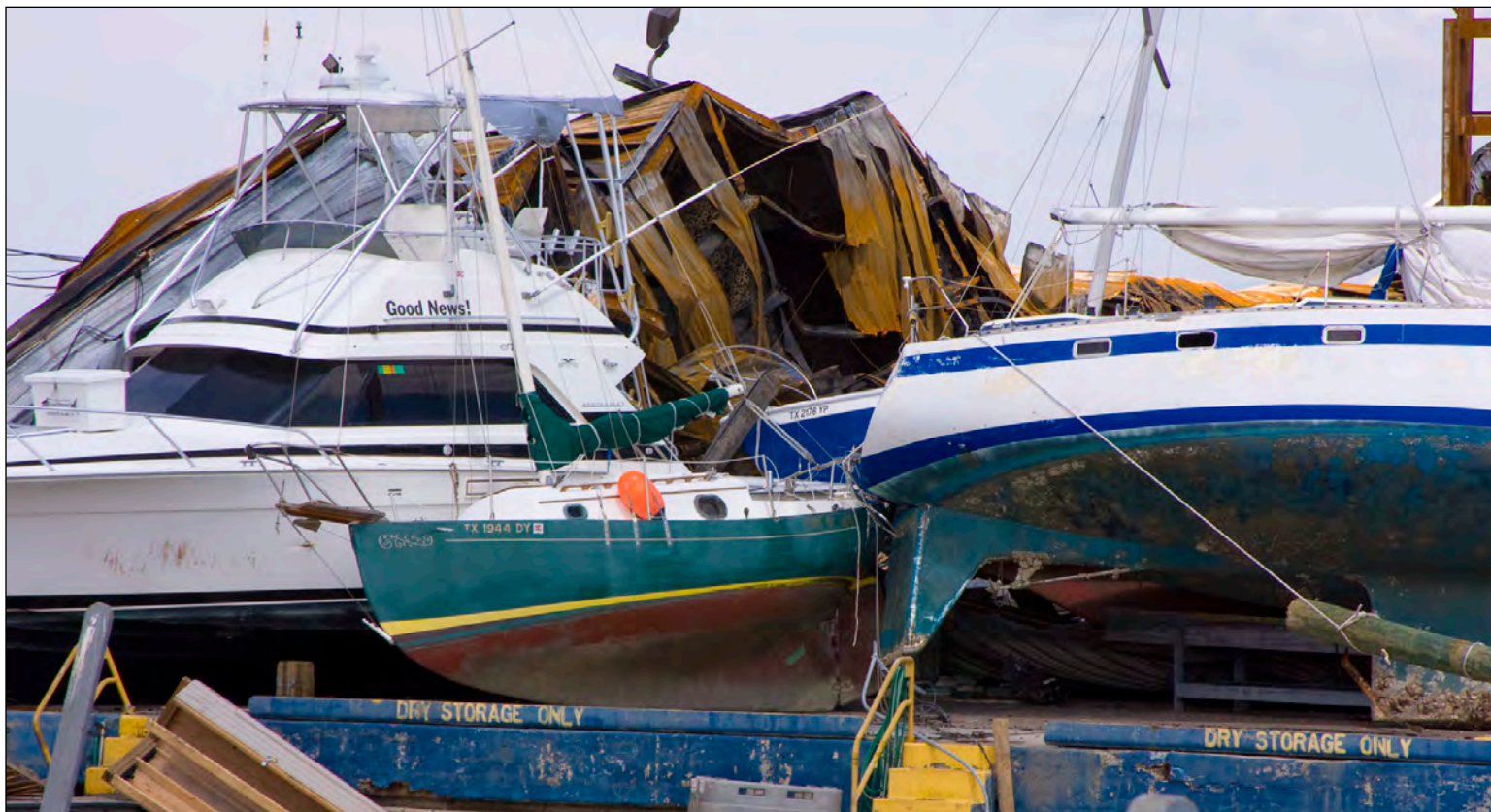
Hal alongside **KITTIWAKE** on our initial meeting.
Photo: Jamie White © 2020

and ultimately your boat's integrity. There are two categories of repair – cosmetic and structural. Small blisters may begin as cosmetic repairs, but over ten to twenty years can become structural if they are allowed to go deep into the woven roving laminates. With **DULCINEA's** acne I was faced with basically cosmetic but non-superficial repairs, and a handful of deeper repairs approaching structural depths if not addressed at this haul-out.

How do blisters occur? Through osmosis. Polyester resin used in the 1970s and 1980s and gel coat are fairly water-impermeable.

Water does pass through, though, and if there are small voids in the laminates due to resin starvation, it can get into them. The water has a chemical reaction with any uncured resin used in making the hull.

It creates an acidic liquid that then needs more water to reduce acidity. The classic definition of osmosis is "a process by which molecules of a solvent tend to pass through a semipermeable membrane from a less concentrated solution into a more concentrated one, thus equalizing the concentrations on each side of the membrane."



KITTIWAKE between a powerboat and large sailboat. No hull damage.
Photo: Hal Devaney © 2020



Lifting *KITTIWAKE* back into the water after Hurricane Ike.
Photo: Hal Devaney © 2020

This fluid pressure causes the acidic fluid to expand, thus creating a blister. This gives birth to a vicious cycle that can take years before it is first observed as a blister.

The best time to check for blisters is shortly after hauling the boat out of the water, with early morning or late afternoon sunlight to highlight any raised areas. Soon after removing the boat, the blisters will deflate, and you will not be able to see the extent of the problem. Another way is to lightly sand the bottom with 60 grit paper which will reveal any pimples by knocking off their tops, forming concentric rings which are very visible.

So, what to do when you discover your lovely *objet d'art* Flicka suspended in the Travel Lift slings has the pox? The first thing is to determine the severity of the blistering problem and how expensive a repair you are willing to undertake.

On yachts worth over \$50,000 it may make sense to let the hull dry out for several months or even longer after removing the gelcoat and skin coat of fiberglass with a planer – an awfully expensive option.

On less expensive boats that you never intend to sell, it makes sense to address the blistering problem in the manner I chose – by grinding down the blister to good fiberglass, laying up and wetting out the dished out area with fresh fiberglass cloth or bi-axial mat, and then fairing it before applying bottom paint.

So if your boat has blisters, and you are not sure what to do about it, keep an eye on the situation. If the blisters start to join up, or get too big, then do a cost benefit analysis to see if more extensive and expensive measures are required.

With **DULCINEA** being built in 1984, I decided she was not too badly afflicted with the pox after 36 years. I decided to spend a couple of weeks grinding out blisters and laying up new fiberglass and not go into the ultra-expensive moisture meter testing, removing of gelcoat and skin coat, and long hull drying out protocols with infra-red lamps and the like.

My plan for the blister repairs and other work:

- Survey and note/map location of blisters.
- Break open each blister.
- Grind away the broken dome of the blister.
- Scrub until clean with a stiff brush or Scotch-Brite® pad.
- Coat the inside of each cavity with epoxy resin.



Mast struck and ready to depart to boatyard.
Jamie White © 2020



Hmmm... does not look too bad.
Photo: Ruth Downes © 2020



Port side view of s/y **DULCINEA** on the hard.
Photo: Jamie White © 2020



Starboard side view of s/y *DULCINEA* on the hard.
 Photo: Jamie White © 2020



Topsides washed down and bottom pressure washed. I was surprised just how much bottom paint was intact after over 10 years since last haul-out.
 Photo: Jamie White © 2020

- Cut woven fiberglass mat and tear chopped strand fiberglass mat.
- Wet out fiberglass cloth until it is invisible.
- Use peel ply for a smooth surface and to carry away any amine blush or surface contamination.
- Apply epoxy filler and fair it.
- Repair topsides dings, gouges, and pinholes.
- Apply bottom paint.
- Paint topsides.
- Strip mast of oxidized paint and hardware and repaint.
- Replace corroded lower rudder gudgeon.
- Launch and return to home berth.

Break Open Each Blister:

First and foremost – gather and wear appropriate safety gear (PPE). A good half face or full-face respirator is a must when grinding bottom paint and fiberglass along with safety glasses of some description. Be sure to wear proper eye protection. A Tyvek suit will eliminate some of the itching that results from fiberglass repair.

Grind Away the Broken Dome of the Blister:

I was always amazed how much pressure was built up within some of the blisters. Not having safety glasses could allow the brownish acidic liquid with a pungent, vinegary odor inside the blister to hit your eye after lancing it...not a good thing.

I found that a 7” grinder with 36 grit worked great for opening up the blister and doing the initial dishing out. How much to dish out? I would grind back at a shallow slope (about 12:1 ratio of laminate thickness to area to be dished out) until I reached dry, clean fiberglass and removed all the rotten, decomposed material.

Keep cleaning out the area until you reach the good gel coat layer. If the laminate looks wet or damp, you will need to keep grinding until you reach the healthy fiberglass material. You will know if the laminate is good if you do not see any white or decomposed fibers. Once the bad material is removed you will have what looks like a saucer shape in the hull.

Sometimes a blister the size of my pinky tip would end up forming a dish 10” across before reaching sound fiberglass. I was lucky with *DULCINEA*, as none of the blisters went too far into the woven roving. When I thought I had dished out enough, I would take a plastic handled screwdriver and sound the perimeter for delamination.

It is obvious when tapping, as sound laminations have a sharp note to them and any delamination produces a dull thud. A dull or flat sound anywhere indicates additional delamination, meaning that the blister is larger than you thought. Increase the circumference (not the depth) of the depression until the laminate all around it is sound.

Scrub Until Clean with Stiff Brush or Scotch-Brite® Pad:

Once the blister is open, tap around the edges to make sure you have completely opened the damaged area. Wash the area to get rid of contaminants. You could use rubbing alcohol (isopropyl) and clean paper towels.

Use a Dremel rotary tool (small blisters) or grinder with a soft pad and 60-grit paper to grind away the rotten, decomposed material. You will want to get it all out of there. Keep cleaning out the area until you reach the good gel coat layer or clean fiberglass cloth or mat.

If the laminate looks damaged, you will need to remove enough laminate until you reach healthy fiberglass material. You will know if the laminate is good if you do not see any white fibers. It will be dark and transparent. Once the bad material is ground out you will have what looks like a dimple in the hull.

Cut Woven Mat and Tear Chopped Strand or Bi-Axial Mat to Shape:

The first step to laminating the repair patch is pre-cutting your patch materials to fit the repair. Cut each ply or layer so that it fits precisely into the area of the taper or into the shape that was prepared for it.

After cutting out the patch, I prefer to lightly rub the edges between my thumb and forefinger to feather the cut edges a wee bit. Using a high-quality pair of scissors is a tremendous help in cutting the fiberglass cloth and saves much frustration! I found that scissors with micro-serrated blades grip the material for non-slip cut, much better than household style scissors.

Coat the Inside of Each Cavity with Epoxy Resin:

Once you have measured and mixed your resin, start by pre-wetting the entire bonding area of the repair with resin. This will allow you to build a film of resin across the entire bonding area, maximizing the physical bond. I recommend applying the resin about one inch outside the area of the repair to guarantee a better bond.

At the edge of the repair, it is easy for the lip to suffer from resin starvation as gravity will pull the resin down the sloping sides of the dished out area.



A Tyvek suit and proper safety gear is a must.
 Photo: Ruth Downes © 2020

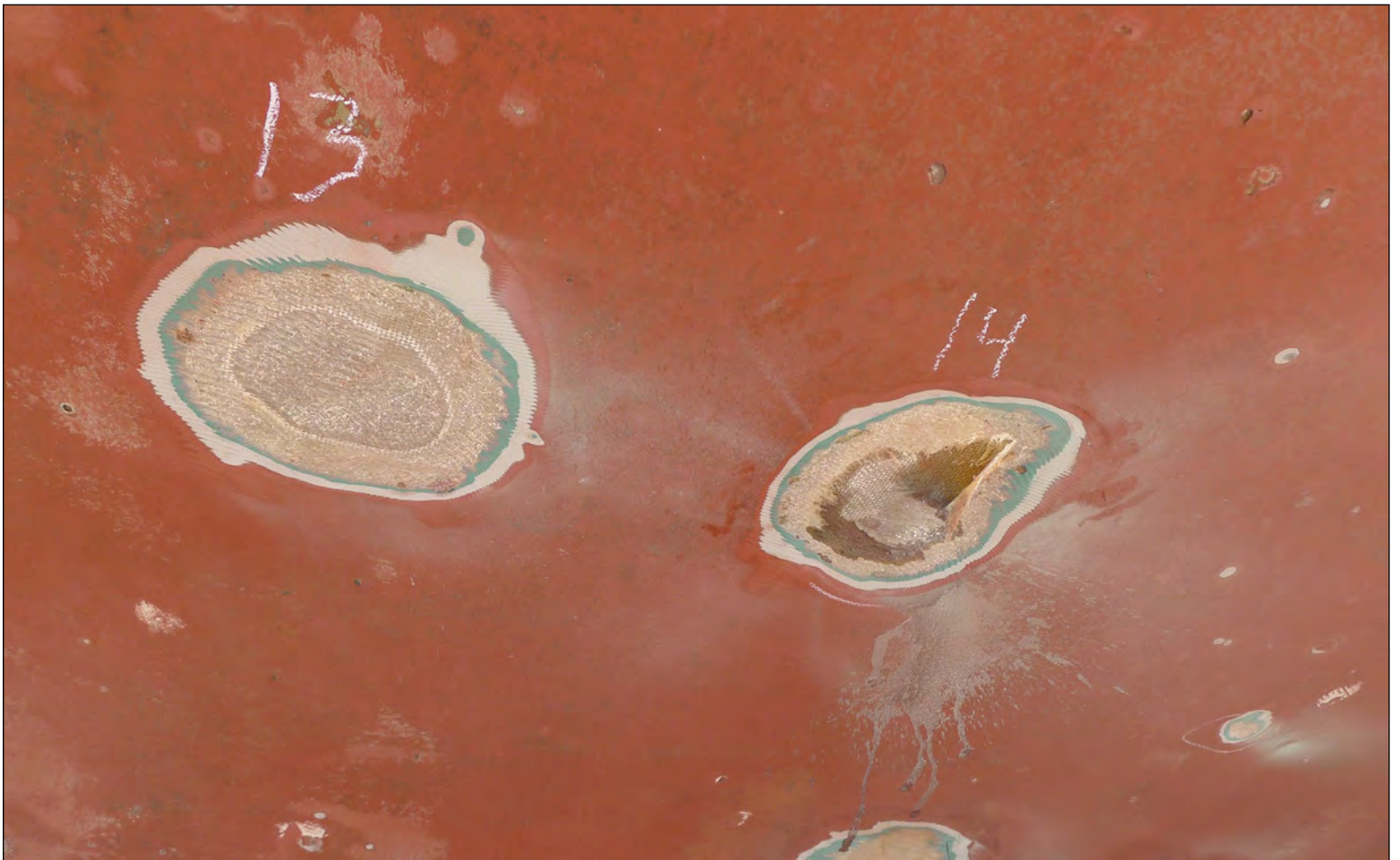


Beginning to grind down a blister until sound fiberglass is found.
 Photo: Ruth Downes © 2020

Continued on Page 13



Slowly grinding down until sound dry fiberglass mat or roving is reached.
 Only several blisters went deep enough to touch the structural roving.
Photo: Jamie White © 2020



Blisters #13 grinding done – a bit more grinding needed to #14.
Photo: Jamie White © 2020



Blister #14 grinding almost completed. Note the different layers and that the blister did not extend into the structural roving.
Photo: Jamie White © 2020



Starboard side ground down – next step finish port side and start laying up fiberglass cloth.
Photo: Jamie White © 2020

Continued From Page 10

**Wet Out Fiberglass Cloth
Until it is Invisible:**

It is vital that the fiberglass material is **THOROUGHLY** saturated with resin. I like to work on a sheet of stiff plastic and have used old Plexiglas with good results.

Using a stiff plastic plate helps to ensure the saturated fabric can be easily lifted from the plate once it is ready.

A flexible rubber squeegee or fiberglass roller are the best tools for spreading resin evenly through fabric and removing any excess resin and air bubbles which may be present before lifting it to the repair area.

Place each layer of reinforcement into its spot on the repair, ensuring proper orientation if the area is not symmetrical... remember to roll over the area as noted to remove air bubbles (especially important).

Heat

One thing to remember is there is a lot of heat generated when using catalyzed resin so it's a best practice to do two or three ply maximum, and not build up the layers so thick that a lot of heat will be generated.

Note the gray ring of barrier coat, then the green gelcoat and the 4 ply layers of alternating bi-axial mat and fiberglass cloth.

The needle-like ends of the cured fiberglass are easily sanded down, or use Peel-Ply as mentioned in the next section.

Use Peel Ply for a Smooth Surface and to Remove Amine Blush or Surface Contamination:

I had ordered Peel-Ply cloth, but it did not arrive until halfway through the wetting out and laying up of the fiberglass. It would have saved a lot of time to have it on hand.

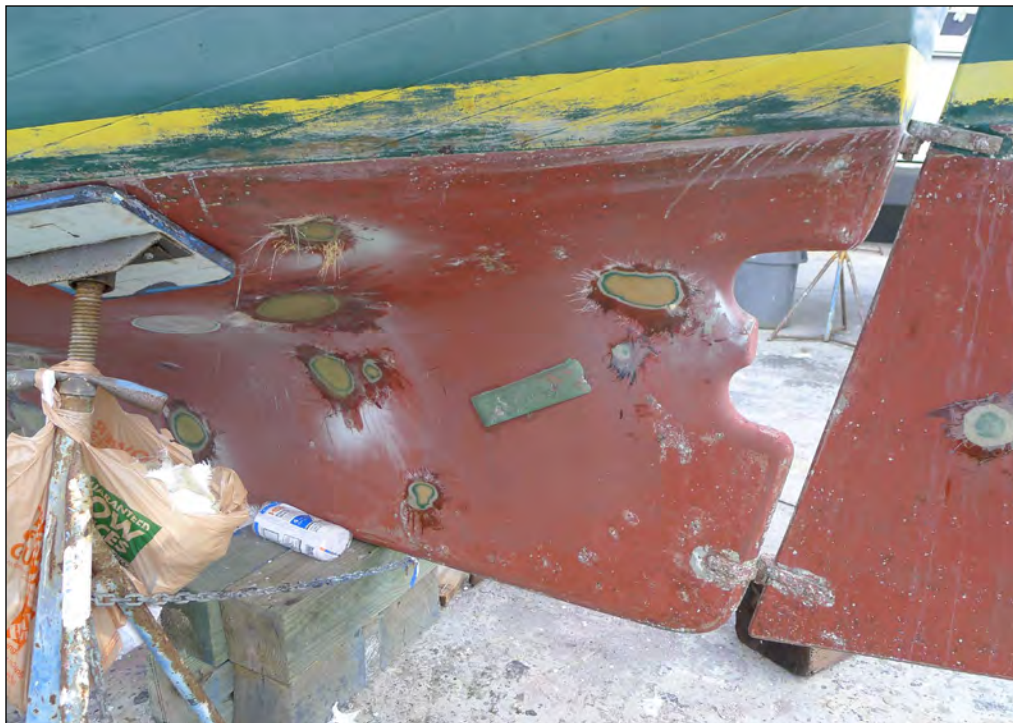
Without it and its ability to leave a smooth and amine blush clean surface, I had to do a lot of sanding smooth followed by a thorough fresh water washdown to remove the amine blush caused by the epoxy curing process.

The translucent squares are pieces of the Peel-Ply placed over the final lay up of cloth and smoothed down with a plastic spreader.

Very slick – I wish I'd had it from the beginning!

Apply Epoxy Filler Fairing Compound and Fair It Out:

Two-part Marine grade epoxy filler applied over repaired areas. I saw several folks at the yard using automotive filler that works great on a Mustang or Corvette, but eventually absorbs water on a Flicka 20.



It may look bad, however over 90% of the blisters were only in the cosmetic gelcoat and skin coat.

Photo: Jamie White © 2020



The needle-like ends of the cured fiberglass are easily sanded down.

Photo: Jamie White © 2020

Repair Topsides Dings, Gouges, and Pinholes:

Over the years, like most boats, *DULCINEA* collected various large and small dings, chips and gouges to her topsides and deck or deckhouse. While the dings on her decks and deckhouse were few and insignificant, those on her topsides were more numerous and, in some instances, quite deep. I decided to concentrate on the topsides and leave the deck and deckhouse for the next haul-out.

There were dings and crazing possibly from rubbing alongside mooring poles in her berth. Unfinished repair at both scuppers needed to be redone.

Apply Bottom Paint

One of the many virtues of a Flicka 20 is her diminutive yet stout design results in not having to use gallons of bottom paint. Before applying the bottom paint, I removed the yellow boot topping.

Before applying bottom paint, I went over all the repaired areas with four coats of Interlux InterProtect 2000E Barrier Coat Epoxy Primer.

Paint Topsides:

After all the topsides dings and gouges were repaired, I gave the topsides 2 coats of INTERLUX-404/414 two-part Epoxy Primekote. I rolled and tipped the final two topcoats of Sea Green INTERLUX-Brightside® One-Part Polyurethane Paint with good results.

Second topcoat Sea Green and second coat of Gold Leaf paint for scroll work and cove stripe. I applied faux gold leaf vinyl lettering on both quarters with her soon-to-be new name of *DULCINEA*. Before launching, I taped over her new name to avoid attracting the ire of the Sea Gods before a proper renaming ceremony could be held back in her berth.



Peel-Ply on the starboard side bister repairs.
Photo: Jamie White © 2020



Two-part marine grade epoxy filler was applied over the repairs.
Photo: Jamie White © 2020



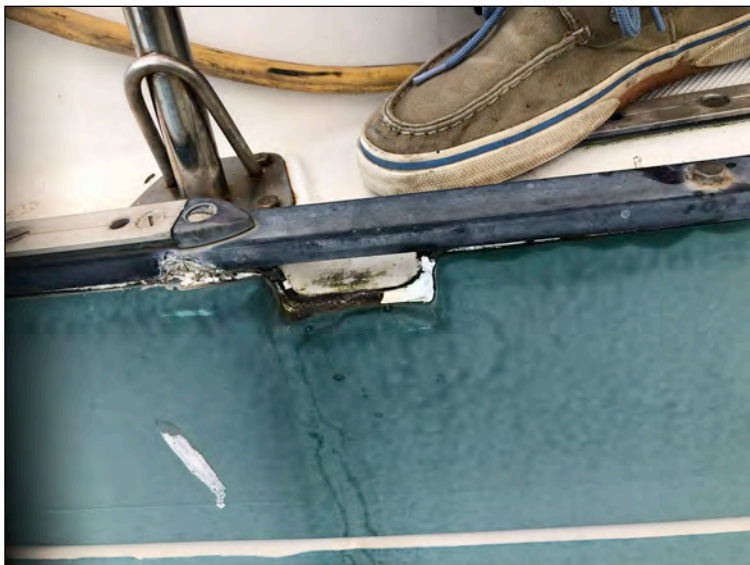
Others in the yard were improperly using automotive filler that will absorb water.
Photo: Jamie White © 2020



Dings and crazing possibly from rubbing alongside mooring poles in her berth.
Photo: Jamie White © 2020



Previous repair along the starboard deck / hull joint.
Photo: Jamie White © 2020



Unfinished repair at both scuppers needed to be redone.
Photo: Jamie White © 2020



Examples of pinholes in gelcoat at turn of topsides under the toe rail.
Photo: Jamie White © 2020



Examples of pinholes in gelcoat at turn of topsides under the toe rail.
Photo: Jamie White © 2020



The yellow boot stripe was removed before applying the bottom paint.
Photo: Ruth Downes © 2020



The previous repair to the port scupper.
Photo: Jamie White © 2020



Repair to starboard scupper using strips of fiberglass cloth under two-part epoxy filler and fairing compound by [Total Boat](#).
 I highly recommend it
Photo: Jamie White © 2020



The repaired areas were covered with four coats of barrier coat.
Photo: Jamie White © 2020



Hull repair along the hull/deck seam.
Photo: Jamie White © 2020



Port deck seam and various repairs including the port scupper.
Photo: Jamie White © 2020



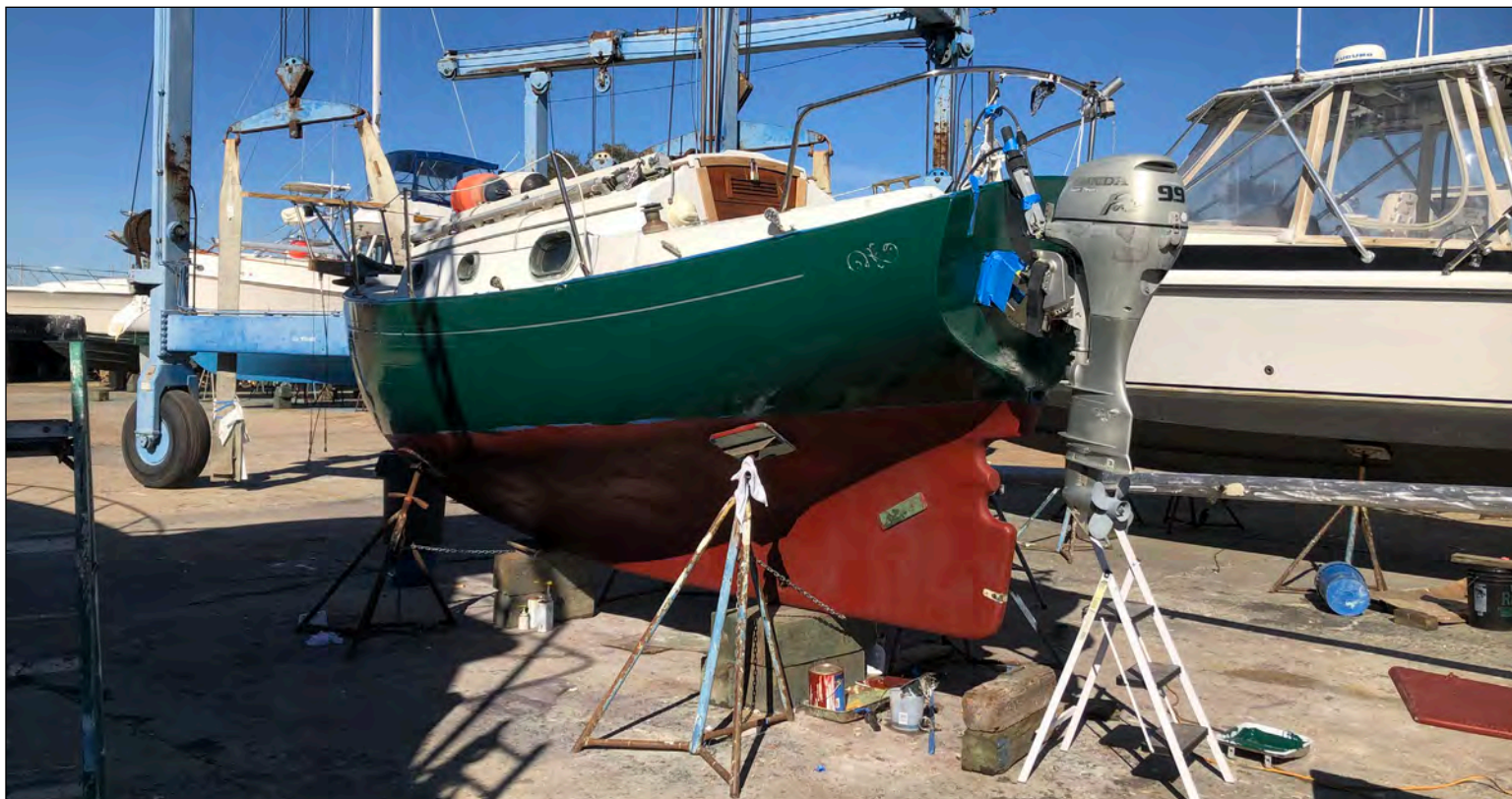
Repairs to the gelcoat on the starboard hull at the deck connection.
Photo: Jamie White © 2020



The final coat of bottom paint before priming and painting the topsides.
Photo: Jamie White © 2020



Two primer coats were applied to the topside of the hull.
Photo: Jamie White © 2020



First topcoat of Interlux Sea Green Brightside paint.
Photo: Jamie White © 2020



Second topcoat Sea Green and second coat of Gold Leaf paint for scroll work and cove stripe.
 I applied faux gold leaf vinyl lettering on both quarters with her soon-to-be new name of *DULCINEA*.
Photo: Jamie White © 2020



Before launching, I taped over her new name to avoid attracting the ire of the Sea Gods before a proper re-naming ceremony could be held back in her berth.
Photo: Jamie White © 2020



The painting of the hull and mast are complete.
Photo: Jamie White © 2020



Final touch up of the bottom paint before launching. Note the refinished cheeks on the rudder.

Photo: Ruth Downes © 2020

Repainting The Mast



Paint removal from the mast during the refit of Pacific Seacraft Flicka # 302.
Photo: Ruth Downes © 2020



A mast looking for a paintbrush. Getting ready to remove all hardware, tracks, and masthead sheave box before removing oxidized coating.
Photo: Jamie White © 2020



Removing paint and oxidation with a combination of chemical strippers and soft abrading wheels on an electric drill.
Photo: Jamie White © 2020



After doing a dye-pen test of the tangs, I decided to not remove them at this haul-out, as they showed no fissures or cracks.
Photo: Jamie White © 2020



After removing all the old paint, I sanded the aluminum mast using 220 grit paper followed by a mild acid etch of white vinegar and water. Then I applied an aluminum etching primer followed by three topcoats of white INTERLUX–Brightside® One-Part Polyurethane Paint. After it dried, I affixed the hardware, bedded with LanoCote® to combat galvanic corrosion where dissimilar metals are fastened together.

Photo: Jamie White © 2020

A New Teak Tiller



Underway with my new tiller.
 Photo: Ruth Downes © 2020



New tiller aboard s/y *DULCINEA*.
 Photo: Ruth Downes © 2020

By Jamie White

When I was in San Pedro rigging the brig *SWIFT of IPSWICH* I made a pilgrimage to Minneys Yacht Surplus in Newport Beach [Minney's Yacht Surplus](#). *DULCINEA*'s old tiller was rotten and broken, so I was overjoyed when I found a solid teak tiller at Minney's.

The new tiller was from a larger 48' ketch and I had to reshape it to fit *DULCINEA*'s cockpit and rudder.

Luckily, I had become friends with a wonderful lady and fellow Flicka owner and aficionado named Ginger Clark. Ginger has a Flicka named *CORSAIR*, 1982 hull number 199 located in San Pedro, not far from the *SWIFT of IPSWICH* project. I was able to check the fit and sweep of the new tiller on *CORSAIR* and found it perfect!



Reshaping the tiller. The tiller at top of photo is a spare tiller I purchased at Minney's that will serve as a back up or emergency tiller.
Photo: Jamie White © 2020



Tiller varnish and fancy rope work being worked.
Photo: Jamie White © 2020



The completed tiller and rope work aboard s/y *DULCINEA*.
Photo: Jamie White © 2020

By Jamie White

The penultimate task was renewing the bottom sternpost bronze gudgeon as the old one had corroded away. I was very fortunate having a lot of good advice as to sourcing a new bronze gudgeon by members of several of the Flicka 20 groups I belong to.

The rudder was removed and rudder head cheek plates ready for sanding and varnishing. Next was an inspection of the pintles and gudgeons.

While the upper rudder gudgeon was in good condition with a tight fitting pintle, the lower one was corroded and exhibited a pink hue – a sure indication of galvanic issues.

I discovered that Pete Langley, owner of Port Townsend Foundry in Washington, had the original wooden patterns from Pacific Seacraft and quickly cast a new gudgeon for me. It is a beautiful example of his craftsmanship. If you are in need of new gudgeons, give him a call.

A wooden pattern was used to create the mold for the new gudgeon and the cast gudgeon from that mold.

I asked Pete to not drill out holes for the through bolts, so I could drill the holes out when mounting the gudgeon to ensure an accurate fit.

After the gudgeon arrived, I checked the fit on the rudder pintle and discovered the leading edge of the rudder prevented the pintle from marrying the gudgeon. I used a grinder to lightly trim the leading edge and then primed and painted the area. Upon re-checking the fit, the pintle slid into the gudgeon perfectly for a nice firm fit.

Next, I used a block of wood to act as a stop when fitting the gudgeon to the stern post.

Once the gudgeon location was established, I used a portable drill press and a long shanked bit to drill the holes through the new gudgeon, hopefully hitting the hole in the rudder and exiting from the center of the other side leg of the gudgeon.

Success...now for the second through hole. Then, the sternpost gudgeon bedded and through bolted.

Port Townsend Foundry

Port Townsend, WA
(360) 385-6425

ptf@olympen.com

<https://www.porttownsendfoundry.com>

<https://www.facebook.com/PTFoundryLLC/>

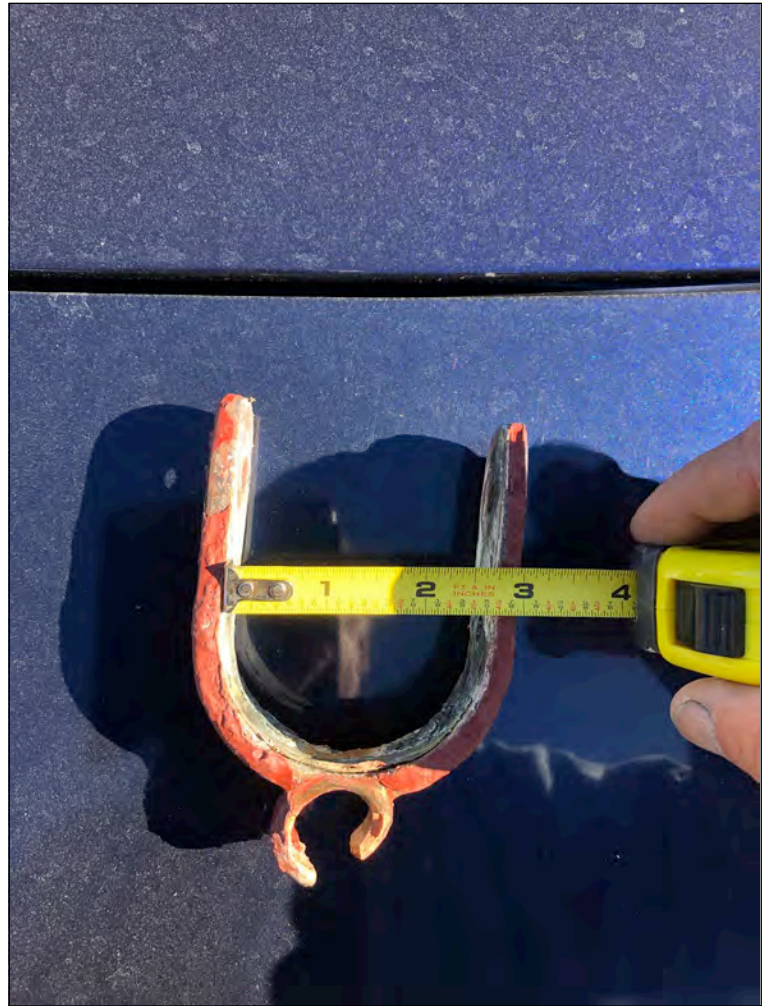


Rudder removed and rudder head cheek plates ready for sanding.

Photo: Jamie White © 2020



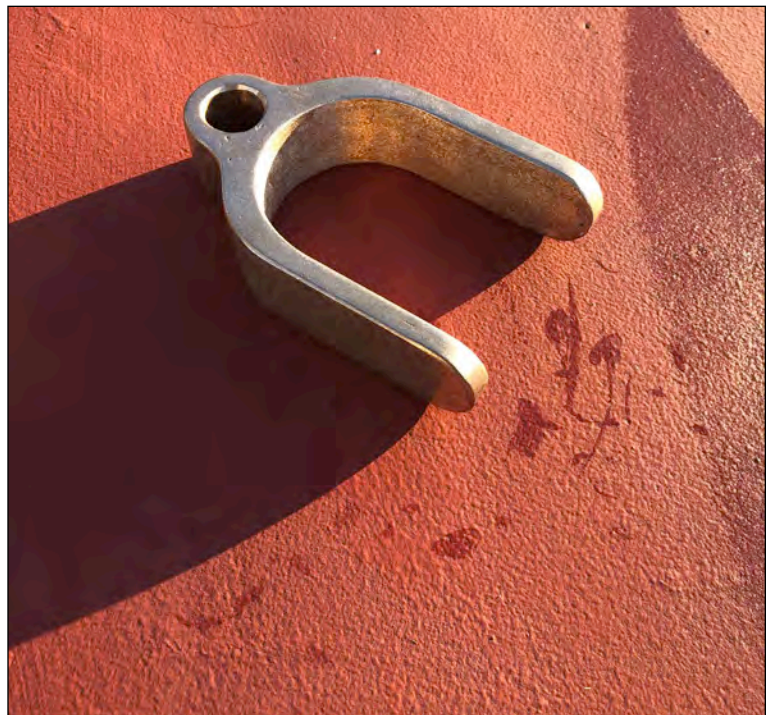
Broken lower gudgeon.
Photo: Jamie White © 2020



Measuring the gudgeon for a replacement.
Photo: Jamie White © 2020



Flicka 20 Gudgeon pattern from Port Townsend Foundry.
Photo: Jamie White © 2020



Lower Gudgeon for the Flicka 20 from the Port Townsend Foundry.
Photo: Jamie White © 2020



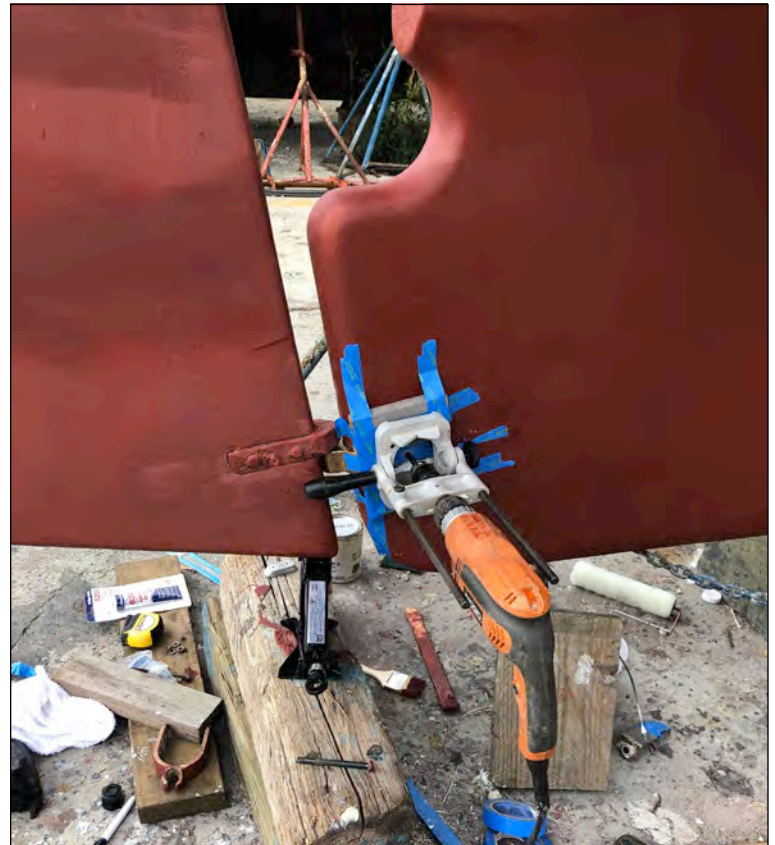
Test fitting of the new gudgeon.
Photo: Jamie White © 2020



The rudder was lightly trimmed for the new gudgeon.
Photo: Jamie White © 2020



A wooden block was used as a stop for fitting the gudgeon.
Photo: Jamie White © 2020



A portable drill press was used to drill the holes.
Photo: Jamie White © 2020



A long shank drill bit was required.
Photo: Jamie White © 2020



Success! Now for the second hole.
Photo: Jamie White © 2020



Completed replacement of the lower gudgeon of s/y *DULCINEA*.
Photo: Jamie White © 2020

Back In The Water



Now that **DULCINEA** is safely alongside her berth in Galveston Yacht Basin, it is time to do the final tasks before her first sail and sea-trials. The list included fitting the new bowsprit (note new one lashed alongside bow pulpit), a renaming ceremony, and stepping the mast.

Photo: Ruth Downes © 2020



DULCINEA in the Travelift slings and moving towards kissing saltwater again.
Photo: Jamie White © 2020



Final inspections by my lovely wife Ruth Downes and me... good to splash.
Photos: Ruth Downes & Jamie White © 2020

Fitting A New Bowsprit



Success! The old bow sprit has been finally removed!

Photo: Jamie White © 2020

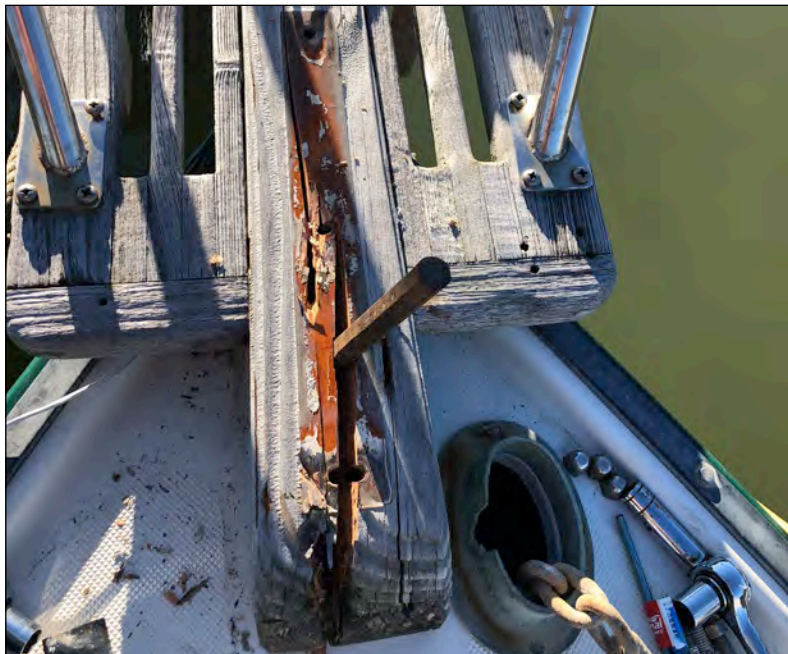
By Jamie White

Hal DeVaney had a beautiful new bowsprit, built with handsome teak planking, that he left on the boat after I purchased her. After some gymnastic contortions in the forepeak to remove the old through bolts, the old bowsprit almost came off.

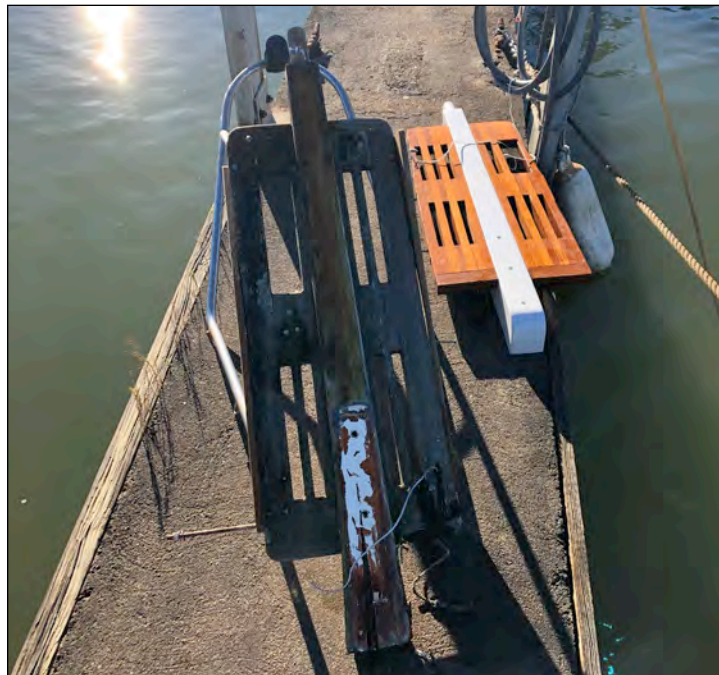
The only thing preventing me from removing and fitting the new one was the layer of 3M-5200 Polyurethane Adhesive/Sealant. It is my

firm conviction, after years of restoring large and small sailing ships, that the **ONLY** place for 3M 5200 is at the keel/hull and hull/deck joints.

I tried using heat to weaken the seal between deck and old bowsprit, and tried the old trick of using a guitar string to slice (or more accurately, saw) through the old adhesive. In the end I had to resort to using a chisel and blowing out the spar along the grain to finally extricate it from its long-time home.



Resorting to a chisel after failing to unseat the bowsprit using heat and guitar string garrote.
Photo: Jamie White © 2020



Old and new bowsprits.
Photo: Jamie White © 2020



New bowsprit fitted with new galvanized chain bobstay and bowsprit shrouds.
Photo: Jamie White © 2020

Renaming Ceremony



The group gathered to toast **DULCINEA**.
 Photo: Ruth Downes © 2020

By Jamie White

After our new boat found us as her new stewards and caretakers, we decided to rename her. Her previous name **KITTIWAKE** held no significance to us, and I was reluctant to rename her as her previous steward, Hal DeVaney, was very gracious in passing **KITTIWAKE** into our hands and I did not want to make him sad. However, Ruth had longed to have a boat named **DULCINEA** and we wanted something that would make her 'ours'....so we started off on the journey to re-christen **KITTIWAKE** as **DULCINEA**.

Being a very traditional sailor and rigger of sloops to brigs to full-rigged ships, I needed to follow the protocol of re-naming that would appease the Gods of the Seven Seas. Some folks claim it is unlucky to re-name a boat of any size or class; others say that it will anger the sea gods and bode ill for any future passage. Several folks have questioned the re-naming of a vessel, citing that it is bad luck.

I say nonsense! I have restored the rigging on six historic square-rigged vessels launched from 1877 to 1904 that have circumnavigated our globe many times under several different names. These are lucky ships indeed!

I must firmly disagree. I have been involved as either master rigger, lead rigger, or director on five of the luckiest historic sailing ships still afloat:

The still actively sailing 1877 barque **ELISSA**,

- ex **PIONEER**,
- ex **ACHAEOS**,
- ex **CHRISTOPHOROS**,
- ex **GUSTAV**,
- ex **FJELD**,
- ex **ELISSA**.

Opposite Page:

The invitation to attend the re-naming ceremony with all decorum, solemnity, and tradition to appease the gods of the winds and waves.
 Photo: Jamie White © 2020

*The Ceremony of re-christening
to
appease all the Gods of Wind and Sea
Shall take place aboard The yacht
Dulcinea*

*On Sunday the 22nd of December 2019
(at six bells in the after-noon watch)*

where she lies

in the Marina called Galveston Yacht Basin

At berth 35 on the west road in Galveston.

Your presence is requested.

Libations of a standard sort, including Rum, Grog, and Ale

And for those of a Poetical Bent of Mind

Absinthe

Shall be available. You are Encouraged to add What you will.

The deck will be available for Premenade.

Please RSVP by sunset Saturday 21st December 2019

clyderigged@yahoo.com or reply to this communiqué

- 1886 full rigged ship **BALCLUTHA**,
ex **PACIFIC QUEEN**,
ex **STAR OF ALASKA**,
ex **BALCLUTHA**.
- 1885 full rigged ship **WAVERTREE**,
ex **DON ARIANO N**,
ex **WAVERTREE**,
ex **SOUTHGATE**.
- 1904 **MOSHULU**,
ex **DREADNOUGHT**,
ex **KURT**.
- 1896 barque **GLENLEE**,
ex **GALATEA**,
ex **ISLAMONUNT**,
ex **CLARISTELLA**,
ex **GLENLEE**.

To re-name a vessel is not too involved, but does require several steps and a properly solemn ceremony as befits the Gods of the Seven Seas. And there is a pantheon of gods and deities from Powerful Poseidon to Mighty Neptune to the Norse God Njörðr and Polynesian God Tangaroa, as well. So...what does a mere mortal do to not anger the Gods of the Sea?

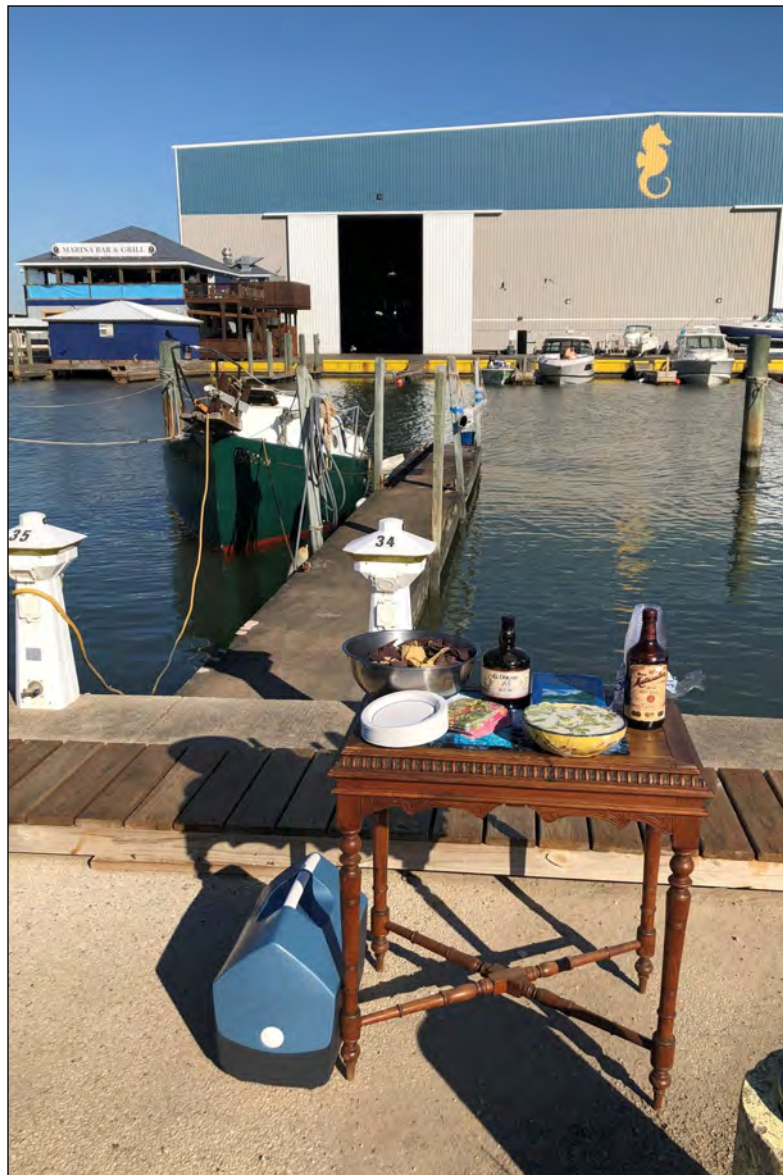
In its simplest form, to re-christen a vessel all you need to do is to break all the ties to the Deities of the Deep and create a new nexus with some oratory and spirit...of the fermented grape or distilled grain or sugar cane variety. The Deities of the Deep may be gods but can be influenced. Ceremonies have been created over the millennia to ward off any potential consequences that may arise from re-christening a vessel with a new moniker.

With a little research online or in a library, one can find a ritual containing the proper protocol to appease Neptune and his brethren.

As Keeper of the “Ledger of the Deep”, Poseidon maintains a list of all vessels that sail, motor, and cross his seas, called the “Ledger of the Deep”. Sailing superstition holds that if you change the name of a vessel without consulting Poseidon, his list is no longer accurate, and the Gods of the Deep feel duped and their wrath is invoked. Woe to the sailor who changes a vessel’s name without proper homage and tribute to Neptune, Poseidon, et al! To appease them in a traditional way, you must perform two ceremonies—one boat name purging and one boat renaming—so Poseidon can wipe the old and add the new name to the Ledger of the Deep.

Our ritual began early the day before the actual ceremony, by removing all references or vestiges of the previous name **KITTIWAKE** from the vessel (otherwise the ceremony is void). Luckily there was no logbook with **KITTIWAKE**’s name on it nor life rings, maintenance records, etc. The name on her port and starboard quarter were removed by sanding off the letters when I repainted the hull early in the month at her haul-out. At the conclusion of the haul-out, but before her keel kissed the sea again, I applied her new name **DULCINEA** where **KITTIWAKE** was before, and covered the name with sail cloth so as not to draw the anger of the Denizens of the Deep until the proper rituals had been performed.

So, on Sunday 22 December 2019 at six bells in the afternoon watch, friends and shipmates gathered at the bow to bear witness to the re-naming of our fine craft (and have great rum and guacamole).



At seven bells in the afternoon watch...
Photo: Jamie White © 2020

At seven bells in the afternoon watch, I went aboard with a flask of 15 year-old El Dorado Rum and a seashell with the name **KITTIWAKE** written on it in water-soluble ink.

It was time to commence the ceremony.

Everyone mustered on the dock as I stood on the bow to begin the proceedings. After seeing everyone had a libation in hand, I poured some rum into the water facing the western sun and said the following words as detailed in the “Re-Christening Ceremony” on the opposite page and captured on several videos, too.

At the close of the ceremonies a toast was made to the Gods of the Winds and to **DULCINEA** after which I went to the stern and removed the sailcloth that covered her new name **DULCINEA**. Not having her mast rigged yet, I surged **DULCINEA** ahead on her dock lines and releasing them allowed her to “sail” over her old name... she was now the beautiful sloop **DULCINEA**. For me the ceremony passed so quickly but will forever be engraved upon the heart and memory of this sailor with happiness and gratitude.

Huzzah **DULCINEA**... long may she sail.



The ceremony and the script I recited to the right...
 Photo: Ruth Downes © 2020

Re-Christening Ceremony Script:

In the name of all who have sailed this vessel in the past, and in the name of all who may sail aboard her in the future, we invoke the ancient gods of the wind and the sea to favor us with their blessing today.

I bid hail! **Aeolus** and **Poseidon, Neptune,** and **Njörðr**, and all the other multitude of deities of the watery world! and seek your benefaction upon this vessel, may the name she carried before, be gone as the winds of yore, having served her former masters and crews with honor and safe passage.

I now, with deep respect, petition you royal beings, to give this vessel's new hailing and her next voyages, your kindness and safe passage.

Oh mighty and great ruler of the seas and oceans, to whom all vessels and we who venture upon your vast domain are required to pay homage, implore you in your graciousness to expunge for all time from your records and recollection the name **KITTIWAKE** which although has ceased to be an entity in your kingdom she will remain in the hearts of all who sailed upon her.

As proof thereof, we submit this seashell bearing her name and spirit to be evanesced through your powers and forever be returned to the sea. **(Drop the shell)**

Mighty **Neptune**, king of all that moves in or on the waves; and mighty **Aeolus**, guardian of the winds and all the blows before them, we offer you our thanks for the protection that you have afforded this vessel in the past. We voice our gratitude that she has always found shelter from tempest and storm and enjoyed safe passage to port.

Now, wherefore, we submit this supplication, that the name **DULCINEA** by which this vessel will henceforth be known, be added to your vessels book of records and taken into your recollection... guarding her with your mighty arm and trident and ensuring her safe and rapid passage throughout her journeys within your realm.

Further, we ask that she shall be recognized and shall be accorded once again the selfsame privileges she previously enjoyed. In return for which, we rededicate this sailing vessel **DULCINEA** to your domain in knowledge that she shall be subject, as always, to the immutable laws of the gods of winds and the sea.

In grateful acknowledgement of your munificence and dispensation, we offer these libations to your majesty and your court.

Oh mighty rulers of the winds, through whose power our frail vessels traverse the wild and faceless deep, we implore you to grant this worthy vessel, **DULCINEA**, the benefits and pleasures of your bounty, ensuring us of your gentle ministration according to our charted courses.

Great **Boreas**, exalted ruler of the North Wind, grant us permission to use your mighty powers in the pursuit of our rightful endeavors, ever sparing us the overwhelming scourge of your frigid breath. **(Fling rum to the North)**

Great **Zephyrus**, exalted ruler of the West Wind, grant us permission to use your mighty powers in the pursuit of our rightful endeavors ever sparing us the overwhelming scourge of your wild breath. **(Fling rum to the West)**

Great **Eurus**, exalted ruler of the East Wind, grant us permission to use your mighty powers in the pursuit of our rightful endeavors ever sparing us the overwhelming scourge of your mighty breath. **(Fling rum to the East)**

Great **Notus**, exalted ruler of the South Wind, grant us permission to use your mighty powers in the pursuit of our rightful endeavors ever sparing us the overwhelming scourge of your scalding breath. **(Fling rum to the South)**

A toast --- "To the Gods of the Winds"

A toast --- "To **DULCINEA**"



Food, libations, and a good book.
 Photo: Jamie White © 2020



The ceremony began at six bells in the afternoon..
Photo: Ruth Downes © 2020



The ceremony begins with a toast to Poseidon, Neptune, et al!
Photo: Ruth Downes © 2020



The new name **DULCINEA** is covered, so as not to anger Neptune, Poseidon, Llýr, Njörðr or any of the multitude of deities of the watery world.
Photo: Jamie White © 2020



Incantations spoken, and libations poured to the Gods of the Deep... her new name is revealed.
Photo: Ruth Downes © 2020



Guest of honor – Hal DeVaney and his friend Marjorie Adams.
Photo: Ruth Downes © 2020

A special gift from my good friend Jonathan Frank – a watercolor he painted of *DULCINEA* underway that now resides in her logbook.
Photo: Ruth Downes © 2020



A special gift from my good friend Jonathan Frank – a watercolor he painted of *DULCINEA* underway that now resides in her logbook.
Photo: Ruth Downes © 2020

By *Jamie White*

Now that *DULCINEA* has been properly re-christened, it is time to turn to and renew her standing and running rigging and step the mast, but first it is time to renew her stainless steel chainplates.

When I was repairing *DULCINEA*'s topsides, I removed the chainplates to make painting easier. Upon inspecting the chainplates and tangs for the bowsprit shrouds, I discovered many had cracks and other signs of crevice corrosion.

Chain Plate Renewals in Silicone Bronze:

I first discovered a small crack in the starboard bowsprit shroud tang shortly after taking over *DULCINEA*'s stewardship. With *DULCINEA* being over thirty years old, I had a suspicion that all the other chainplates might have microscopic and visible cracks once the carriage bolts securing them to the topsides were pulled. I was interested in seeing the backside of the chainplates as they never receive oxygen, which is vital for stainless steel to remain "stainless" and not "stainmore." Oxygen forms the oxide which protects the steel from crevice corrosion and keeps it "stainless".

Most of the cracked/broken chain plates I have seen are those with square holes to accept carriage bolts. In stainless steel, sharp internal corners are called "stress risers," and loads are concentrated at that location. The danger is that since these small cracks are not visible without a dye test on the metal, by the time a crack becomes visible it can be a big problem that can lead to a major rigging failure. Most stainless is highly polished to get rid of tiny surface imperfections that can induce corrosion.

One thing to keep in mind about stress on chainplates is that it is not always just the usual forces of sailing that can stress them. Even a misaligned prop shaft or old motor mounts can subject the hull to vibrations that transfer to the chainplates and to the rig. Motoring or sailing are not the only culprits; your boat's rigging also takes millions of vibrational loads sitting at the dock, from wind and wakes of passing vessels with the attendant snubbing of the boat's motion from dock lines.

All this vibration leads to "work hardening" of the stainless chainplates. The work hardening coupled with crevice corrosion and stress risers are a leading cause of rig failures. As a general rule of thumb, any boat over 15 years old should have all the chainplates removed and inspected, especially those that pass through the deck (which fortunately is one



Chainplates

A small crack in the starboard Bowsprit shroud tang prompts additional inspections. The chainplates were checked as well, and replaced.

Photo: Jamie White © 2020

thing we do not have to worry about with our Flicka's outboard chainplates). Not only is it important to inspect where the bolts or carriage bolts pass through the chainplate, but one should also inspect the upper eye where the turnbuckle toggle attaches, as it often shows stress signs as well or elongation of the hole.

I used a magnifying glass to aid with this inspection after cleaning the metal with a Scotch-Brite pad sprayed with some WD-40. An even better approach is to get a dye penetration kit from Grainger's or a welding

supply company and check for cracks and fissures following the manufacturer's instructions. Look carefully for hairline cracks and for rust stains at holes and any welds. Surface rust stains can be a tell-tale sign of worse corrosion. If you are inspecting chainplates that are bolted to the exterior of the hull, check the bolts for rust staining as well.

Another item worthy of inspection is the stainless-steel alloy of which the boat's chainplates are made. Though 304 stainless is

Continued on Page 45



Port view of the hull after removal of the chainplates.
Photo: Jamie White © 2020



Port #2 chainplate. Note crack.
Photo: Jamie White © 2020



The hull liner carpet was partially removed when I took over stewardship of *DULCINEA* so it was simple to remove the rest of it to gain access to remove and then tighten the carriage bolts.
Photo: Jamie White © 2020



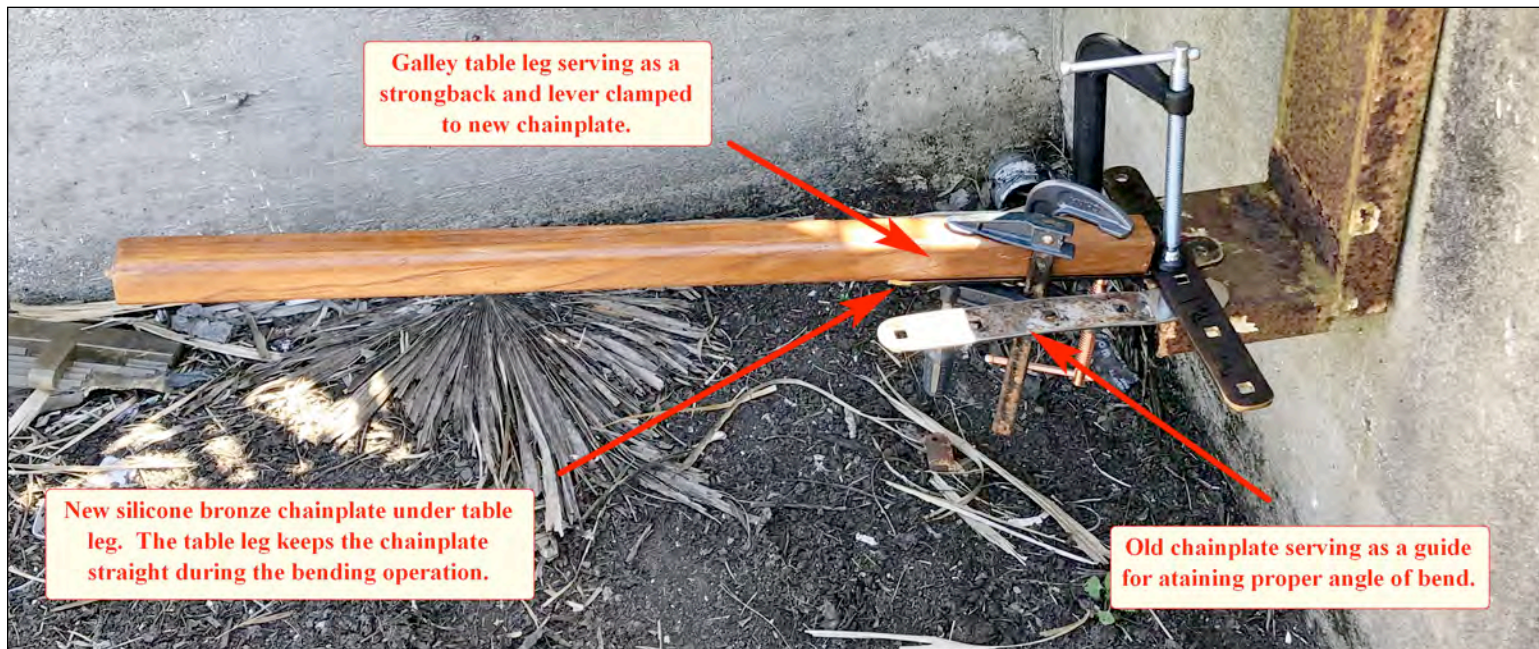
Bowsprit shroud tangs.
Photo: Jamie White © 2020



After cleaning up the faying surfaces of the hull liner to obtain a good watertight seal under the backing plate.
 Note the thick heavy fiberglass roving our Flickas were laid up with by Pacific Seacraft. Stout!
Photo: Jamie White © 2020



Portside backing plates installed and bedded with 3M 4000 polyurethane sealant.
Photo: Jamie White © 2020



After drilling holes and squaring them off with a file, it was time to devise a jig to bend them. I decided to use silicon bronze carriage bolts, as the square holes in the bronze do not result in the same stress riser problems found in stainless steel.

Photo: Jamie White © 2020



Cut, filed, drilled, bent, and polished...ready for fitting on the hull.

Photo: Jamie White © 2020



Note the silicon bronze 3/16" thickness compared to the 1/8" thickness of stainless steel.

Photo: Jamie White © 2020

Continued From Page 41

widely used, it is prone to crevice corrosion when seawater seeps past bedding compounds and becomes stagnant on the metal, thus rendering it a poor choice for chainplates. When polished to a high gloss, 316L stainless will survive much longer.

The underlying moral of these stories is that stainless steel can fail without warning. "It looks good right up till it breaks" is a phrase I have often heard.

With *DULCINEA*'s old chainplates, not much inspection was needed as the cracks were very prominent. Even the ones that appeared intact and unaffected were suspect as they were the same age as the others. The decision I had to make was "what material to use" for the new chainplates.

If price is no object, the best chainplates are those fabricated out of Titanium or Monel, both very expensive alloys. I ruled out renewing them again in stainless and decided on Silicon Bronze alloy C65500 from [Atlas Metals](#). They had the perfect dimensioned flat bar at 3/16" x 1 1/2".

Overkill? Maybe. It was more than sufficient in size, especially when compared to its 1/8" x 1 1/2" stainless steel predecessor. Silicone Bronze is easily drilled, machined, and worked both cold and hot, which was a concern as they needed to be bent to follow the hull shape.

I like the way bronze works and ages - showing places of too much stress before they become problems. While the industry standard promotes stainless steel, bronze literally lasts forever. I made my chain plates from silicon bronze with a thicker cross-section to reduce the risk of cracks and sudden failures. An added benefit is the classic look of bronze on a traditionally-styled hull.

After drilling holes and squaring them off with a file, it was time to devise a jig to bend them. I decided to use silicon bronze carriage bolts, as the square holes in the bronze do not result in the same stress riser problems found in stainless steel.

The chainplates were cut, filed, drilled, bent, and polished and ready for fitting on the hull. The silicon bronze 3/16" thickness compared to the 1/8" thickness of stainless steel.

The hull liner carpet was partially removed when I took over stewardship of *DULCINEA* so it was simple to remove the rest of it to gain access to remove and then tighten the carriage bolts.

After cleaning up the faying surfaces of the hull liner to obtain a good watertight seal under the backing plate. Note the thick heavy fiberglass roving our Flickas were laid up with by Pacific Seacraft. Stout!

Portside chainplates and backing plates installed and bedded with 3M 4000 polyurethane sealant. I inspected the original stainless steel backing plates and found them in great condition. Since silicone bronze and stainless steel are close on the galvanic scale and this area is not subject to seawater, I decide to reuse them and not buy new ones in silicon bronze.

The completed chain plate installation showed the beauty of bronze!



Portside chainplate installed and bedded with 3M 4000 polyurethane sealant.
Photo: Jamie White © 2020



Replacing the chainplates at the dock.
Photo: Ruth Downes © 2020



The beauty of bronze chainplates on s/y *DULCINEA*.
Photo: Jamie White © 2020

By Jamie White

With the new bronze chainplates gleaming in the bright Texas sun, it was time to turn to the next task in getting *DULCINEA* sailing – renewal of all standing and running rigging and re-stepping the mast – advancing step by step closer to our eagerly awaited first sail!

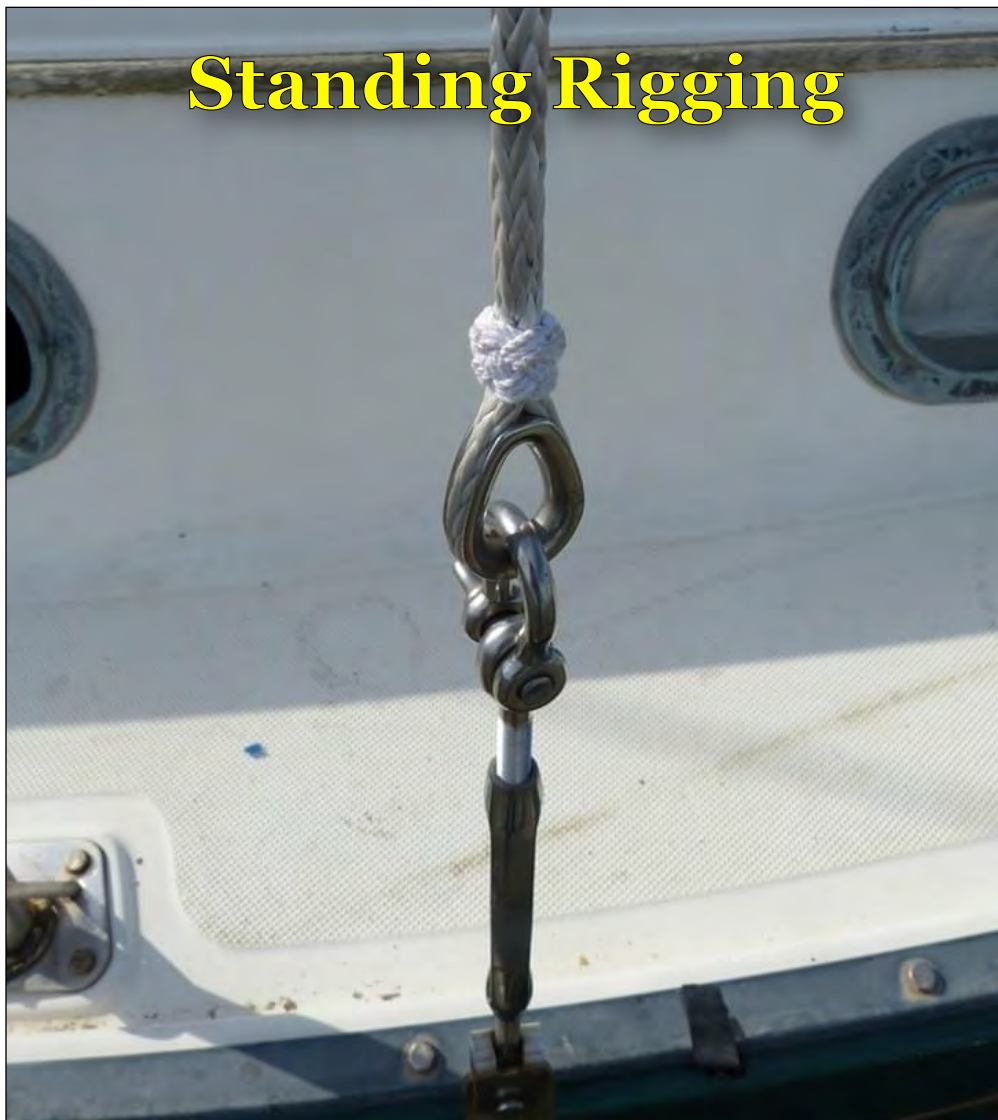
I will not spend much time writing about the renewal of *DULCINEA*'s double braid running rigging. It was a remarkably simple task of buying some New England Sta-Set or other double braid, then turning in some splices in double braid. There are many good sources on how to splice double braid, but this [video](#) is one of my favorites.

It is a simple yet elegant method that uses my favorite fids for splicing Dyneema and double braid - the Selma Splicing Fids Set.

With the renewal of the 1x19 stainless steel standing rigging, I had several choices. I could replace in-kind with stainless steel wire with roller or rotary swaged terminals, use galvanized wire rope with hand spliced eyes, or use one of the new formulations of Dyneema. I decided to use New England Ropes STS-HSR Heat-Set Dyneema for the standing rigging. There are several reasons I decided to switch from stainless steel 1x19 to Dyneema:

- Hairline cracks, corrosive pinholes, crevice corrosion and unseen hidden holes in addition to "regular" fatigue from work hardening are dangers with stainless steel.
- Swage terminal fittings on stainless steel rigging are not all created equal. If you run the swages through the dies too many times, the metal work-hardens and gets brittle. If not enough times, there are little "wings," and you wonder if it's pressed enough.
- Even rotary swaging has many hidden flaws due to operator error or inexperience.
- In contrast it is easy to see whether a splice in Dyneema was done right. You can see the length of bury and the taper by visual inspection. An improperly done splice is dead obvious in Dyneema.
- Using Dyneema, anyone with a fid and a bit of patience can rig their own boat without expensive and heavy equipment.
- The rig is lightened with Dyneema, which helps with vessel stability and riding characteristics.
- Dyneema does not corrode or work harden like stainless steel.

Standing Rigging



Plastic Rigging? Why knot!
The finished splices with a 4x3 Turks Head as an embellishment.
Photo: Jamie White © 2020



The Selma splicing fids set used on the Dyneema rigging of s/y *DULCINEA*.
Photo: Jamie White © 2020



New England Ropes STS-HSR Heat-Set Dyneema.
 Photo: Jamie White © 2020

- On average Dyneema is two to five times stronger in breaking strength, depending on diameter, than the stainless steel it is replacing.
- Unlike swages, mechanical fittings, and 1x19 stainless steel wire, all the splices and thimbles in Dyneema are inspectable, nothing is hidden.
- A duplicate rig or several extra-long pieces of standing rigging made of Dyneema can be easily coiled and stowed in the bilge.
- Dyneema has a nice feel against the hand when you are working your way forward and holding on to the shrouds.

What Is New England STS-HSR?

It is a synthetic rope made by New England Ropes of HMPE (high modulus polyethylene) fibers which are heat-treated, under tension, at temperatures above 212°F/100°C. This heat-treating imparts extra strength and all but eliminates the creep found in Spectra and other non-heat set Dyneema. The control of creep is something that has plagued HMPE fiber ropes. Creep is a characteristic of HMPE, in that the fiber is sensitive to long-term static loads and will elongate proportionally with time. [New England Ropes Heat Set Dyneema video.](#)

What Diameter Should I Use?

Stainless 1x19 wire is sized according to its breaking strength – after considering a boat’s righting moment and the forces exerted on its rig, plus a safety factor. With our Flickas, the naval architects and engineers calculated a 1x19 stainless steel wire diameter of 3/16” for shrouds and stays.

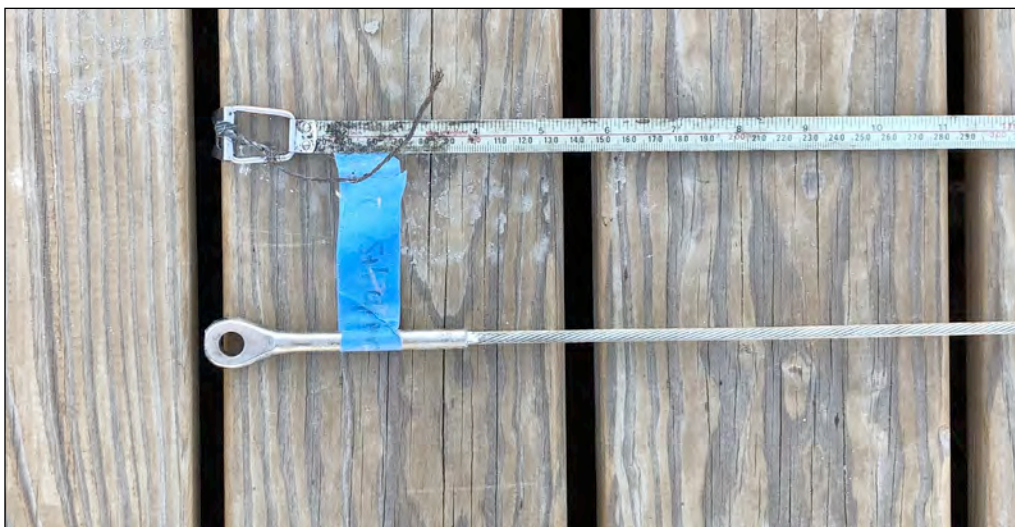
In contrast, Dyneema is not sized according to its breaking strength. Dyneema is sized in relationship to how much it stretches relative to similar stretch in 1x19 stainless steel wire. It is important to size the synthetic standing rigging to have the same or less stretch than the wire it is replacing.

Since NE STS HSR Dyneema should be sized based on similar stretch characteristics of stainless steel wire rather than breaking strength, I purchased 5 mm to replace the 3/16” diameter lower shrouds and backstay and 7 mm to replace the 3/16” cap shrouds and fore stay. For a stretch equivalent chart see [Colligo’s Web Page.](#)

- **Type 304 Stainless Steel Wires** - 3/16” Minimum Breaking Load (MBL): 4,700 lb.
- **NE STS HSR Dyneema** – 5 mm Minimum Breaking Load (MBL): 9,475 lb.



When measuring rigging, I ensure the turnbuckles are set at between 1/3 to 1/2 of their take-up.
 Photo: Jamie White © 2020



Measurements are taken from the bearing surface of the upper end swage (as in this photo) or the bearing surface of the clevis pin at the lower end turnbuckle toggle (previous photo).
 Photo: Jamie White © 2020

- **NE STS HSR Dyneema** – 7 mm
Minimum Breaking Load (MBL): 12,385 lb.

I decided to size up on the cap shrouds and jib stay as they take the most tension while under sail due to their long lever arm and the pull of the headsails. As you can see, the breaking strength of the Dyneema is substantially more than the 1x19 stainless wire. Flickas are built with 3/16" 1x19 stainless steel rigging with a minimum breaking strength of 4,700 lb.

Stretch is a function of the cross-sectional area. Since Dyneema is much stronger than stainless steel wire, some people have sized their Dyneema rigging based on breaking strength and not stretch and ended up with very elastic rigs that are hard to tune.

Choosing the diameter based on stretch will result in using larger diameter Dyneema than the existing stainless steel wire. Creep (unlike stretch, which is elastic) refers to the permanent elongation of the plastic fibers under load and over time.

Synthetic standing rigging creep will be reduced if it is under less static load. Keeping the static load (pre-tension not dynamic loading while sailing) of the synthetic standing rigging below 15% will keep creep down. If the load is less than 10% of the total strength of the Dyneema, creep will be significantly reduced almost to the point of elimination.

By using larger diameter heat-set Dyneema, creep is controlled or virtually eliminated. We should keep in mind that all materials creep, some more than others. Even stainless steel will creep over time, but in comparatively small amounts.

But It Is Made From Plastic

Can It Be Easily Damaged By Chafe?

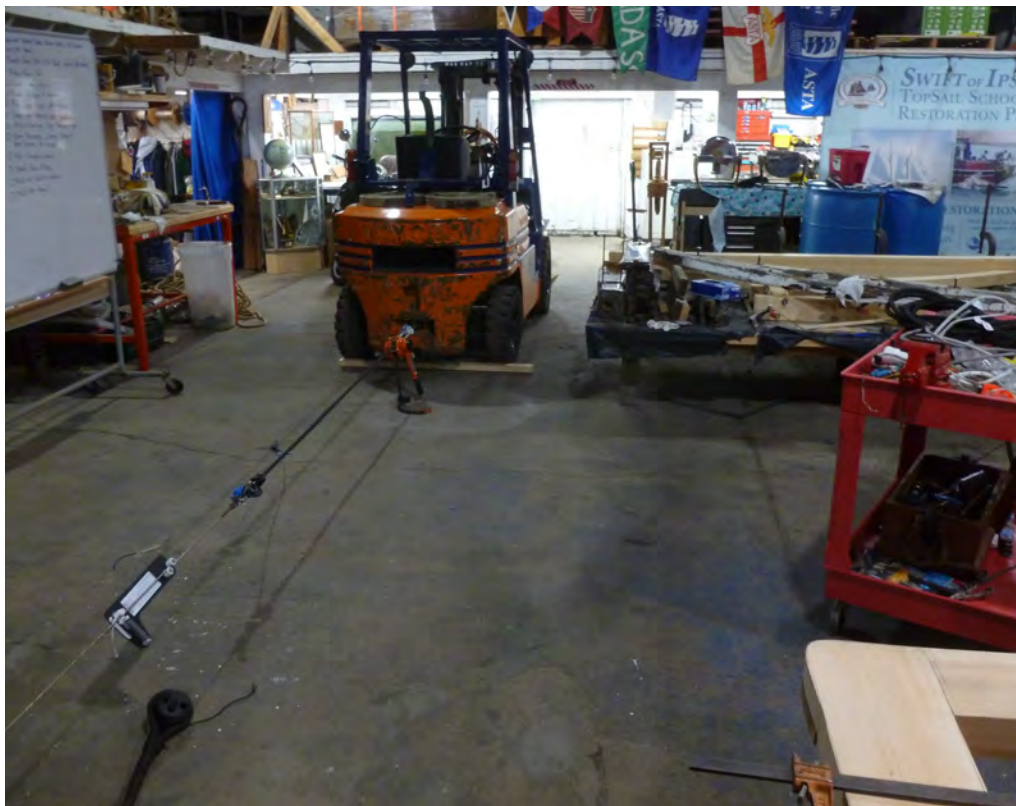
Because the line is sized for stretch not strength, you end up with shrouds that are usually double the strength of the wire they are replacing. So it takes a substantial amount of line loss to be dangerous. Depending on diameter, somewhere between 50 and 75% of the line would need to be cut through before the shrouds and stays are down to the same strength as the wire it replaced.

While it is possible to damage a shroud by abrasion, it would take a massive amount of negligence in not looking at the rig to be dangerous.

Determining Length of Stay or Shroud:

So how do we determine how long or how short to make our shroud or stay so that it fits?

I form an eye at one end, but before I splice it, I mark up from the bearing point on the eye or thimble four or six or eight or 10 feet and



When leading the rig restoration of the brig **SWIFT of IPSWICH**, I had access to a forklift as an anchor point and heavy chain-falls to pre-tension the splices for **DULCINEA's** rigging. Note the use of the Loos Gauge to measure the tension of the Dyneema.

Photo: Jamie White © 2020



The pre-tension the splices for **DULCINEA's** rigging was to almost 10% of minimum breaking strength to reset the braid.

Photo: Jamie White © 2020



Step A - The first pass of a locking Brummel splice. I like to leave the thimble just slack enough that it can later be removed for splicing the other end or for changing the thimble due to damage while in service.

Photo: Jamie White © 2020

make a mark. After I splice the end and pre-tension it, I remeasure from bearing point to the mark I made. That measurement tells me how much a splice will shorten a length of line.

With this information I can calculate how long to make the line so the final splice will be correct. Splicing upsets the weave and will need to be resettled by pre-tensioning it to between 5 and 10% of its breaking strength.

Splicing the diameter of the line along the length of the splice. It is a matter of simple physics - if the diameter increases, length will decrease; if the diameter is decreased, length will increase. With an accurate measurement after splicing and pre-tensioning to determine how much length was by splicing, I can then measure using the data from the first splice to calculate an accurate length for all remaining gear.

If after noting the length caused by splicing and using the locking Brummel method of initial tucks, your finished piece of rigging does not fit, you can resplice without the Brummel passes, using the long bury method with locking stitches. The Brummel pass-

throughs are **ONLY** to stabilize the splice against slipping when tension is relaxed – like slack leeward rigging.

You can splice just as well with the long bury method, stabilizing the splice with lock stitching. The strength of the splice lies not in the initial passes of a locking Brummel, but in the length and smooth taper of the bury.

If you use the long bury technique, I recommend using a contrasting color for the lock-stitches. If you need to pull the splice apart to lengthen or shorten the line, it is much easier to do if you can find the lock stitches.

Splicing the New Standing Rigging:

There are two classes of synthetic rope:

Class 1 (rope made from non-high modulus fibers Olefin, polyester, or nylon fibers), and

Class 2 (rope made from high modulus fibers Aramid, HMPE (high-modulus polyethylene), LCP (liquid crystal polymer), and PBO (Polybenzoxazole).

Dyneema is very slippery and is classified as 12-strand Class 2 rope; it relies on a long bury to securely hold the splice.

The typical recommended bury length for a Dyneema splice is anywhere from 52 to 75 times its diameter depending on who you talk to. I use 72 times the diameter.

This means that for the 5mm line for lower shrouds and backstay, I need to bury 360mm (14 inches) on each splice. And for the 7mm forestay and cap shrouds, I need to bury 504 mm (19 inches).

The key to all splicing is understanding how the line works and how splices work. Twelve strand Class 1 and 2 ropes are simply made of 12 strands woven in a tube. When you scrunch the rope together, the hollow center will open up. When splicing 12-strand single braid, the tail is passed through the hollow center and tapered. There is no fancy weaving involved because the 12 strands surrounding it will crush down on it like a Finger Trap toy when you try to pull it apart.

Dyneema experiences a negative linear thermal expansion coefficient in the direction of the fiber. This means that it stretches as it cools. Minor differences in temperature will not create an appreciable difference in length, leading to loss of tension, but more drastic differences will - for instance, tuning your rig in San Diego in the heat of the summer and then sailing in Puget Sound in the Autumn. Something to keep in mind.

The Splice:

Like most jobs aboard, you will need a few tools to ensure a good stout splice: measuring tape, marker pen, ceramic knife or scissors for cutting Dyneema, a tubular fid to match the diameter of the line, electrical tape or blue tape, and a small spike or awl.

There are several good videos online demonstrating how to perform the eye splice using the Brummel lock tuck or long bury method of splicing.

Dyneema Splicing Links

[Animated Knots - McDonald Brummel](#)

[Rigging Doctor - Mobius Brummel](#)

[Marlow D12 Locking Splice](#)

I will illustrate in photos some of the key steps. I will not go into to a detailed description, but instead will give some pointers in the photo comments showing the Dyneema eye splices used for **DULCINEA's** new rigging.

Returning to Galveston, I finished splicing and pre-tensioning the standing rigging before dressing and stepping the mast.



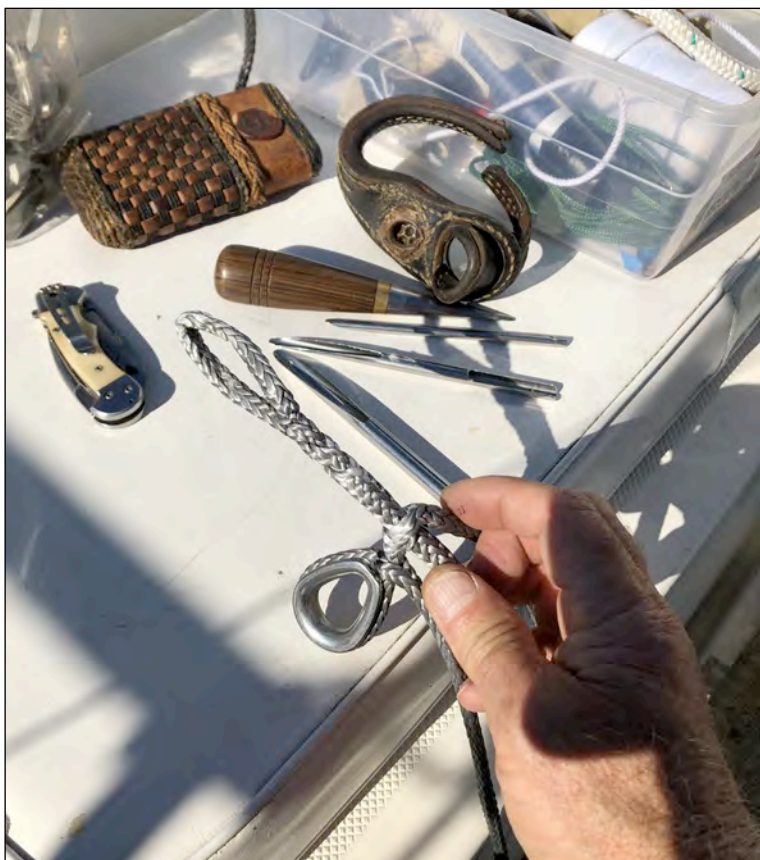
Step B - Second or locking pass. I like to enter about a fid width from the first pass. Note I am passing the already spliced eye (standing part) through the working end leg. To do this, I remove the thimble and squeeze the eye into the Selma fid so the spur on the fid grips the eye.

Photo: Jamie White © 2020



Step C - Note I am passing the already spliced eye (standing part) through the working end leg. To do this, I remove the thimble and squeeze the eye into the Selma fid so the spur on the fid grips the eye.

Photo: Jamie White © 2020



Step D - The standing part eye passed through the working end eye. Note the a splice has already been made in the opposite end of the line.

Photo: Jamie White © 2020



Step E - Complete locking Brummel tucks with the tail ready to be passed through the hollow core of the braid. Some riggers like to taper the tail at this point, but I prefer to taper it after passing it through the hollow body of the standing part

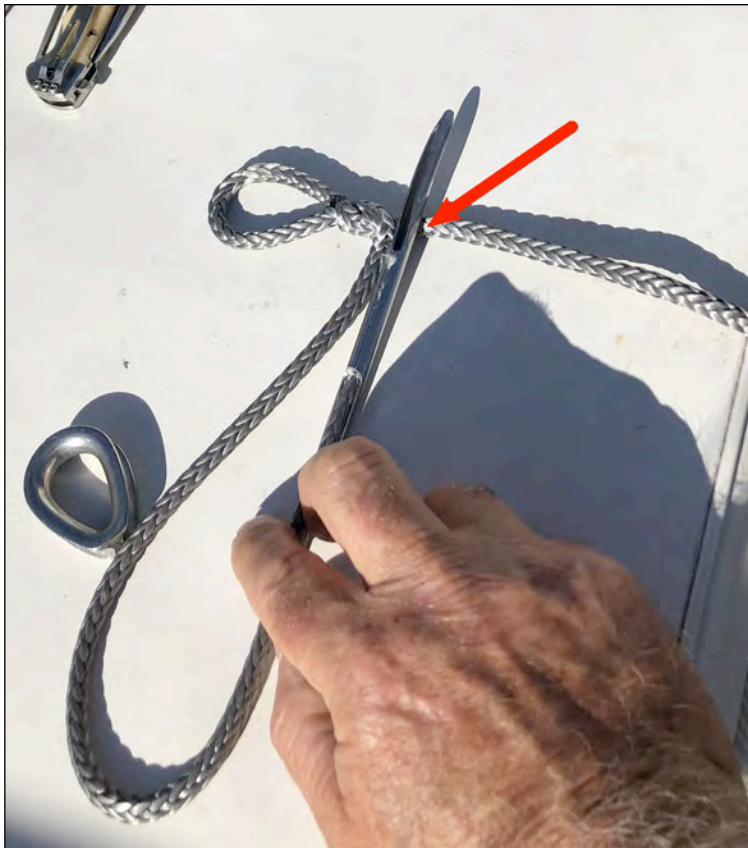
Photo: Jamie White © 2020



Step F - Before going further, I check to make sure the thimble fits into the eye and is able to be removed.
Photo: Jamie White © 2020



Step G - I determine where to exit the hollow body of the standing part one fid length from the end of the tucking strand.
Photo: Jamie White © 2020



Step H - The fid with the inserted working end enters the hollow of the standing part one fid width from the second pass of the locking Brummel.
Photo: Jamie White © 2020

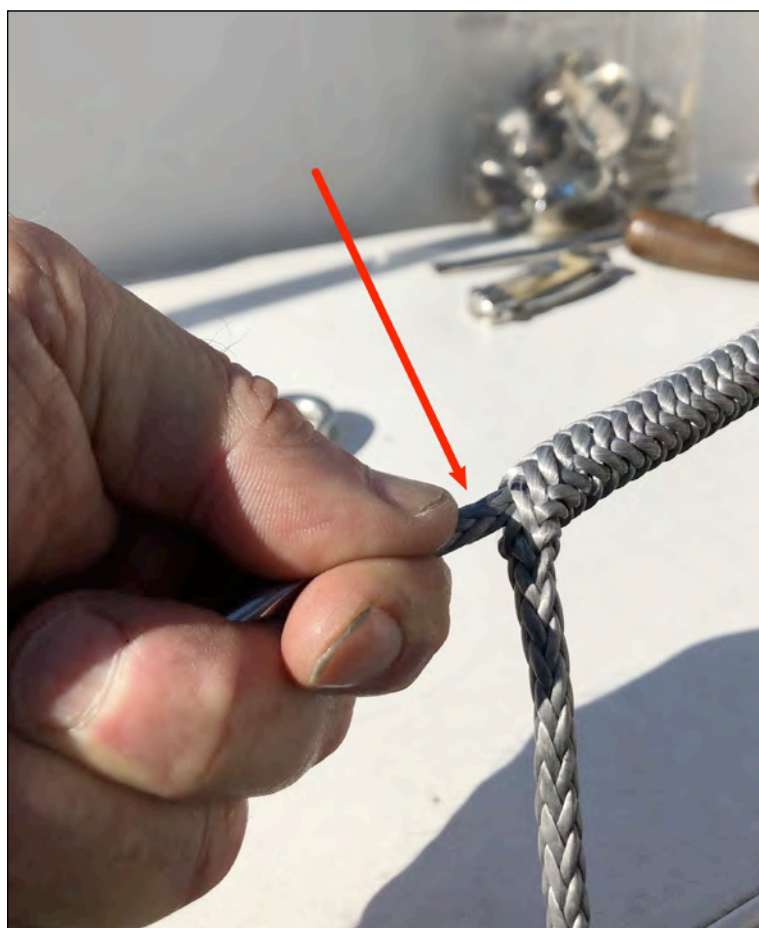


Step I - The fid entering the hollow core of the standing part. Pull just enough tail through to leave a small bight at the thimble.
Do not pull the tail tight just yet.
Photo: Jamie White © 2020



Step J - The fid exiting at the one and a half fid length mark.
Photo: Jamie White © 2020

Step K- The fid exiting at the one and a half fid length mark.
Photo: Jamie White © 2020



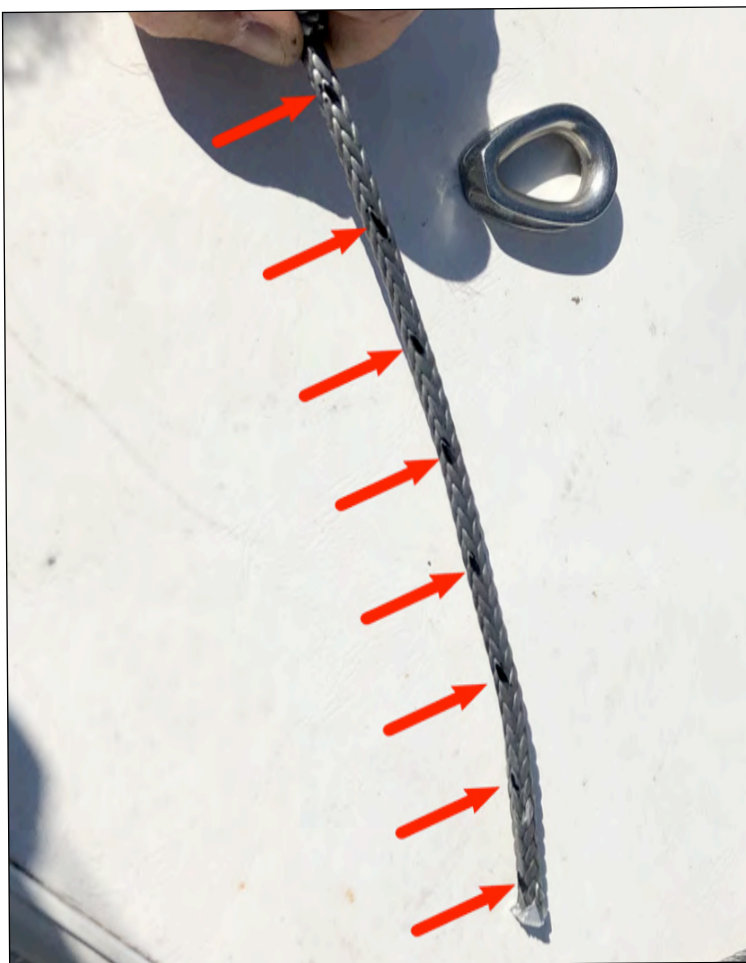
Step L - Pinch the Brummel cross over where the tail entered the body and only then pull the tail tight. Occasionally some gentle massaging of the pass through is necessary.
Photo: Jamie White © 2020

Step M - Pinch the Brummel cross over where the tail entered the body and only then pull the tail tight. Occasionally some gentle massaging of the pass through is necessary.
Photo: Jamie White © 2020



Step N - Slide the standing part cover down the tail until there is about 9" or about 1/3 of the tail exposed depending on line diameter. This 9" section will be tapered before being drawn back into the standing part braid. This taper will ensure that the splice tapers nicely into the standing part. A lump at the termination of the splice will cause a weakness in the finished splice.

Photo: Jamie White © 2020



Step O - I mark every fifth yarn which will be pulled out and cut off to form a gentle taper.

Photo: Jamie White © 2020



Step P - Trimming the pulled out yarns of the taper. I recommend a ceramic knife or serrated edge scissors designed to cut high-tech rope. I am using Ronstan splicing scissors from [West Marine](http://www.westmarine.com).

Photo: Jamie White © 2020



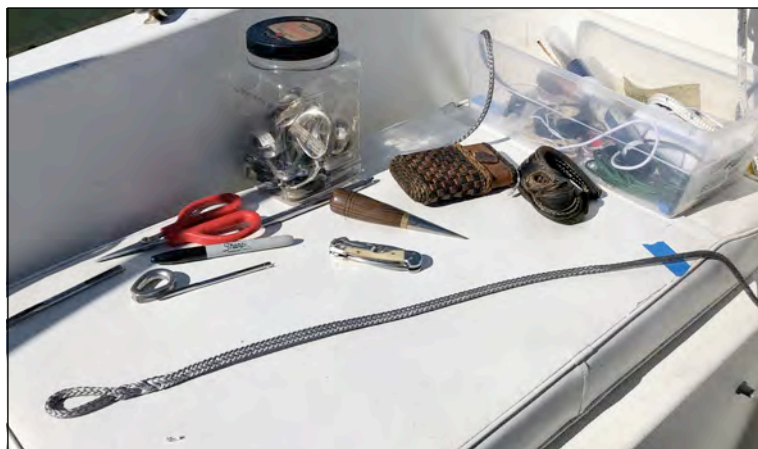
Step Q - Tail tapered and trimmed – ready to be milked back into body of standing part.

Photo: Jamie White © 2020



Step R - Hold the splice at the initial Brummel entry and milk the bunched up braid back over the tail. The tail will automatically disappear inside the standing during this operation.

Photo: Jamie White © 2020



Step S - Finished splice ready for thimble to be inserted.

Photo: Jamie White © 2020



Step T - Once inserted before being pre-tensioned using a come-a-long or cockpit sheet winches.

Photo: Jamie White © 2020



Step U - When heat stretched Dyneema is spliced, the braid is upset at the bury portion of the splice. This needs to be re-stretched to set the braid before you put it in service to avoid any elongation of the line after installation. I used the jib sheet winch in the cockpit to re-stretch the splices to good effect. Be sure to check that cleats and winches are soundly secured and backing plates are installed to prevent them from being wrenched out.

Photo: Jamie White © 2020



The finished splices with a 4x3 Turks Head as an embellishment.
Note – I will mouse all shackles and dog all turnbuckles after the rig settles in after the initial couple of sails.
Photo: Jamie White © 2020

Stepping the Mast & Boom



Detail of spreader boots and the new Dyneema rigging aboard s/y *DULCINEA*.

Photo: Jamie White © 2020

By Jamie White

Before stepping the newly painted mast, I added a new Windex wind indicator, VHF antennae to the masthead and steaming/fore deck light to the mast at the spreaders. The wiring for these new items was run through several foam pipe insulation jackets or “pool noodles” inside the mast secured by cable ties with the ends left long.

Leaving the tails long helps keep the wire/noodle arrangement centered in the mast. Hopefully, this treatment will deaden any slap caused by the wires banging against the inside of the mast. It makes for a much quieter night’s sleep.

Next the boom was stripped, repainted, and new running rigging was rove off through its length (clew outhaul and topping lift). One of the last tasks before stepping the mast was to address the broken spreader caps. After lowering the mast to go to boatyard, I discovered the spreader tips were severely fractured and instead of trying to source new ones (difficult on such an old mast), I used two-part marine epoxy filler to build up the spreader ends so the cap shrouds had a fair surface to be secured.

Rigging the Boom and Spreaders:

Both spreader end caps were broken. There was corrosion of the aluminum spreader ends so I decided to trim the last ½” off the spreaders and built it back up using two-part marine epoxy filler.

After filing a nock in the epoxy filler end cap, I glued on a piece of goatskin to prevent chafe on the new synthetic standing rigging.

With the mast dressed and ready to be stepped by my wife and me. I use blue tape as “rotten stops” to keep everything in place until the stick is upright in the tabernacle.

Using blue tape (or rotten cotton stoppers, as I have used when stepping masts on large square-riggers) prevents damage if a bight of rigging fouls on a mooring cleat, lifeline stanchion, etc.

Stepping a Mast:

When it becomes necessary to perform maintenance or, as in my case, refurbishment and modifications to the mast, the tabernacle mast step on the Flicka is a very handy item. Stepping a mast is merely an exercise in leverage, whether it is a 32,000-pound square-rigger mast, or a 60-pound Flicka mast.

As we know from Archimedes’ law of leverage, the use of a lever multiplies the effect of the force applied. By using the boom as a lever, we have a tremendous multiplier of force with a built-in block and tackle to further multiply our “handraulic” efforts.

But what if I have to lower the mast again? The method developed by Flicka’s designer, Bruce Bingham, as shown in his book “*The Sailor’s Sketchbook*”, is an elegant solution for getting your mast horizontal or vertical.

I have modified his version a little to make the operation more stable, so it can be done by one person without potential damage to the mast, your boat, or nearby boats.

Is it better to raise and lower the mast forward or aft? I prefer to land and raise the mast forward as this leaves the cockpit clear of gear.

I have struck and raised the mast with the masthead over the bow pulpit or stern pushpit by either using the boom as a gin pole or using the fore stay and a chain fall.

My wife Ruth was able to raise and lower the mast off the stern pulpit by herself, with me as photographer and coach.



Both spreader end caps were broken.
Photo: Jamie White © 2020



There was corrosion of the aluminum spreader ends
Photo: Jamie White © 2020



I decided to trim the last 1/2" off the spreaders and built it back up using two-part marine epoxy filler.
Photo: Jamie White © 2020



After filing a nock in the epoxy filler end cap, I glued on a piece of goatskin to prevent chafe on the new synthetic standing rigging.
Photo: Jamie White © 2020



Cutting out the goatskin leather spreader boots on *DULCINEA*'s galley table
Photo: Jamie White © 2020



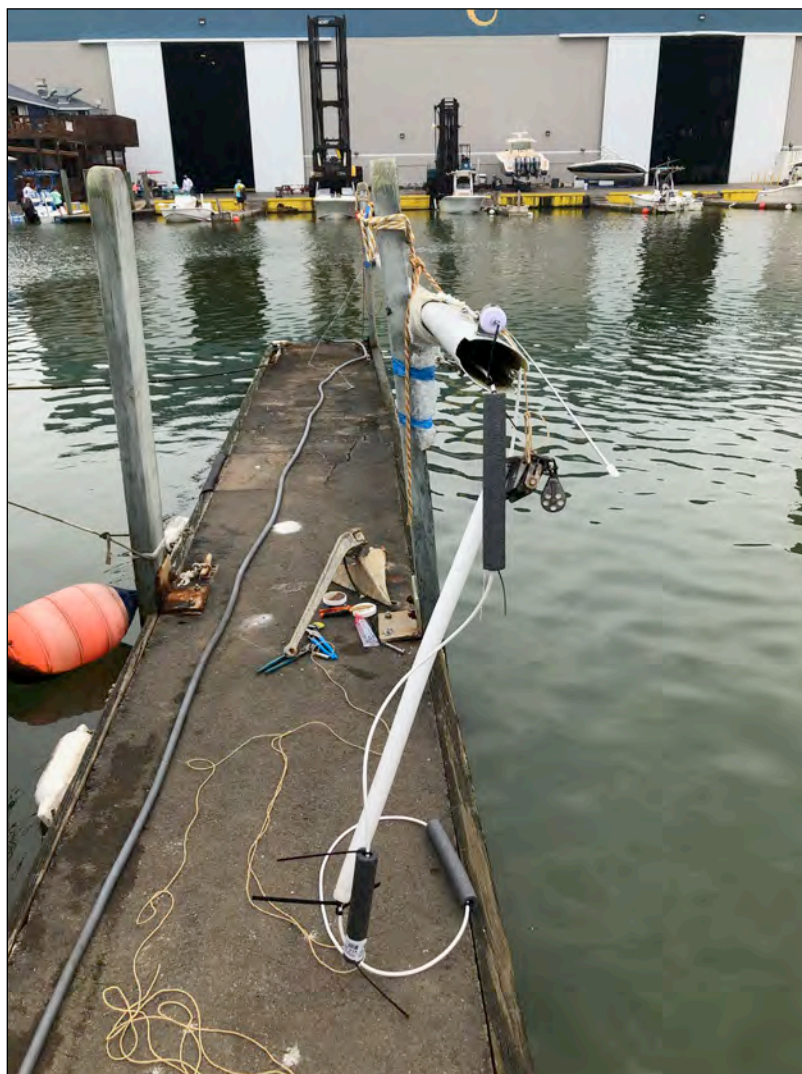
Stitching the cap boots in place.
Photo: Jamie White © 2020



Completed spreader cap boots in place.
Photo: Jamie White © 2020



VHF antennae cable with foam noodles and cable ties ready to be passed through the mast.
Photo: Jamie White © 2020



Passing the VHF cable through the mast
Photo: Jamie White © 2020



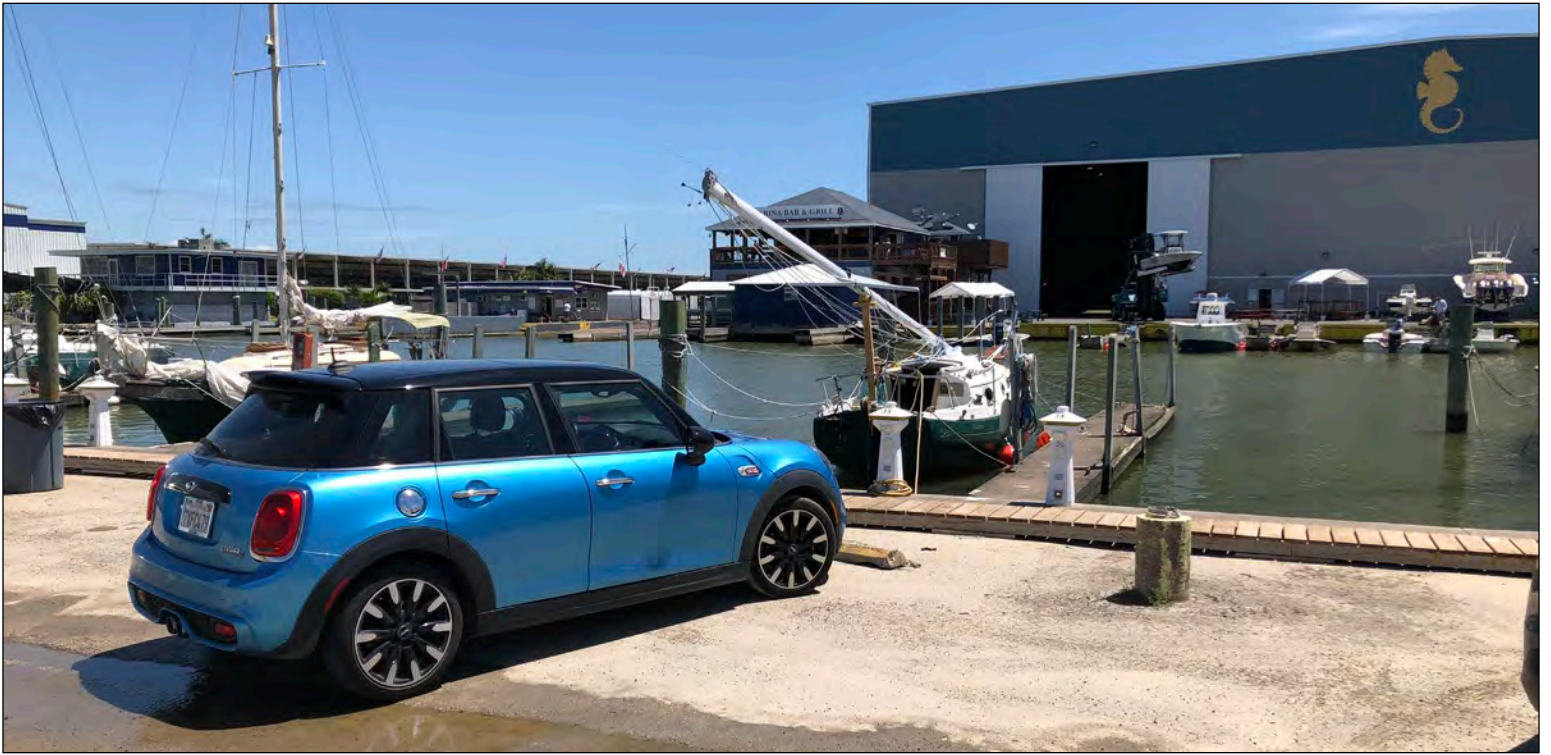
Adjusting the arms of the Windex.
Photo: Ruth Downes © 2020



Mast dressed and ready to moved aboard.
Photo: Jamie White © 2020



Mast ready to be stepped by my wife and me
Photo: Jamie White © 2020



The mast is in place on the deck and ready to be hoisted into place.

Photo: Jamie White © 2020



Preparing the mast and rigging for hoisting.

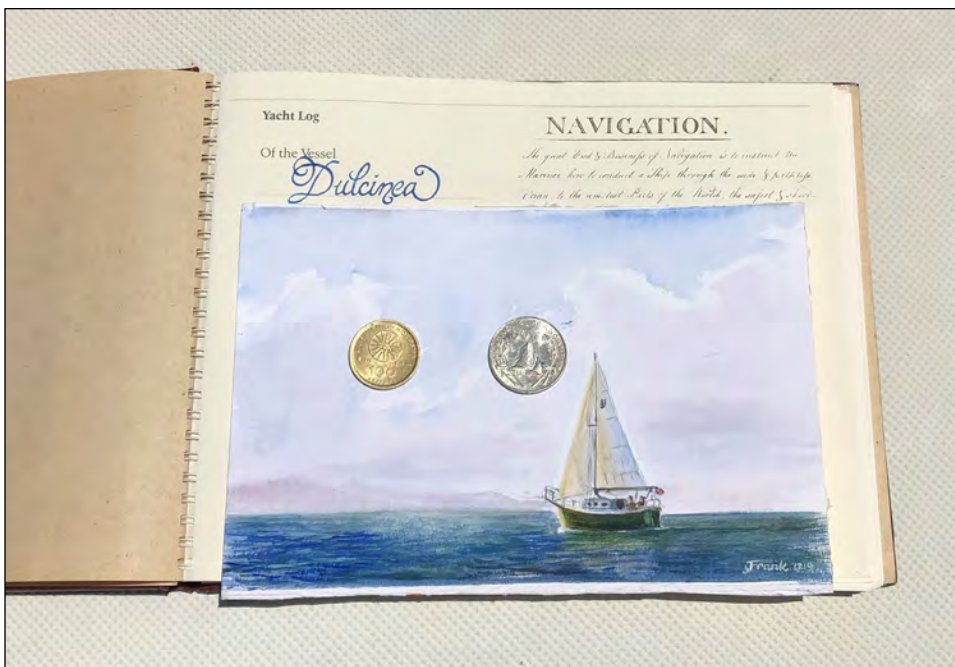
Photo: Jamie White © 2020



My wife Ruth raising and lowering the mast off the stern pulpit by herself, with me as photographer and coach.
Photo: Jamie White © 2020



The mast is getting close to vertical.
Photo: Jamie White © 2020



The two coins are a French Polynesian 50 Francs coin I picked up in Tahiti while sailing on the *HMAV BOUNTY*, and the other is a 100 Drachma coin gifted to us by a friend for this purpose.
Photo: Jamie White © 2020



Don't forget the coins!
Photo: Jamie White © 2020



Mast stepped with new running and standing rigging.
Photo: Jamie White © 2020

Raising The Mast



Mast resting on the bow pulpit.

Photo: Jamie White © 2020

Here is how I lower and raise **DULCINEA's** mast by myself or with help:

1. You do not need to remove the mainsail.
2. Permanently mount a pad eye to the port and starboard sides of the mast about 7' above the tabernacle. This padeye will be a belaying point for lateral mast guys in addition to using the cap shrouds as illustrated in Bruce Bingham's method. You need to have this padeye high enough to supply support to the lower mast, yet be able to easily cast off the stabilizing guys at the completion of the mast lowering or raising evolution. Using the padeye mast guys as stabilizing lines prevents the mast from swaying too much, even in a breeze, and allows you to lower or raise the mast forward onto the pulpit or aft on to the pushpit.
3. Using a dowel or straight edge, span across the beam from the mast heel bolt to the cap shroud and put a piece of electrical tape on the cap shroud. With this mark, you have now extended the plane of the heel bolt outboard where a ring or thimble bridle will be rigged.
4. Slack away and cast off the forward and aft lower shroud turnbuckles to free up the chain plate eye. Leave the cap shroud attached to its turnbuckle, as it is the upper lateral guy in this mast evolution. The bridle is bent on or shackled to the forward and aft lower shroud chain plate eye.
5. Rig a stabilizing lateral guy from the eye of the bridle to the padeye on the mast. Make sure this guy is tight. I like to use small diameter Dyneema since it does not stretch. If Dyneema is not available, use polyester double braid – never nylon or polypropylene as they stretch far too much to supply adequate control of athwartship sway.
6. Fit a bail on the boom in the position noted in Bruce's book, showing how he set up the mainsheet arrangement on his Flicka **SABRINA**. (I plan on re-rigging **DULCINEA's** mainsheet to utilize this mid boom bail – an added benefit!). Rig your boom stabilizing guys from this mid boom bail instead of from the end of the boom forward to the bridle (next to the mast padeye lateral guys). This is a much better staying angle and helps with controlling the mast in windy conditions.
7. Reeve off the mainsheet down to one sheave to give you ample cordage length when lowering the mast. When raising the mast, I led the reeve~~d~~ off mainsheet to one of the jib winches to give enough purchase to raise the mast.
8. I have a jib downhaul line permanently rigged and rig it to the fore stay a couple of feet above the turnbuckle to help pull the mast forward until gravity does its magic.
9. I use blue tape to nipper off the halyards and disconnected lower shrouds to the mast when lowering the mast. When raising the mast, I use blue tape to secure the lower shrouds and stays until the mast reaches a height where the tape tears

away, releasing the secured gear. This helps keep things a bit more orderly.

10. Place a cushion or a pad in the pulpit or pushpit to cushion the lowered mast.
11. Now stop...take a look around the boat and make sure all the gear is ready to run or is secured to prevent fouling. Make sure the topping lift is secured and there is tension on the mainsheet. If your topping lift is not stout enough, use the main halyard to support the boom. Cast off the backstay and bring it forward to tape off at the mast.
12. Make sure the mast tabernacle heel bolt is not clamped too tight – it needs to have a little play to allow it to first shift up in its slot before the heel kicks free of the tabernacle.
13. Now take a final look and throw a little slack into the mainsheet while hauling away on the jib downhaul to start the mast downward. It may require a bit of a tug, but do not overdo it. Always have control of the tension in your mainsheet and downhaul.
14. Slack away the mainsheet while hauling on the downhaul until the mast reaches its tipping point, then control its descent with the mainsheet. Control the rate of descent with the mainsheet tackle, keeping your eye on the mast as you slowly lower it into the pulpit. If you have a helper, one of you should work from the cockpit and the other from the foredeck to help guide the mast to rest. If you have set up everything correctly, the mast will gently drop straight into the pulpit. Now you have the mast at a level where you can work on it safely.
15. To raise the mast, simply reverse the process. Slack away the jib downhaul while hauling away on the mainsheet tackle, keeping an eye on the gear lashed to the mast to make sure they do not bind up or get caught on the foredeck cleat or other protuberances. Once the bridle and guy system is rigged and fine-tuned, the mast goes up and down surprisingly easily. This system can be used to lower the mast to pass under bridges as the mast can be left in the down position while the boat is under power in calm water. For more information on the Bruce Bingham bridle system, see: “The Sailors Sketchbook” by Bruce Bingham (McGraw-Hill, 1983).

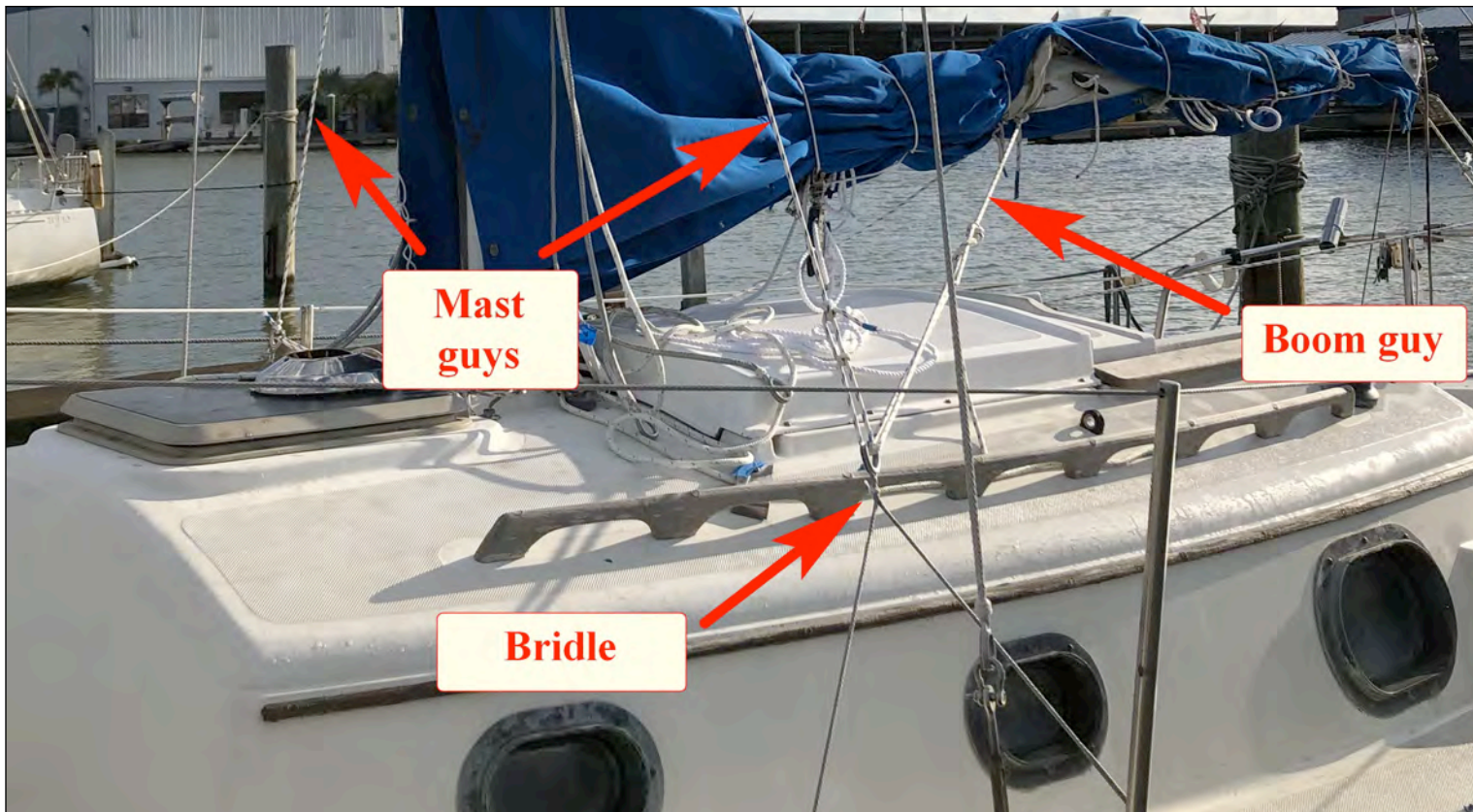
Whichever method you use – do not forget the coins! Being a traditional sailor and rigger, I made sure we had coins to place under the mast for good luck and to pay Charon the boatman for passage across the river Styx.... hopefully, we will not require his services anytime soon! The two coins are a French Polynesian 50 Francs coin I picked up in Tahiti while sailing on the *HMAV BOUNTY* and the other is a 100 Drachma coin gifted to us by a friend for this purpose.

Click on this link for a short video showing me raise the mast singlehanded and under control:

[Raising the Mast of s/y *DULCINEA*](#)



Jib downhaul bent on to jib stay.
 Photo: Jamie White © 2020



Bruce Bingham's main sheet mid-boom bail modification blends well with using mid-boom stabilizing guys instead of rigging the guys at the end of the boom.

Photo: Jamie White © 2020

Sea Trial for s/y *DULCINEA*



DULCINEA ready for her sea trial in Galveston Bay.
 Photo: Jamie White © 2020

By Jamie White

In the morning of May 21, 2020, Ruth Downes and I took our Flicka 20 sailboat *DULCINEA* out for her first sea trial after her extensive hull restoration and complete standing and running rigging renewals.

I am very pleased with how easily she balances in light and fresh breezes. I was happy my California Republic pennant arrived in time for this event.

Before departure, I rigged an abalone shell talisman, polished by the Pacific, that I found walking the coast north of San Francisco.

After setting all plain sail, I poured a libation of rum to Neptune and sprinkled the mainsail with a tot of rum to seek good passage during our time aboard her now and in the future. Then I shared the tot of rum with my lovely wife, Ruth. We were delighted when a group of dolphins escorted us down the Galveston ship channel.

She swims well... long may she sail.

I have been restoring and sailing historic and replica small and large square-rigged ships since the early 1980s and have enjoyed the time spent returning *DULCINEA* back to sailing trim.

The Flicka 20 has cast its magic upon scores of sailors since Bruce Bingham first transformed his dream onto a blueprint and then into reality.



Hoisting my California Republic pennant and Flicka 20 burgee aboard s/y *DULCINEA*.
Photo: Ruth Downes © 2020



Ruth giving her seal of approval for a successful restoration.
Photo: Jamie White © 2020



Ruth communing with dolphins.
Photo: Jamie White © 2020



A dolphin salute for the sea trial of our “new” Flicka 20.
Photo: Jamie White © 2020



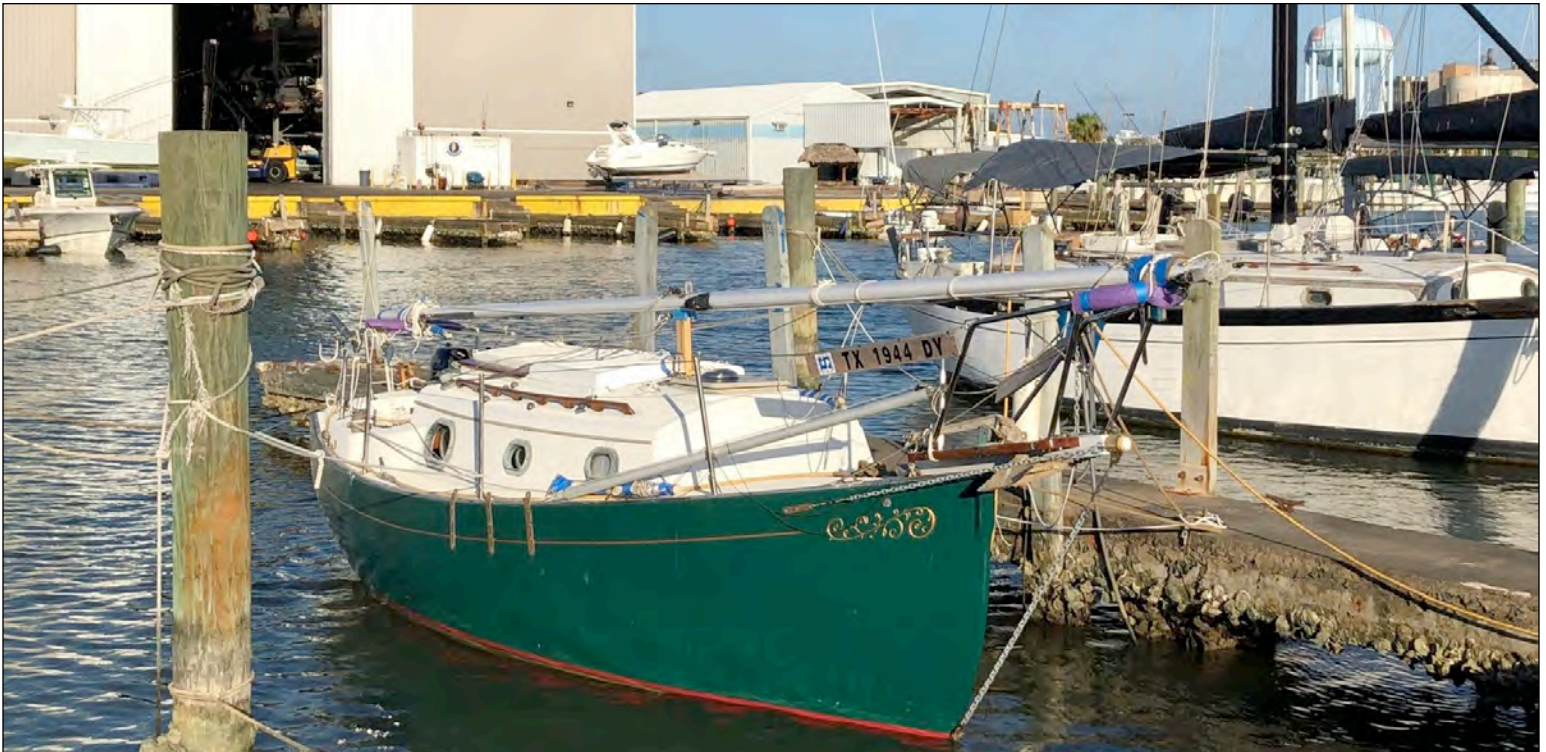
DULCINEA back safely in her berth... until next time.
Photo: Jamie White © 2020



Taping the teak for refinishing.
Photo: Jamie White © 2020



The teak is looking much better.
Photo: Jamie White © 2020



DULCINEA at the dock ready for a westward passage to California.
Photo: Jamie White © 2020

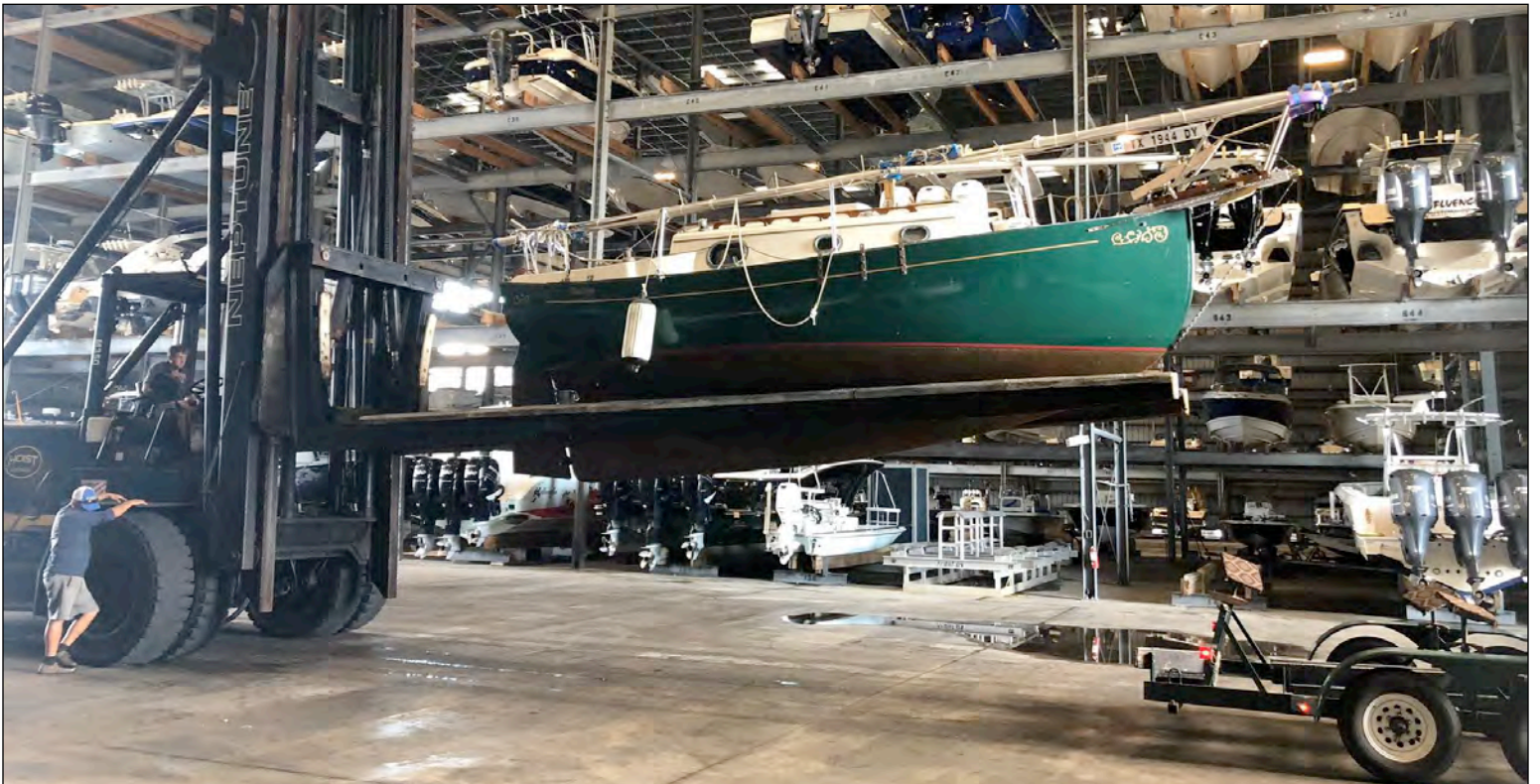
A Westward Passage



The trailer extension allows the trailer to get under s/y *DULCINEA* for loading.
Photo: Jamie White © 2020



Lifting *DULCINEA* to attempt loading onto a Triad Trailer.
Photo: Jamie White © 2020



Approaching the trailer.
Photo: Jamie White © 2020



Placing the Flicka onto the trailer wasn't possible.
Photo: Jamie White © 2020



Back into the water for a more traditional use of a trailer.
Photo: Jamie White © 2020



Ready for moving over to the launch ramp for loading onto the Triad Trailer.
Photo: Jamie White © 2020



Tuning the Triad trailer to **DULCINEA** for the road trip to California.
Photo: Jamie White © 2020



DULCINEA is ready for the road and a 2,135 mile passage west from Texas to California.
Leaving the threat of hurricanes and heading west to the threat of wildland fires.
Photo: Jamie White © 2020



DULCINEA is ready for a day on the water along the Texas Gulf Coast.
Soon, she will be sailing on the waters of San Francisco Bay.
Photo: Ruth Downes © 2020

“It is Born”

*Here I came to the very edge where nothing at all needs saying,
everything is absorbed through weather and the sea, and
the moon swam back, its rays all silvered, and
time and again the darkness would be broken by the crash of a wave, and
every day on the balcony of the sea, wings open, fire is born,
everything is blue again like morning.*

Pablo Neruda

