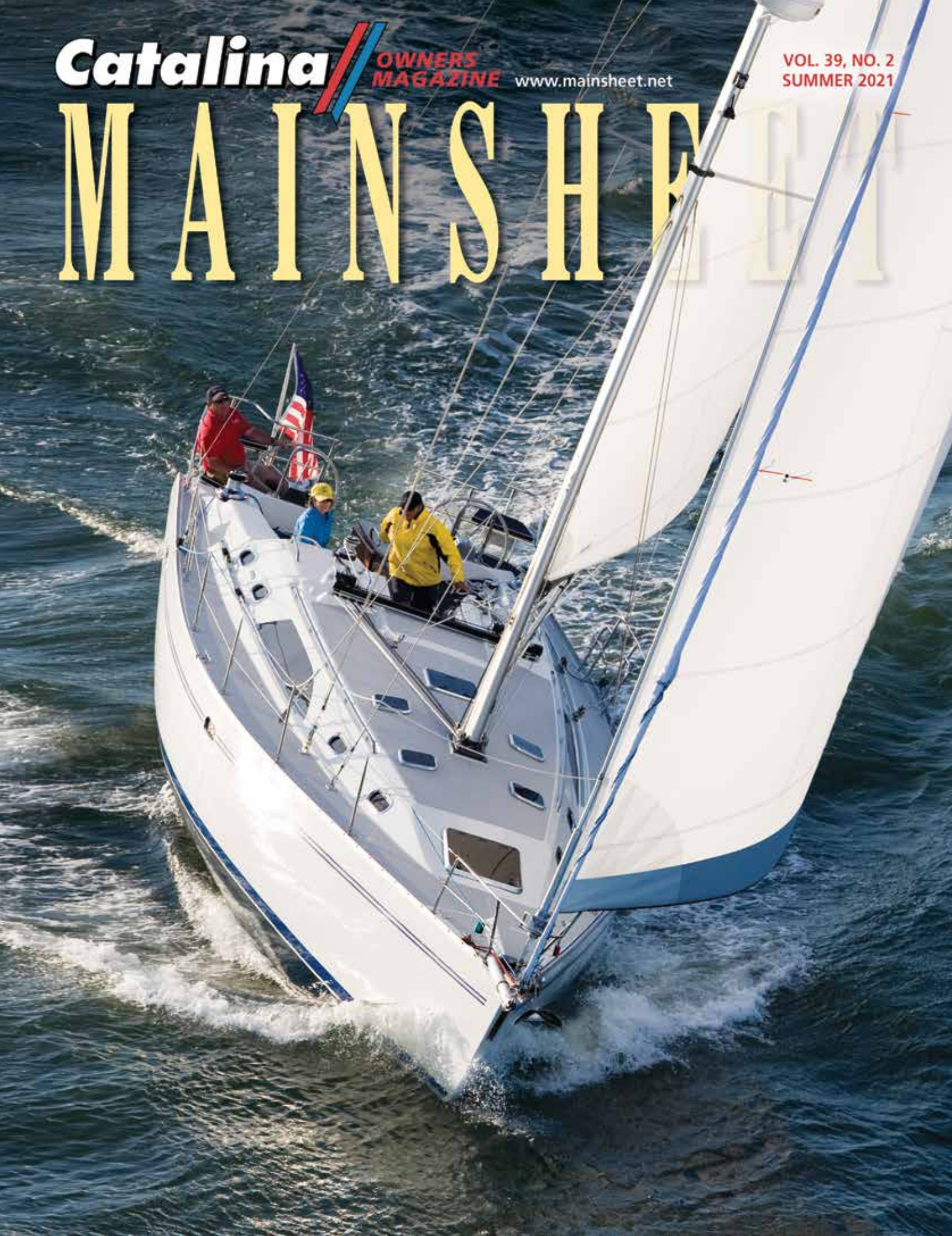
Catalina OWNERS MAGAZINE www.mainsheet.net

VOL. 39, NO. 2
SUMMER 2021

MAINSHEET



SCHAEFER
LEGENDARY STRENGTH

The Best of Both Worlds

Schaefer's Patented articulating mast track enables you to reef or furl on any point of sail from the safety of the cockpit. Enjoy a fully battened sail that doesn't compromise performance for safety. The Best of Both Worlds!

Learn More from Our Video Gallery
@ SchaeferMarine.com

The perfect alignment between the articulating Luff Track and gooseneck is made possible by our computer machined aft furling drum. Machining details allow us to place Torlon™ ball bearings in each end fitting reducing friction.

Details make the difference. Machining our goosenecks from 6061-T6 aluminum ensure strength and reliability for years of trouble free service.

SCHAEFER
LEGENDARY STRENGTH

508.995.9511 SCHAEFERMARINE.COM

6

10

20

MAINSHEET

SUMMER 2021

Volume 39 • Number 2

COLUMNS:

FEATURES:

TECH NOTES:

ASSOCIATION NEWS:

Mainsheet magazine is also available as a password-protected digital download in PDF format. Download this issue today!

WWW.MAINSHEET.NET

Summer 2021 • Password: S392

EDITORIAL:

CATALINA MAINSHEET (ISSN 1527-9073) is published quarterly by Eagle LTD. 3504 Amberley Trail, Evans, GA 30809. Periodical postage paid at Evans, GA 30809, and additional offices.

Publisher
Jim Holder
3504 Amberley Trail
Evans, GA 30809
Phone (706) 951-4282
Fax (706) 651-0533
cv.jholder@mainsheet.net

Editor
Carol VandenBerg
3504 Amberley Trail
Evans, GA 30809
Phone (706) 951-4282
Fax (706) 651-0533
carol@mainsheet.net

Technical Material Approved by Catalina Yachts

Technical articles published herein are the advice and opinion of the individual author solely. Catalina Yachts, Catalina Mainsheet and/or the National Associations are not liable or responsible in any way for their contents or consequence.

SUBSCRIPTION INFORMATION:

SUBSCRIPTION to Catalina Mainsheet is available through payment of your Association dues.
See page 4 for details.

MOVING?

POSTMASTER:
Send address changes to Catalina Mainsheet, 3504 Amberley Trail Evans, GA 30809

SUBSCRIBERS:
Send address changes to your association.
See page 4 for addresses.

ADVERTISING:

To reserve advertising space contact
Jim Holder
3504 Amberley Trail
Evans, GA 30809
Phone (706) 951-4282
Fax (706) 651-0533
cv.jholder@mainsheet.net

Advertisement of items in Catalina Mainsheet does not imply endorsement by National Associations.

PRODUCTION:

landisproductions LLC

1911 Huguenot Road
Suite 301
Richmond, VA 23235
(804) 897-0495 phone

email:
david@landisproductions.com
website:
www.landisproductions.com

Share Your Stories with Us!

***Mainsheet* is the official magazine of Catalina Yachts sailboat owners — read by thousands around the world.**
To submit association news or tech notes for publication in *Mainsheet* magazine, contact the appropriate association officer for your boat size listed below. Your article might be selected as a main feature or an editorial column, so please consider including a few beautiful photos to accompany your text!

SUBMISSION DEADLINE DATES TO YOUR ASSOCIATION:
March 1st, June 1st, September 1st and December 1st.

International All Catalina Alliance
Association News & Tech Notes: Donna Ferron, 484-678-4592, donnarferron@verizon.net

Catalina 470 National Association • www.catalina470.org
Association News: Julie Olson, (650) 347-3589, voyagerC470@yahoo.com
Tech Notes: Joe Rocchio, jjr@onward.ws

Catalina Morgan 440 National Association • http://catalina440.org
Association News: Jessie Mackelprang-Carter, sv.theredthread@gmail.com
Tech Notes: Mike Simpson, mike@threesheetssailing.com

Catalina 42/425 National Association • www.catalina42.org
Association News: Ken Fischer, 503-473-7252, catalina42@mac.com
Tech Notes: Position Open

Catalina 400/445 Int'l Association • www.catalina400-445.org
Association News: Martha and Dan Bliss, 717-676-7635 (cell), sailbrunelle@gmail.com
Tech Notes C400 Hulls: Tom Sokoloski, 860-659-3880, tomsoko@gmail.com
C445 Hulls: Position Open

Catalina 380/385/387/390 Int'l Association • www.catalina380.org
Association News: Kathy Ahillen, kahillen@comcast.net
Tech Notes C380, C390 Hulls: Todd Gaier, tgsail1@earthlink.net
C387 Hulls: Tom Brantigan, tombrantigan@gmail.com
C385 Hulls: Chuck Couture, Clcouture@ymail.com

Catalina 38 International Association • www.catalina38.org
Association News: Chuck Finn, (518) 226-0584, charles@finn.ws
Tech Notes: Position Open

Catalina 36/375 International Association • www.c36ia.com
Association News: Lauren Nicholson, lauren@nicholsonmarine.com
Tech Notes C36 Pre Mk II Hulls: Leslie Troyer, leslie@e-troyer.com
C36 Mk II Hulls: Chic Lasser, chiclasser1@yahoo.com
C375 Hulls: Position Open

Catalina 350 International Association • www.catalina350.com
Association News: George Thor, (585) 794-3108, outlander.35@outlook.com
Tech Notes: Scott Monroe, scott_monroe@verizon.net

WWW.MAINSHEET.NET

ABOUT OUR COVER:

Sailing San Francisco Bay on a Catalina 445.

Photo by Billy Black

Catalina 34/355 International Association • www.c34.org
Association News: Jack Hutteball (Fleet 5), jhutteball@comcast.net
Tech Notes: John Nixon, c34hull728@gmail.com
(Associate Technical Editor): Ron Hill (Fleet 12), ronphylhill@comcast.net

Catalina 320 International Association • www.catalina320.com
Association News: Mark Cole, 253-446-9003, boatnboot@me.com
Tech Notes: Jason Reynolds, jereyns@hotmail.com

Catalina 310/315 International Association • www.catalina310.org
Association News: Gary Hattan, 678-756-9929, gfhattan@gmail.com
Tech Notes: Jesse Krawiec, jessek65@gmail.com

Catalina 30/309 International Association • www.catalina30.com
Association News & Tech Notes: Michael Dupin, dupin.catalina30@yahoo.com

Catalina 28 International Association • www.catalina28.net
Association News: Position Open
Tech Notes: Ken Cox, kenneth_cox@sbcglobal.net

Catalina 27/270 • Now part of International All Catalina Alliance

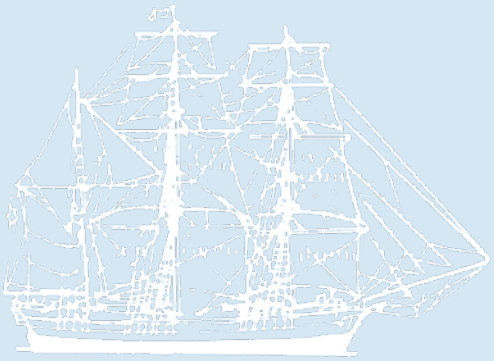
Catalina 26 National Association • www.members.tripod.com/capri26
Association News: Position Open
Tech Notes: Position Open

C25/250 & Capri 25 Int'l Association • www.catalina-capri-25s.org
Association News: Brian Gleissner, mainsheet@catalina-capri-25s.org
Tech Notes C25 Hulls: Seth Martin, seth.martin@mac.com
C250 Hulls: David Gonsalves, catalina250tech@catalina-capri-25s.org
Capri 25 Hulls: Position Open

Catalina 22 National Association • www.catalina22.org
Association News: Rich Fox, 317-815-8599, rich_fox@yahoo.com

Catalina 15 National Association
Association News: c/o Mainsheet, cv.jholder@mainsheet.net

Visit the association's websites for full lists of association officers.



EDITOR'S BARQUE

Connection

Sailing means many different things to people. It is possibly the most complex and widest reaching of any sport or pastime. One might like the big boat adventure of cruising over vast oceans, or racing small dinghies around the buoys, maybe just a quiet trip across the lake. Or maybe one might prefer just being tied up at the dock to bask in the warm sun with a cool beverage. No matter your preference, it's all about you and the water.

One of sailing's most interesting aspects is the help everyone is so willing to share about how to improve racing skills or a new tech update on your boat. Ask and you will get plenty of ideas and help. This camaraderie makes sailing a community, almost like family. The thread that binds.

We are experiencing many changes in life itself these days, but one thing remains the same... the love of the water. It could be fresh or salt, ocean, lake or river. Add in some wind, blue sky, mild temperature and let's go have fun.

Read *Mainsheet* and share your thoughts and ideas. See you on the water.

–Jim Holder, Publisher

Membership has its benefits!

Join an Association or Renew Your Membership

Association members enjoy a wealth of benefits to make the most of your sailboat purchase, including a subscription to *Mainsheet* magazine!

Associations are designed to enhance the enjoyment of owning a Catalina in a number of ways. They are composed of members worldwide who are all committed to Catalina sailboats and seek the camaraderie and support of like-minded individuals. Members include racers, cruisers, weekenders, hobbyists, and all manner of Catalina sailors. In areas where many Association members live near each other, Associations often help facilitate local fleets, whose local participants support one-another and encourage participation in local events and activities. Visit your boat's Association website today to learn more!

Contact your association directly to join an association or to renew your membership. If you are paying by check, make it payable to your Association.

Catalina 470
www.catalina470.org
Catalina 470
c/o PO Box 4003
Roanoke, VA 24015
Annual Dues: $25 (US Funds)

Catalina Morgan 440
Catalinamorgan440@gmail.com
John McElderry
20660 Hope Spring Terrace
Unit 406
Ashburn, VA 20147
Annual Dues: $30

Catalina 42/425
www.catalina42.org
Catalina 42
c/o PO Box 4003
Roanoke, VA 24015
Catalina 42 Annual Dues: $25
Two years: $45 US
Three years: $65 US
Catalina 425 Annual Dues: $30
Two years: $50 US
Three years: $80 US
(US Funds)

Catalina 400/445
www.catalina400-445.org
Catalina 400/445
c/o PO Box 4003
Roanoke, VA 24015
Annual Dues: $25

Catalina 38
www.catalina38.org
Bob Kirby
Annual Dues: Mail $25.00;
Credit Card $26.00
(415) 265-6618

Catalina 380/385/387/390
www.catalina380.org
Bob Goldman
98 Rockledge Drive
Pelham Manor, NY 10803
Annual Dues: $25
Two years: $48
Outside US: $35 (US funds)
Outside US two years: $68
(US funds)

Catalina 36/375
www.C36IA.com
www.Catalina36.org/about/member
Membership
Cyndi Van Herpe
membership@catalina36.com
6008 Abington Park Drive
Glen Allen, VA 23059
Annual Dues: $35
Three Years (includes CD): $95
Supporting Member
(no Mainsheet): $25

Catalina 350
www.catalina350.com
Neville Edenborough
Catalina 350IA
c/o PO Box 874
Niceville, FL 32588
Annual Dues $25

Catalina 34/355
www.c34.org
Stu Jackson
925 Cherry Point Road
Cowichan Bay, BC, Canada
V0R 1N2
Annual Dues: $25
Two years: $45

Catalina 320
www.catalina320.com
Bill Culbertson
2919 Ward Court
Ann Arbor, MI 48108
Annual Dues: $30

Catalina 310/315
www.catalina310.org
Curt Sawyer
287 E. Highland Ave.
Atlantic Highlands, NJ 07716
Annual Dues: $24
All Others: $28 (U.S. Funds)

IC30A/309
www.catalina30.com
IC30A
c/o PO Box 4003
Roanoke, VA 24015
Annual Dues: $30 US / $35 Other
Two Years: $55 US / $65 Other
Associate Member/
No Mainsheet: $15 US

Catalina 28
www.catalina28.net
Catalina 28
c/o 1075 Klem Road
Webster, NY 14580
Annual Dues: $20
Canada/Mexico $24 (US Funds)
All others $27 (US Funds)

Catalina 27/270
International All Catalina Alliance
PO Box 9207
Fayetteville, AR 72703
Annual Dues: $25

Catalina 26
www.members.tripod.com/capri26
Mark Shockey
10513 Wallingsford Circle
Dayton, OH 45458
Annual Dues: $26
All others: $26 (US funds)

Catalina 25/250 & Capri 25
www.catalina-capri-25s.org
Catalina 25/250 & Capri 25
c/o PO Box 4003
Roanoke, VA 24015
Annual Dues: $22
All others: $28 (US funds)

Catalina 22
www.catalina22.org
Dora McGee
3790 Post Gate Drive
Cumming, GA 30040
Annual Dues: $39.00
Associate Member/
No Mainsheet Dues $25.00

Catalina Owners without Organized Association:

International All Catalina Alliance
c/o IACA Members
PO Box 9207
Fayetteville, AR 72703
Annual Dues: $25

YANMAR

The global standard in sailboat propulsion.

YANMAR JH-CR SERIES

40 - 45 - 57 - 80 - 110 MHP

PROVEN MARINE TECHNOLOGY

www.yanmarmarine.com

Lessons Learned:

Fishing from Your Boat

By Adrian Smith & Victoria Bauer • CM440 Hull #5 • S/V *Water Music*

When it comes to cruising sailors, there are three attitudes on fishing: those who are "hooked," those who see fishing as a functional pursuit, and those who don't like getting blood on their gelcoat. Throughout our year sailing around Australia and New Zealand about our CM440, *Water Music*, we were firmly in the functional camp.

Freshly speared coral trout at Kenn Reef in the Coral Sea in Queensland, Australia. (Photo at top of page) Vic proudly showing off a pair of coral trout at Kenn Reef in the Coral Sea in Queensland, Australia.

We saw fishing as a means to supplement our diets with a nutritious source of protein, whilst saving a lot of money at the butcher. Whilst we were fairly hopeless at fishing when we left our home port of Brisbane, Queensland, by the end of our trip, we rarely bought meat and lived primarily from the ocean.

The biggest lesson for us was that you have to vary your methods and techniques depending on where you are. Try to figure out what times of the day the local fish are feeding and on what bait, and this will help to inform your next steps. Oftentimes, locals in a tackle shop or at your nearest boat ramp will be your best bet for this type of information. A good example of this was when we were in Tasmania and having no luck trolling with lures until a local told us to bottom bash using bacon scraps for flathead. We never had a shortage of flathead after that!

We found that by far the easiest way to catch fish was to troll a lure or two whilst sailing. It gives you something to do on passage and is generally how you catch the bigger fish that will fill your fridge or freezer for weeks. If you are targeting larger species though, you need to think carefully about what you're going to do when you do get a strike. We found out the hard way that a small overhead reel with only 50-pound line was practically useless when we were surfing down waves at 8 knots, with a 30-pound fish and no easy way to slow *Water Music* down!

We ended up borrowing a tip from a salty old Kiwi sailor, as New Zealanders are known, whereby we bought a few empty hand reels and rigged them with 1/8" braided rope. We then swaged on a 10-foot leader of 200-pound monofilament that would be strong enough not to break but also make the lure look more natural. Lastly, our attachment to the boat included about 30 feet of shock cord, which would ensure that we didn't bend any hooks. The big advantage of this method is that the braided rope allows you to haul in large fish quite easily without slowing the boat down or cutting your hands up. You can also usually get away without a gaff to land the fish as the 200-pound monofilament leader is strong enough that you can haul the fish on to the boat by hand. In terms of lures, we found that the more expensive lures are not always the best. Initially, we spent a lot of money on the higher-end ones, only to find out that

SPICY FRESH TUNA AND AVOCADO SUSHI

Makes about 4 long sushi rolls
(to be sliced into smaller rounds)
Sushi mat required

INGREDIENTS

- 3 cups cooked sushi rice (cooked and seasoned according to packet instructions)
- 120 g or one large piece of fresh tuna cut into 2-cm (3/4-inch) cubes (can also use Spanish or school mackerel, jobfish, or coral trout)
- 3 tbs sriracha sauce
- 1 tsp sesame oil (toasted)
- 2 spring onions (white and light green parts only, sliced thinly)
- Sliced avocado (or use cucumber, red cabbage, or any other raw vegetable you have on hand)
- 3 tbs white or black or mixed sesame seeds (toasted)
- Nori sheets
- Sriracha mayonnaise
- Serve with soy sauce, wasabi, and pickled ginger

INSTRUCTIONS

1. Cook sushi rice according to packet instructions. Allow to cool.
2. Meanwhile, mix tuna (or other fresh fish) with sriracha sauce, sesame oil, and spring onions.
3. Once cool, evenly spread rice onto a nori sheet, making sure that the nori sheet is rough side up so that the rice sticks to it better. Sprinkle toasted sesame seeds on the nori rice.
4. Place the sushi mat on top of the rice and sesame seeds and flip the nori sheet over so that the sushi mat is face down and the other side of the nori is face up. Thinly lay a line of marinated tuna, slices of avocado and sriracha mayonnaise and tightly roll the sushi.
5. Slice the sushi into rounds and top with a dollop of sriracha mayonnaise.
6. Serve with wasabi, pickled ginger and soy sauce.

we had more luck on the cheap metal "spoons" that only cost a few dollars.

In more tropical climates, we found that spearfishing was a much more effective way of getting the exact fish we wanted. This was especially true on coral reefs, where it was quite difficult to catch fish that live close to coral bommies. In saying this, spearfishing is obviously a slightly more dangerous pursuit and requires a degree of fitness and a knowledge of one's physical limits, not to mention a healthy respect for sharks!

Another great way to supplement your seafood intake is to collect shellfish. We found oysters and mussels abundant in most estuarine locations and generally found them quite easy to get. In colder climates, such as Tasmania, abalone can be harvested by diving, but make sure you have a thick wetsuit! It must be said, though, that in some areas of the world shellfish can cause nasty health effects, so make sure you do your research.

The last thing to note on the topic of fishing is probably the most enjoyable part of the experience – the consumption! We experimented a lot with different recipes and techniques but ended up settling on a few favorites. In our opinion, for freshly caught good quality fish, nothing beats eating it raw. Whether that be as sushi, tartare, or ceviche, raw fish was always one of our favorite meals (see Vic's spicy sushi recipe below). For smaller fish, we generally oven baked them whole or shallow fried the fillets with a light crumb. For less palatable fish, we found that curries and fishcakes were a good way to mask less pleasant flavors. As a last note on cooking, be sure to not to waste the best part of the fish: the wings! This throat and cheek section can be somewhat gruesome to remove from the frame of the fish, but it offers a distinctive taste and quite a bit of extra meat that is often wasted in the filleting process.

Green jobfish sushi and ceviche for lunch off the coast of Cairns, Queensland, Australia…yum!

"FISH ON!" Our friend, Dan, fighting for our dinner.

About the authors

Adrian and Victoria sailed their CM440 *Water Music* down Australia's eastern seaboard from Queensland to Tasmania before crossing the Tasman Sea to New Zealand and back again. They live in Brisbane, Australia. See more of their fishing photos on Instagram at www.instagram.com/sabboatical.

View From the Bridge:

Flying Your Colours

By Henk and Johanna Grasmeyer • C250WB • British Columbia, Canada

If you are like us, you probably have an almost forgotten stash in a not-too-often visited place where a collection of different flags, ensigns, jacks and pennants reside.

Not only will they be different in size, shape and colour, but the methods of attaching them to a spreader, on the stern or bow staff also vary widely. Occasionally you come across this hidden place and spend a bit of time unfolding or unwrapping the ensigns, probably most having never been used, while wondering and visualizing how good actually they would look flying in a cool breeze on a nice summer day on your boat. Likely the problem that has stopped you from doing so to this point was the question of how to attach them to the various points on your boat

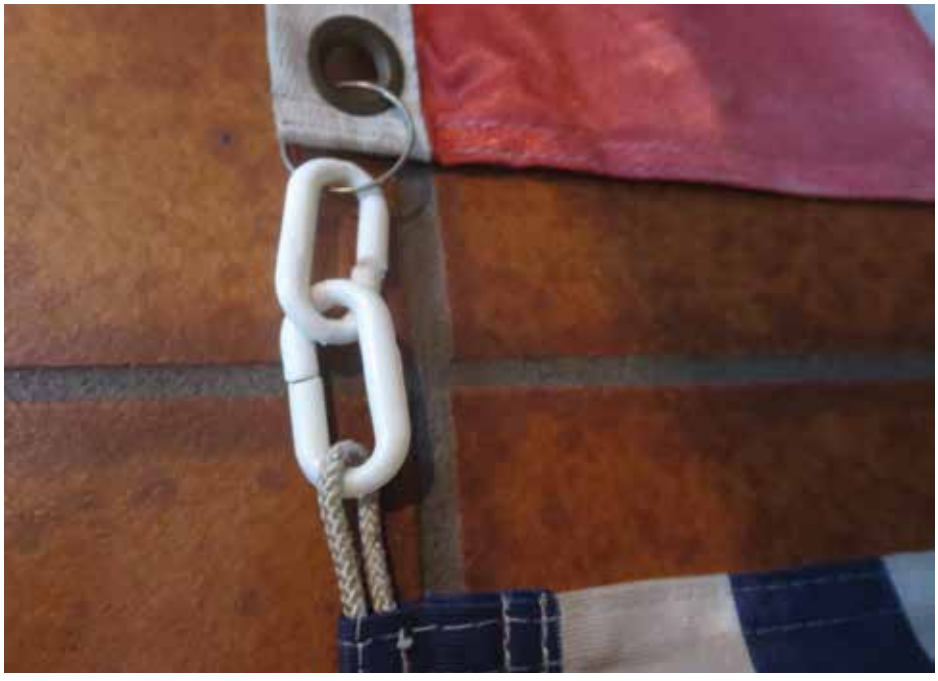
Wonder no more... here is an inexpensive solution. In most situations you can do this, by using a lightweight, plastic chain link with one of its legs cut through to connect the flag to a line, ring or to each other.

For exact flag etiquette, terminology, location, when, what and where go to... https://en.wikipedia.org/wiki/Maritime_flag

The plastic link chain is readily available anywhere in all sorts of sizes and colours and at a reasonable price. Just cut, saw or snip one leg in the middle as shown in one of the photos and you have an instant way of connecting or disconnecting your colours. All you need to do is to twist the cut link side open, insert your line or ring and the built-in memory of the plastic chain-link section will take on its original shape. Of course, by cutting one side of the link, it will lose some of its strength but more than likely will still be strong enough to withstand substantial winds and forces.

By connecting three or more links together each chain-link is able fulfill its own duty. For instance, the top link is fastened to the top of the flag and connected to the spreader, the bottom of the top flag connected with 3 links, one to the flag the second to the line and the third to the flag below, etc. Any configurations of course, is possible including multiple links for angled ensign staffs. The chains can be obtained in any lengths, various sizes, colours and are generally very light in weight so that they will not deter the flags in all but the lightest winds. **–Henk and Johanna Grasmeyer**

Any configurations of course, is possible including multiple links for angled ensign staffs.



About the authors, Henk and Johanna Grasmeyer: Both natives of Holland now living since 1974 in British Columbia, Canada, I learned to sail at the age of six in a rowboat with oar and bed sheet. Owned a Hobiecat for years and eventually purchased "Someday Lady", a trailerable '95 Catalina 25 ft water-ballast hull #151 several years before retirement. We both were blessed with wonderful jobs in marketing and nursing, while raising 4 children and now boasting 13 grandchildren. As a way to transition, in 2006 at the ages of 62 and 59, into retirement Johanna and I lived aboard for one entire year while cruising around the continent from Vancouver, BC via San Diego to Florida, north to Ontario and through the Trent/Severn waterway from Lake Ontario to Georgian Bay west again. We spent approximately half the time on water and half on the road. Ask us about the reactions at RV campsites when pulling in as overnighters while taking the swim ladder down and climbing on board for a good night rest. It was our "home", for an entire year while following the sun, covering over 25,000 km or 16,800 miles. Since, we have taken months-long cruises to Havasu, AR, San Diego, Cal, Lake Harrison and multiple cruises to the San Juan's and Desolation Sound. In order to accommodate us comfortably during our many boat cruise explorations we made and added a wide variety of modifications to our much loved, '95 C250 WB hull #151

Change of Course:

Refurbishing our Dream Boat

By Joane Leblanc • C470-28 • *That's It!* • Photos by Joane and Andre Leblanc

If at First You Don't Succeed...

I can't even imagine listing all the work we did, but every action taken was worth taking. However, we did have a couple of flops. My initial work on the counter tops didn't turn out as expected: I had finished them in a faux white marble and the result looked pretty good, but after a few weeks the paint started to yellow, and I had to strip it all and start over. This failure was a blessing in disguise, though, because our second effort came out looking 100 times better. The shower walls were another flop. We had painted them (not the fibreglass) with a paint that started peeling after a while, so again, I stripped it all down and used an industrial epoxy paint with two coats of clear. When you take on a project of this magnitude, you're bound to make mistakes…and hopefully learn from them.

Joane working on faux white marble finish and feeling happy – but not for long!

In the summer of 2018, my husband André and I went on a month-long sailing tour of Lake Ontario. For the first time in 20 years, we were alone: our 18-year-old son no longer wanted to tag along, and we had retired our aging dog from sailing. While browsing boat ads one day, I saw a Catalina 470 for sale. At the time, this was the kind of boat André and I could only dream of. I thought, "Let's check her out, just for fun." But when I called to make an appointment, I was told the boat had already been sold. We were bummed out. Then, something unexpected and wonderful happened. And this is the story of how our dream came true.

A Stroke of Luck

We had owned and sailed a Hunter 34 for the past 20 years, and the passion for sailing was simply not going away. Returning from vacation later that summer, I got a notification from a classified ads website: a C470 had come up for sale in Ontario. We had no plans to go bigger, but I like to look at sailboats for sale. The ad quoted a ridiculously low price, so we suspected the boat might be in bad shape. On a whim, that same day, we called to make an appointment, drove 350 miles to visit her, saw the state she was in, drove home and put in an offer. And just like that — but not without a lot of negotiating — she was ours! So we put our Hunter up for sale and within weeks, even though it was autumn, she was gone.

The boat was on the hard untouched for many years. We were told the previous owner had dismantled the interior to clean it (perhaps due to a problem with the electrical panel) and he sadly died before he could finish the work. André surveyed the boat and determined that only the inside needed restoration, except for the electrical panel which was all new.

André drove to Toronto with our friend Richard, who helped prepare the boat for her trip to her new home. By the time André and another friend, Jean-Pierre, sailed her to Valleyfield Marina, it was late September and fall was here. We live in the Province of Quebec, where the winters are freezing and snowy, and boats are routinely pulled out of the water by mid-October. Luckily, our home is in the country and we had enough land to keep her until we were done getting her back into shape and restoring her to her original beauty.

Um, did I mention that she was in terrible condition? Sure, the shell (hull, cockpit and deck), the rigging, the motor and the sails were in good condition, but the inside…OMG! Nearly everything above and below the sole in every part of the boat was a disaster. (Fortunately, all the cushions were brand new foam and fabric.)

I could see in some of our friends' eyes they thought we were crazy for taking on a project of this magnitude. We knew it wasn't going to be easy, but we felt we had everything going for us: she was in our backyard, my husband is a highly skilled machinist, and our machine shop was only feet away from the boat. We had done all the maintenance and repairs ourselves on our previous boats so nothing really scared us. Plus, we're both hard-working, dedicated people.

How We Put Her Back Together Again

We felt a good plan would be to go with the seasons: work on the outside of the boat in good weather and on the interior in spring and fall, when it's too cold to work outdoors. We built her an enclosure so we could work inside in cold weather and put the parts that

(continued on page 12)

SolarFlexx ON THE BIMINI...

Solar Installation Simplified…

SolarFlexx complete solar packages contain everything you need for a professional looking installation, done in a day!

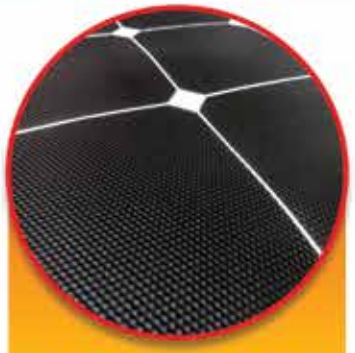
Using the PowerBoost Advanced MPPT solar charge controller, SolarFlexx packages are engineered to push 10-30% more power into your batteries, for a fast, full charge.

Lightweight, low profile & easy to attach, SolarFlexx panels fasten to the bimini canvas without the need for any custom fabrication.

Whether you need minimal power for battery maintenance, or lots of power to run the fridge, we have a SolarFlexx package for you.

Complete SolarFlexx packages from 50 to 440 watts!

Ferris
POWER PRODUCTS



Performance

New hi-efficiency back contact cells and new ETFE textured laminate, provide superior low light performance as well as improved UV and salt corrosion protection.

Simplicity

All SolarFlexx panels have integrated fasteners that provide quick and secure, solar-to-bimini attachment, plus easy end-of-season removal.

Quality

Refinements such as a new 7-layer laminate, rounded corners and a thru-bolted junction box, provide the durability & performance SolarFlexx panels are known for.

HAMILTON FERRIS CO - POWER PRODUCTS
508•743•9901 www.hamiltonferris.com

PROVIDES POWER TO SPARE!

All wrapped up and ready for her makeover

had to be stored in a big closed-in trailer until we were ready to work on them.

We first took out every door, cabinet, moulding and removable piece of wood, and stripped, sanded and oiled them all during the winter. We applied teak oil instead of varnish because we prefer that type of finish. By the time we were done, spring had sprung, and it was mild enough to start working on the rest of the wood inside the boat.

Our next task, in summer 2019, was to replace the ports and deadlights as well as remove and re-bed the hatches, all of which had been taped shut.

By then, André was eager to work on the hull, so he and our friends Jean-Pierre and Michel sanded the antifouling paint down to the gel coat. André also worked on the keel, which needed a bit of fixing, patched up a few scratches on the hull and applied a water barrier. Our friends came back later to help finish it with Coppercoat antifoul.

Next, André machined new 316 stainless steel thru hulls to replace the existing ones. Because the boat was extremely hard to helm, André and Jean-Pierre pulled out the rudder. Owning an excavator turned out to be just what we needed to ease the pain of digging by hand to pull it out. André found that the bushings were too tight on the shaft, so he made new ones. You can now move the rudder with a pinky!

We then removed the fuel, waste and water tanks and the water heater to thoroughly clean them and applied a Resisto waterproofing membrane to the outside of the plastic waste tanks to prevent odors.

Autumn now being at our doorstep, we went back inside to clean and paint the bilge, and replace all the water, diesel, propane and ventilation hoses. It was hard physical work. And you know, there comes a point where discouragement sets in: you've been working hard inside for months, and yet none of it shows because it's all down below. So the time had come to put in a little bit of beauty!

Our new galley

The Galley, Heads and Showers

The countertops in the galley and both heads were damaged and we didn't care for the original color, so we decided to repair and rejuvenate them. A few coats of charcoal color industrial epoxy paint, a bit of white paint for a marble effect and a couple of coats of clear did the trick. The result is amazing!

We were now able to rebuild. In the galley, we re-installed the cabinets, a new sink and faucet and a new refrigeration unit with cold plate, compressor and electronic thermostats. We used the drawer space under the stove to accommodate and conceal the compressor and drilled half-inch holes in the door for ventilation. There is still an unused space just below the stove, which we're going to optimize by installing a two-inch-high storage drawer for miscellaneous items.

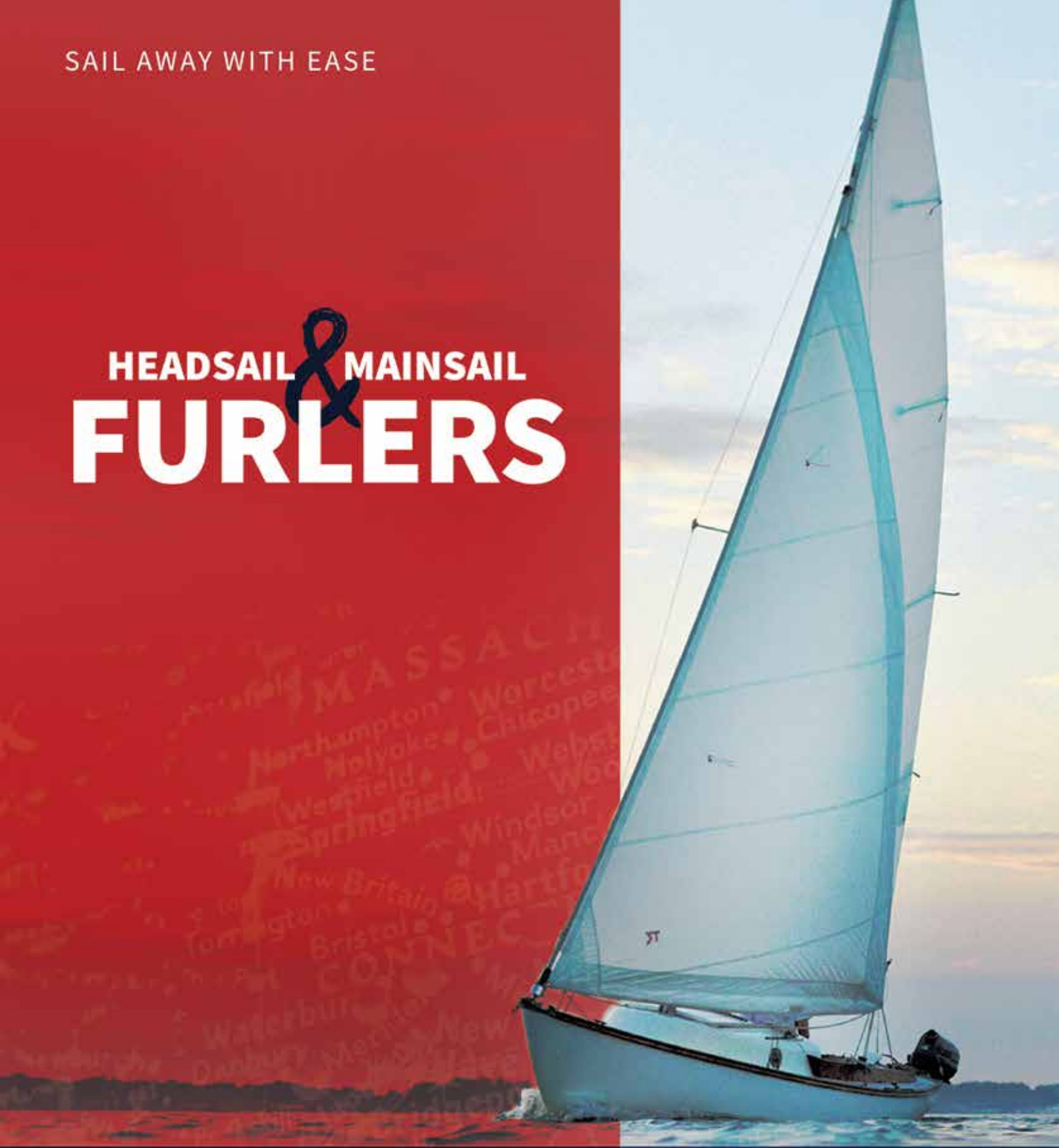
The refrigerator door hinges were missing and the wood on the door was at the end of its life, so André made new hinges, replaced the wood with black anodized aluminum plates and covered the front with a stainless steel plate.

In the heads and the showers, we replaced the toilets, painted the walls (but not the fibreglass) and the cabinets, replaced the mirrors and installed new sinks and faucets. Whew! I'm out of breath.

(continued on page 14)

SAIL AWAY WITH EASE

HEADSAIL & MAINSAIL FURLERS



CDI has been involved in the sailing industry for over four decades. We stand firmly behind our products, and with unprecedented reliability our furling system will save you time and money. Backed by our comprehensive warranty, you will have peace of mind and more days on the water. Visit **Sailcdi.com** and sail away with ease.

CDI
CRUISING DESIGN
INTERNATIONAL

A new fridge door

The aft head

The Companionway, Main Salon and Cabins

André built new doors out of sucupira (Brazilian chestnut) to replace the existing companionway doors and we replaced all the interior stainless steel tubing (companionway rails and galley pole).

The only changes to the main salon worth mentioning: the previous owner had glued charcoal Formica over both tabletops, which is one of the reasons we went with the charcoal color for our countertops; we also raised both adjustable armchairs by 4½ inches because we found them to be too low. They are now at the same height as the banquette seating.

In the owner's cabin, we restored the wood, cleaned and painted the bilge underneath the fuel tanks, replaced the nightstand lamps and installed fans. We bought a new mattress and removed the headboard, which gives us a bit more headroom. In the guest cabin, we also treated the wood, replaced the mattress, installed a fan and new lamps, and added a bank of batteries under the bed for the windlass and the bow thruster.

The Floors

Here comes spring again and we decided to work on the soles. The teak and holly looked awful, as though a varnish had been applied on the moisture-laden wood. We knew of a faux teak and holly vinyl boat flooring that looked fantastic, but was outrageously expensive.

After a lot of research, we found some 6" × 48" teak-color and beige vinyl tiles. We had the teak-colored pieces cut into 3-inch strips and the beige ones into 3/8-inch strips and created our own teak and holly imitation for a small fraction of the price.

Taking one piece of flooring at a time, we sanded the veneer down to the wood, cut the strips of vinyl to the right length, glued them on the original teak and used a router around the edges of each board. The result is even better than expected. Just so you know, because we knew that vinyl can expand in warm weather and shrink in cold weather, we tested its tolerance and found the effect of either to be minimal.

The Chart Table

The previous owner had changed the position of the chart table and eliminated the seat so that the table was now deeper and wider and faced the galley. We didn't mind the change, as we never sit at the chart table anyway. But since the modification also added a good amount of space underneath, we thought, "why not use that space to store a well-equipped toolbox?" You know, André is a machinist, and tools are a must on a boat. So we now have a securely anchored toolbox, mounted on casters to provide access to the valves located behind it. And once the new teak doors are in place, you'll never know they hide a toolbox.

Raised captains' chairs and toolbox under the chart table

The Arch and the Cockpit

If you ask André what he is most proud of, he'll definitely say the arch. After reflecting on it for a long time, he sketched it out and tested it with plastic tubing mounted on the boat. Once he determined that the fit was good, he bought 316 stainless steel tubing, had the sections bent and welded the pieces together. He machined fittings to secure the arch to the boat, to mount the solar panels and the radar, and to accommodate the mast for when we need to un-step it. We installed the arch and the dinghy to confirm height and fit, but we'll remove them to transport the boat when we truck her back to the water.

We didn't like the configuration of the chartplotter/MFD in the cockpit. The fact that the display was too low for us and that it was static posed a problem. We wanted to be able to see the display from either the port or starboard helm and wanted it raised because we are both tall. So, we installed a custom-made pivoting pedestal, which allows us to turn the display from port to starboard. The unit is secure enough that the pedestal won't rotate by itself.

The only two things we outsourced were the dodger/bimini/full enclosure, the striping (bought from Catalina Direct) and lettering on the hull, since that is well outside our areas of expertise.

Good Karma

What's really funny is that at one point we realized we had seen our boat some eight years prior while docked at a marina on Lake Ontario. She was on land, and we could see that something had happened to her. We both remember that at the time we told ourselves she was way out of reach for us. And now, she's ours! It's as if it was destined to be. In a sense, we rescued her.

Since October 2018 we have spent all of our free time working on her, and I can now happily say that we're 90% done. From bow to stern and from cabin top to keel, we fixed, replaced and cleaned it all! We are now installing a heating system, MFD inside and outside, AIS, VHF, autopilot, depth sounder, speed log, wind generator, fish finder, radar, solar panels…the whole shebang. What's left? Replace the running rigging, all the wires in the mast, install the upgrade to the traveler, polish her up a bit, transport and launch her. And then we'll be ready to go!

Where To?

Our goal was to become live-aboards for at least a year and sail from Canada to the Bahamas to spend winter 2020 there.

Then came the pandemic. But everything happens for a reason: we now know that the boat would not have been ready in August and because we'll be able to leave earlier in the season next year, we've revised our itinerary. Instead of going up to Lake Ontario (where we've been sailing for the past 25 years) to cross into the US, we'll have time to sail down the Saint Lawrence River and visit some legendary Quebec regions — the Bas-Saint-Laurent, the Gaspé Peninsula, the Magdalen Islands — as well as parts of Canada's spectacular Atlantic provinces, before heading to the US and then south to the Bahamas. And if COVID-19 restrictions are still in place? We'll cruise the Saint Lawrence and Lake Ontario from May to October.

But no matter where we go, we'll be proud to tell the story of how she became a "brand new old boat" and regained her original beauty…in our eyes anyway. And for us, that's it, she'll be our last boat.

By the way, did you notice her new name?

We would like to take this opportunity to officially thank our friends Jean-Pierre, Michel, Richard and Yvan, my sister Michèle and our son François-Olivier who lent a hand with the work, as well as everyone who had to put up with hearing us talk endlessly about our progress and with having a stream of unsolicited photographs regularly forced on them. It was just what we needed to help us stay on course.

This is her now!

Giving the *U-n-Me* a Lift

Frank Vaughan (left) from Lewisville, Texas and his friend Neil Samuelsen on boat delivery day.

By Frank Vaughan • C25

A few years ago we found a 2000 Catalina 250 wing keel for sale on Craigslist. The boat was neglected and dirty with some fiberglass damage on the port rear, but it was dry and clean inside. The price was very good. The person wanted to get rid of the boat fast, so we bought it. We cleaned the boat top to bottom, got a new outboard and moved the boat to a local lake, paying $400 per month for open slip rental. We named her *U-n-Me* and have enjoyed the perfect, for us, lake sailboat.

We were both retiring and decided to downsize. We were looking for a lake house and we looked at several houses on several area lakes. After much searching we decided on Cedar Creek Lake.

The fourth largest lake in Texas, Cedar Creek Lake is 32,623 acres, 18 miles long and offers 320 miles of shoreline. The widest point of the lake is 8.5 miles and the deepest is 53 feet. Cedar Creek Lake is one of the very few lakes in Northeast Texas that allows property ownership on the waterfront with the ability to have your own private boathouse. My primary retirement criteria was to have deep water at the dock for

New lift frame

New lift motor

New pulley and cable

U-n-Me on trailer

the sailboat. My wife wanted a smallish one story we could easily fix up and age into. We found a older house in a quiet neighborhood with an existing sailboat dock in 8 feet of water on a large channel. The lift had a decrepit, neglected Venture 22. A mallard duck family occupied the cockpit. The lift was rough looking but it worked, well, sort of. We decided to buy the house and most importantly, (to me), rehab the lift so we could find a permanent home for the U-n-Me.

The lake has a maximum elevation of 325 feet. It can and does drop low in droughts, so boat docks and lifts are mounted on piers driven into the mud and clay bottom. The dock is set at 325 feet, and there is 8 feet of water when the lake is full at the normal level of 322 feet. Since there are occasional droughts, all boats are on fixed lifts instead of floating docks.

The Venture weighed in at 1,600 pounds, not including the Mallard family, and the U-n-Me weighed in at 4,200 pounds. The frame measured 11 foot wide by 15 foot long, so the U-N-Me would fit. We needed to determine if the existing frame and poles were in good enough condition to upgrade the lift equipment. The piers are 10 inch drill pipe and are the foundation of the lift. They are capped off with a 12 inch steel C beam that is welded on the piers. If the piers or C beam were compromised, I would have to tear out the whole structure and start over again at enormous expense putting our budget and recent marriage at risk. While working on the new deck, I found a contractor in the area that specializes in boat lift construction and he tested the piers and determined they were sound. The existing boat cradle was rusted with several welds broken and was cut up for scrap by a local welder. The C- cap was rusty but once scraped we found solid steel. The contractor recommended a new lift cradle fabricated out of aluminum, new cable, new higher capacity pulleys and a new electric motor to replace the rusted 1974 ½ HP motor. The project seemed very doable and our new marriage was preserved.

The aluminum lift cradle was fabricated locally. Catalina was very helpful on our 20 year old boat and gave us the shipping cradle dimensions in addition to several pictures online of the trailer setup. These were used to fabricate the cradle. I decided on 2 bunks for the hull to rest on as straps can compress the hull. Per Catalina's advice we left the keel unsupported, as support is only needed when moved over the road. The original pulleys were rated at one ton and rusty. We had 4 pulleys so we replaced them with 2 ton pulleys with grease fittings. The rotary pipe that makes the boat cradle lift was rusted through and was replaced with a new pipe with grease fittings. The 110 volt motor was replaced with a 220 volt 1.5 HP motor with new gearing. The lift cables were rusted, so I replaced them with 5/16" Stainless Steel Aircraft Cable Wire Rope -7x19 purchased on Amazon.

The new cradle was lowered into the lift frame, cables and motor were attached and the cables were hand spooled onto the pipe. I connected the motor and tested the unloaded frame.

 (continued from previous page)

It moved up and down smoothly but very SLOWLY.

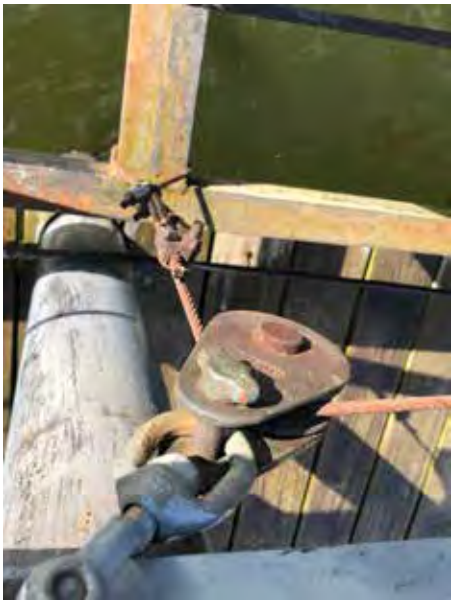
On a cold, blustery day the boat mover met us at our old lake. We pulled the U-n-Me from our rental marina and drove 1.5 hours to her new home. The marina we launched from was 3 miles from *U-n-Me's* new home, and the north wind was on the nose at 25 knots, so we motored across in 40 degree temps. Why are babies born late at night and boat movers can only move when the weather is snotty? My nurse wife doesn't know why either, but go figure.

Luckily our channel faces east, so we had smooth waters with no fetch at the dock. Our first docking attempt was successful! Even with an audience! We loosened the middle bolts on the bunks and adjusted them to fit the boat. After some adjustment, we started to lift the U-n-Me into her new home and instantly blew the 220 circuit breaker. I discovered a bad powerline to the dock, so an underground cable had to be laid from the house to the dock at an unexpected cost. I opened the dockside circuit box and found a massive dirt dauber nest. So, a new box was added with new GFCI breakers.

I learned that, like all boat repairs, a surface simple fix is often more involved and costly than the first look. I should have looked more closely at the electrical aspects. I should have engaged a contractor that could handle all aspects of the project instead of piecing it out.

We ended up paying more for the lift repairs than we paid for the boat, and went over budget by 40%. Do I tell my wife or not? I decided to be honest, and in return promised her a sunroom addition to the house. That worked. Now we can step out our back door onto our boat and the *U-n-Me* beckons. Marriage intact, my wife and I are now living in a year round sailors paradise!

Original lift pipe and cable



Original lift pulley and cable

The existing boat cradle was rusted with several welds broken and was cut up for scrap by a local welder. The C- cap was rusty but once scraped we found solid steel. The contractor recommended a new lift cradle fabricated out of aluminum, new cable, new higher capacity pulleys and a new electric motor to replace the rusted 1974 ½ HP motor. The project seemed very doable and our new marriage was preserved.

Original lift cradle

Original lift motor

SELDÉN

Learn More @ www.CatalinaYachtsStore.com

Catalina Yachts Store

SAILS • PERFORMANCE HARDWARE • CUSTOM APPAREL • ACCESSORIES • & MORE

Sailing Trip to Lord Howe Island, Australia

Aboard Catalina 320, *Cool Change*

I have been thinking about a trip to Lord Howe Island for quite some time. However, after watching the documentary film "Big Pacific, episode 1 – Mysterious", which aired in 2017 and contained a great story about Lord Howe Island and the nearby mysterious rock Ball's Pyramid, my desire of visiting the island was intensified significantly. Being a passionate sailor, it has been just natural that both my desires have just married. This IS happening. We are going to sail to Lord Howe Island!!!!

Lord Howe Island (LHI) is located 313 nautical miles due east from Port Macquarie, New South Wales (NSW), Australia, where I live. We are: Catalina 320 sailing monohull vessel called *Cool Change*, skipper and owner Teddy Clausen plus three crew: Michael Fox, my sister Elena Belousova and myself - Larisa Trapeznikova. Unfortunately, our other crewmate and very experienced sailor, Peter Finnegan, just happened to have an accident, tearing ligaments in his leg and could not make it. Michael and I are quite familiar with the vessel, as we are the regular crew, participating in yacht racing events with Teddy on *Cool Change* as part of Port Macquarie Yacht Club.

Cool Change, C320 #294, leaving Port Macquarie. From left: Larisa, Teddy, Elena, Michael.

LHI is part of NSW and administered by the LHI board under special state legislation. Normally, we need to book a mooring for the vessel at least 6 months beforehand, as there is a limited number of tourists that can be accommodated and a limited number of vessels allowed for mooring. There is no marina and only one jetty, on which you are allowed to stay only for a very short period, just to pick up jerry cans of water or fuel. In addition to these, it is 2020 - the year of COVID!! We applied for permission to sail to the island in August but the island was still closed to all visitors per COVID restrictions. Every month, the board considered opening the Island, and finally, hoora-a-ay, it got opened for NSW residents from October 23rd.

We started our trip late afternoon on October 29th, 2020. The land was gradually receding from view,

By Larisa Trapeznikova

Beautiful view to the southern part of the island. You can see two highest points: Mount Gower, 875m (right) and Mount Lidgbird, 777m.

Below in the cabin, lots happening; new batteries, new solar panel and all connections, engine service, checking the charters, new sat phone set up.

and all of a sudden, there are only us and the ocean. I sailed from Hobart to Sydney twice before, however this time it felt different. Somehow previously it was like coastal sailing with just a channel crossing. The channel had looked so small on the charts compared to the landmasses of both islands. This time we had left the grand land and our destination is only a little dot ahead of us which could be so easy to miss.

For the communication with the land and for the emergency, Teddy has purchased handheld satellite communicator Garmin inReach SE+. It provides communication, location sharing, navigation and critical SOS button. Great tool. 100% global Iridium satellite coverage enables 2-way text messaging from anywhere. We actually could send and receive text messages to/from relatives left on the land, use the weather reports functionality and receive weather reports from our nominated weatherman and crewmate, who normally is also racing on *Cool Change*, Ken McDonald. Also, we were able to communicate with another yacht from Port Macquarie YC, 38ft Solar Coaster, skippered by Stuart Watson, which had accompanied us to the LHI. They left Port next mid-morning on October 30th.

Our first night out, winds were calm, as predicted, and we were motoring until noon the next day. We had a chance to adjust to our watches. Being four of us makes it easy: 2 person watches, three hours on, three hours off, through the night. My sis with Teddy started the first watch from 9pm till midnight and I was paired with Michael.

In the afternoon on October 30th, the seas had built, the winds had freshened up, we put up sails. Nothing excites me more than seeing the sails filled with air and hearing the waves lapping against the hull.

It is the first long blue water passage for my sister, as she had experienced only coastal day trips so far. Well done sis.

The gale is brewing from the northwest, trying to catch up with us. We were well prepared; double-reefing mainsail and furling the headsail well before it hit us at night.

There is no internet on this island, but there is a higher connection…

Forecast of strong winds coming our way proved to be correct, as by the late afternoon of the second day, winds did increase to steady NE 25-30 knots, with gusts up to 33 knots. There was an interesting cloud formation to the west that actually become quite frightening and we turned on the engine to skirt the worst of it. Later we double-reefed the main and furled in some headsail. Night wasn't as serene as the previous one, with rain and strong winds.

We found out next morning that hail up to 14 cm was reported south of Brisbane, as parts of south-east Queensland were pummeled by a series of very dangerous and "life threatening" thunderstorms in the afternoon of October 30th. Stuart, from Solar Coaster, sent us the message that they got into a storm with gusts up to 60 knots. It is hard to comprehend. I had experienced 40+ knot winds, and that was not pleasant at all, but 60.... Solar Coaster cannot really run on the electrical engine they have, so they were mostly sailing and had to avert to the South, as the winds were NE, ENE or NNE all the way to the island and it's hard on close haul.

The strong winds continued for two days into Sunday, November 1st. My sister got a bit sea sick. I was queasy every time when I was plotting our trek on the paper charts and filling the log book. There were less and less talks between the watch men. Fatigue and lack of sleep had taken their toll. Nevertheless, the whole atmosphere was positive and everyone was looking forward to exploring the magnificent land we were approaching.

We didn't see many sea creatures on our way, apart from some birds. They were identified by my sister, who is a keen birdwatcher, as Black Pacific Ducks and Shearwaters. Later, we saw a lot of the blue jelly like discs on the surface. Jelly Blubbers, announced Michael! Blue Bottles, suggested my sister. Not sure about both, as these were different, they were quite flat discs.

Finally, at 8pm on November 1st, after being at the sea for 77 hrs, we approached our destination; Lord Howe Island. Our trip to the island had been a success; no injuries, no dangerous or hazardous situations, apart from some minor details, like two nights of strong winds up to 33 knots max and big swells, thunderstorm and lightning one night. Great decisions made by our excellent skipper, Teddy Clausen, allowed us to avoid any dramatic situations.

Unfortunately, LHI Port Operations do not allow entry to the lagoon after sunset. They advised us to anchor in front of the north passage to the lagoon, in the area marked LH1 on the charts. But of course, as Murphy's Law often has it, long awaited Westerlies had to kick off at that very moment. The fairly strong Westerlies caused us to be stranded too close to the reef. We could not retrieve the anchor fast enough and had to drop the chain, losing the anchor together with just purchased new and shiny chain of 50m. Later the anchor and the chain were successfully rescued and delivered to us by Biosecurity officer Tim. What wonderful and friendly people live there.

After this first unsuccessful attempt we were sent to another anchorage at Middle Beach on the eastern side of the Island. It took us another 2.5 hrs to get there via north side around the Admiralty Islands and we set the anchor watch for the rest of that night. Next morning on November, 2nd, very well refreshed after a good half night of sleep and the welcomed bowl of hot porridge with some nuts and sultanas, we gloriously entered the lagoon using the lead lights and LHI police radio instructions, and picked up our allocated mooring.

It is quite significant to us that we were announced as the FIRST vessel to visit the island after the COVID restrictions were eased during inspection of the vessel by biosecurity authorities. Teddy noted, oh yes, good to be first at something. No welcoming basket for us, but a great reward is this absolutely magnificent piece of Paradise, this island, which is called "Galapagos of AUS", to be explored for 7 days. Oh, life is beautiful... for some.

Exploring Lord Howe Island

LHI was discovered in 1788. It's a paradise of volcanic eruption origin. This island has never been part of any continent. Unique insects, birds and animals are here as a result of wind and waves. The most interesting is a stick insect called the tree lobster or walking sausage, 15 CM long. In 1918, rats were introduced to the island due to sea shipwreck and the poor stick insects were extinct. Creatures that existed for 2 mlllion years was eradicated in 2 years. Some say that these insects survive on Ball's Pyramid rock, lying 12 nm southeast of LHI.

It happened that our skipper Teddy Clausen's birthday was on the 6th November during our Lord Howe Island exploration week.

Dear Teddy, Happy Birthday and thank you so much for being instrumental in make this amazing trip come true. Thank you for preparing *Cool Change* for the sailing, for updating, fixing, installing numerous items, for having all navigation ready, sat phone, thinking through and making best decisions on the go, being cool calm and collective, having good humor and patience to deal with the crew.

There are plenty of scenic walks, many beautiful beaches and fantastic snorkeling sites on the island. No way we could have done them all in a week. Unfortunately, it's time to sail back home.

Marine Police Force Rescue successfully brings Solar Coaster to the safety of Nelson Bay.

The Return Trip

Sailing trip from LHI back to port happened to be quite interesting. My sister, Elena, had made arrangements beforehand to fly back home and thus, the remaining three of us left mooring early morning at 5:30am on November 9th. The first day was smooth, though with quite big 3m swells and 20 knots of southern wind on the beam reach, and by midnight we had covered almost 100nm. Here our boring part ended, as we received a distressing message of Solar Coaster being dismasted. I want to explain how we kept the boat running with only three crew. We don't have auto-pilot, or rather it didn't work this trip for some reason. So, for safety, we always had 2 people on deck. The rotation at night works this way: 2 hrs on the helm, 2 hrs standby, 2 hrs below in the cabin, sleeping and so on. All works fine, when everything is in order and calm, meaning mentally calm. But the message we received at midnight on the 10th November broke this routine. From then on, whatever happened had a bitter taste of worry, anxiety, fatigue, sleepless nights. I imagined all possible horrible scenarios on how and why the mast would be broken. There in my head are the scenes of huge rogue waves, broken limbs or spinal injuries, blood everywhere.

Solar Coaster, being bigger and faster than us, was about 15 nm ahead. We entered their position, which always accompany the message on the Garmin inReach Communicator tool, into our GPS and pressed the GOTO button. It took us about 2.5 hrs to find them, miraculously, in the dark moonless night. All three persons on Solar Coaster were safe and not injured (big relieve) and their electrical motor is in order, though no way it would be enough petrol to motor 220 nm to the closest Australian shore – Port Macquarie. Our first attempt to tow Solar Coaster was not successful. Even though we managed to take Solar Coaster under tow, the rope was too short, no bridle on any end, the big swell caused a collision and minor damage to *Cool Change* and finally we could not make any way forward. We noticed that our position had remained practically unchanged in 30 mins. Teddy made a decision to disconnect the tow line, browse around Solar Coaster till morning and re-assess the situation in the daylight.

Morning had brought not only clear vision around the scene, but clear heads and the towing operation was a success. This time the Solar Coaster crew made bridles on both ends of the tow line, well done guys.

In the meantime, Solar Coaster had issued an alert on the situation and Marine Area Command NSW Police Force, in a joint operation with Australian Maritime Safety Authority (AMSA) has commenced a rescue operation. By midday on Tuesday 10th November, a Challenger SAR aircraft from Melbourne appeared in the sky and 80 liters of fuel and a sat phone was dropped to Solar Coaster from their aircraft. It was done with such impressive precision, was amazing to watch, well done, real professionals.

After the successful AMSA operation drop, at around 3pm on November 10th, with sad feelings for Solar Coaster, we smoothly sailed off to the west, putting up both our mainsail and jib. We could not do anything more for them. We wouldn't have enough fuel to tow Solar Coaster all 220 nm. In fact, at that moment we had only 30 hrs of fuel left. We needed to use wind power to get back home.

It had taken us 85 hours to sail from Lord Howe Island, including some detour and delay of 12 hrs, being around distressed Solar Coaster and at 1400 on Thursday, November 12th we successfully crossed the sandbar and entered our dear safe harbor at Port Macquarie.

Our trek. The cross is when we got distress message and the circle is where we found Solar Coaster.

Tech Notes

Q&A for Your Catalina That's Been Factory-Approved for Accuracy

Tech Notes are also available at **www.mainsheet.net** in PDF format for printing or reading on digital devices. | Summer 2021 password: S392

CATALINA 470 NATIONAL ASSOCIATION

The Resorgimento

C470 Association Technical Editor Joe Rocchio

The Catalina 470 made its debut in 1999. Of the ~173 hulls produced, almost all are still in the fleet. Many of the owners who purchased a C470 new, the "index owners", like myself, are still enjoying their well-designed, well-built, comfortable, strong, and resilient vessel capable of sailing them where ever they care to wander. Over the last few years though, the tides and times of life have caused a growing number of index-owners to pass their C470 jewel on to a "next-generation" owner. I've come to view this as the C470 Risorgimento: a time of renewal, renaissance, revival, and rebirth of the C470 Fleet. New blood, new backgrounds, new skills, new ideas, new questions – same love of sailing and adventure. A strong, vital, and vibrant living C470 Fleet.

These "Risorgiomenti" are in the process of learning the nitty-gritty about their C470s as they prepare for fulfilling their dreams of sailing adventure. They seem to have some more-basic information needs for operation and maintenance – things index-owners have gleaned over the course of years. So, with this in mind…

Where is the engine stop control? A recent question emerged on our online forum. I was initially surprised by the question because I never needed to think: just press that STOP button on the engine control panel – the one next to the START button! Then I learned that previous to the Yanmar 4JH3TE engine that powers most of the fleet, earlier models had a mechanical push-pull stop control located near the helm or in the companionway area with a cable that activated a fuel shutoff valve in the governor-injector pump system. The 4JH3TE incorporates a solenoid-controlled valve to do the same when that STOP button is pressed. But, what if you are below and need to quickly stop the engine? Then you open the starboard engine box access door and momentarily rotate the lever on the fuel control unit, on the side of the engine just aft of the fuel filter as shown in Figure 1. Simple.

But it can get complicated. A diesel will run as long as it gets fuel and air. Just shut off the fuel and that's that – not quite. Why? Because, a diesel can begin to consume its lubrication oil or the vapors of fuel that has somehow leaked into the crankcase. There are several possible failure modes: (1) the oil level gets too high due to a maintenance error, (2) water or fuel intrudes into the oil pan raising its level, (3) there is a piston ring failure, allowing fuel blow-by into the lubrication system – all causing excess oil (fuel) vapor to be sucked into the air intake via the rebreather line. This is very dangerous because the governor cannot limit fuel to control the rpm. Accelerating rpm can follow – runaway – and potential severe engine damage.

What then? The simple answer is "plug up the air intake and choke it." Well, I've known this for years but have never done it. So, I decided to test the process – and my two initial attempts didn't work. The air intake is a cylinder 5" diameter by 3" high with the air intake grill around the sides of the cylinder. The base is mounted to the turbocharger air intake. The top has an inlet for the oil re-breather hose from the crankcase. Attempting rapid access (remember you are trying to do this because the engine may be headed to runaway) is a challenge due to the confined location and interference from the rebreather hose.

For the first trial, I wrapped a piece of heavy plastic sheet (shrink wrap material) around the air intake can

Stop lever on fuel control system. Rotate clockwise momentarily to stop engine.

while the engine was at idle. Failure: the vacuum is so strong air is pulled in from any minor opening. Next, I took a 3"x 24" piece of lightweight cardboard that was strong yet could be easily conformed to cover the air intake screen. Failure: air still got in.

I realized it was easier to unsnap the two fasteners and remove the air-filter can than to try to wrap something around its circumference. Caution: Great care must be taken when you try to do this in a test because the strong vacuum can suck in anything loose and damage the turbo.

I tried the plastic lid from a small coffee can to seal the inlet to the turbo charger. See Figure 2. This was still too leaky to stop the engine even at idle speed. I then used a piece of soft silicone sheet (baking sheet). This was pliable enough when pressed firmly over the entire surface to choke air flow to stop the engine. But a relaxation of pressure and only one revolution of the engine was enough for it to restart.

So, *Onward* will now keep a silicone sheet with the engine spares and tools for such an emergency. Another approach would be to use a CO2 fire extinguisher if you have one aboard.

Some more recommendations for Risorgiomenti.

Through-hull Valves (THV)

There are many THV on a C470. Keep a chart showing their location and function available. Exercise the THV regularly to prevent them from freezing up. Install a label near each THV describing how to turn it – a broken valve handle from forcing it in the wrong direction is real problem. Note that the Marelon THV come with disc plugs with o-rings that can be used to seal an intake from the outside in a maintenance emergency by diving and pushing the plug into the valve intake port. Make a checklist for closing your THV when leaving the boat for any length of time.

Hose Clamps

Every hose clamp should be checked by a test torque at least once a year. Many will look normal but can have hidden corrosion and have failed or be near failure. Carry many extra clamps aboard – cheap clamps are a danger. Switch to band-type clamps whenever you can – they are stronger, more secure, easier on hoses, less susceptible to corrosion.

Fuses

A C470 has many circuit breakers – but there are also a large number of fuses aboard. Most of them are not where you would expect them to be and not very obvious, even hidden. Do a survey and build a spreadsheet to track them. Carry spares for all. Consider switching from cylindrical type to automotive plug type as these are easier to replace and universally available.

Schematics

A good set of schematics is a must. Catalina provided a set of as-built schematics for electrical, plumbing, etc. to index owners. But the current "As-Sailed" schematics are extremely important as many owners have made modifications, every year! Today's navigation electronics systems are very complex. An accurate schematic showing power and network interconnects is essential to have readily at hand for troubleshooting.

Labels

A good label machine is an important tool to carry aboard. As you identify a wire or hose – put a label on it so you can find it readily when you are under stress to fix a problem. Buy a large number of plastic color-coded label-holder type wire ties to attach these labels.

Ciao! **–Joe Rocchio**

Air intake to turbocharge on a 4JH3TE engine with the filter can cover removed.

CATALINA 400/445 INTERNATIONAL ASSOCIATION

NMEA to the Cloud

C400 Association Technical Editor Tom Sokoloski

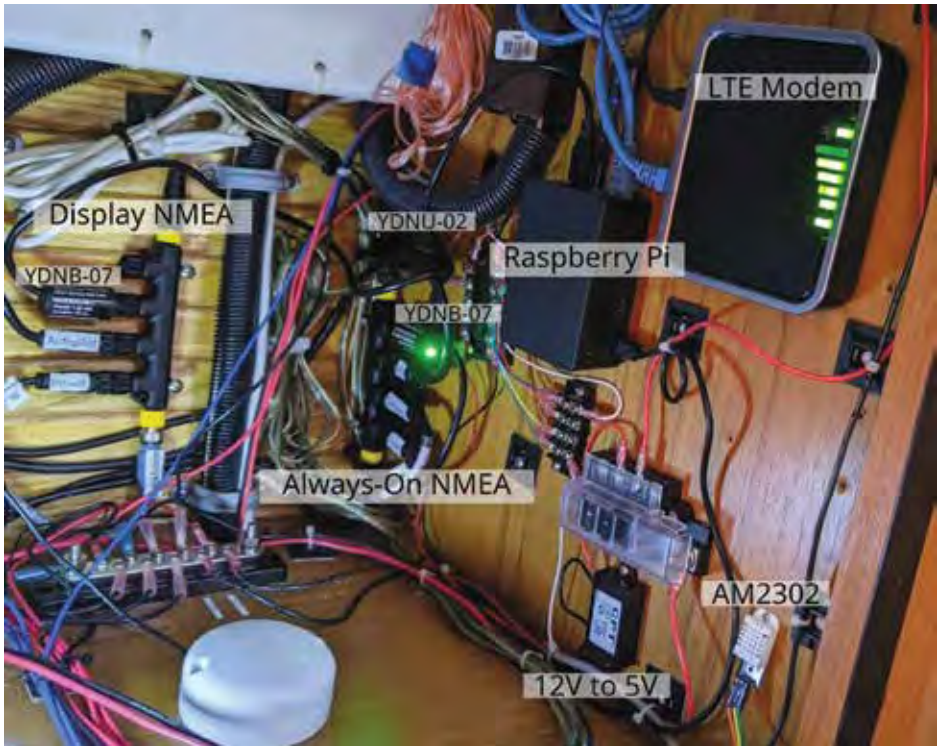
Special thanks to Craig Howard and Bob Kempe for submitting articles this issue.

–Tom Sokoloski,
Juniper #307, Noank, CT,
tomsoko@gmail.com

In the summer of 2019, we welcomed our first child and our autopilot stopped being reliable. Both of these were motivation for a larger boat project, since I wouldn't be doing long trips. For the electronics, I went with B&G after loving SailSteer while crewing on a raceboat. My first goal was a reliable autopilot, because I consider that safety equipment, especially now that we have to keep an eye on a little one. We're based in Seattle on Puget Sound where there's a lot of large boat traffic and it can get foggy. My second goal was an AIS transmitter, as I consider that another safety upgrade.

I'm a software engineer and a large part of my job is looking for patterns of how systems behave in time-series graphs. My fun goal for this project was to produce similar graphs from the boat. Many boat owners have done electronics upgrades and most of what I did there was pretty standard, so I'm not going to spend much time talking about that. My fun goal is where I made some different choices from a standard electronics upgrade and the fun goal will be the focus of this article. While we own a C400 MkII, none of this is C400 specific.

A few things I wanted from this part of the project: the ability to "playback" trips on a Google maps style interface, alerts during the off-season when the dehumidifier or heater weren't keeping up with the weather, and a remote anchor-watch while on-shore eating dinner at a restaurant (remember those?). That meant that I needed continuous internet connectivity from the boat, so I could send stats to the cloud, but it also meant that I needed my transducers and sensors powered on 24/7. However, I didn't want all my electronics powered on all the time; there's no point in having the displays running when there's no-one on the boat.



Radio Cabinet

For internet connectivity, I installed a Netgear LB1120 LTE modem. It can take 12V directly as power. I bought an LTE antenna, but have found that I don't need it in Puget Sound. I got a pay-as-you-go data plan from T-Mobile which gives me 2GB/month of data transfer. Connected to that is a Raspberry Pi 3B+ running Linux. I went with a 3B+ instead of a 4, as the 4 requires more power and more cooling and 3B+ is plenty powerful. Raspberry Pis run off USB power, which is 5V, so I got a 12V to 5V buck converter, which conveniently has a Micro USB output. I haven't yet implemented a graceful shutdown, so I need to be careful with the breakers; I don't want to hard power down the Pi. While it's not strictly required, I found that the Raspberry Pi runs much better off a solid state USB flash drive than off the SD card. (Read the specs, most USB drives are not SSDs.) The Raspberry Pi has built-in WiFi and also acts as a wireless access point to the internet, which has been convenient for firmware updates of the B&G devices. I generally do not connect my phone to the boat WiFi though, because of the limited data plan. The simplest thing is to pick a different network name for the boat WiFi from home WiFi.

NMEA2000 is a single bus, and power is distributed along the bus. But I wanted some devices powered on 24/7 and some only powered on when I was present on the boat. That meant that I needed two buses, each with their own power. I think this can be done two ways. Ancor sells a NMEA2000 power isolater, although I'm a little unclear how termination would work. I went with the Yachtd YDNB-07, which is a NMEA2000 bridge. It's designed to connect to two distinct networks and copy messages between the two. I'm not using it, but there's an SD card slot that allows writing code to filter and transform the messages as they're copied.

On the always-on bus, I have my transducers: the combo depth, speed, and temperature thru-hull, the masthead wind sensor, and compass. The always-on bus has the AIS with attached dedicated GPS. The primary side of the YNDB-07 is plugged into this bus, as well as power from the Nav Instruments breaker. I've now got a protective cover

on the breaker, so I don't accidentally turn this off. The display bus has my Vulcan9 chart plotter, Triton2 instrument displays, autopilot, and secondary side of the YNDB-07, as well as power on the Chart Plotter breaker. This breaker is only on when I'm on the boat.

In addition to NMEA2000 instruments, I've added some additional sensors connected to the Raspberry Pi. I have two hard-wired AM2302 temperature and humidity sensors, one in the radio cabinet with all my electronics, and one in the main saloon. I have three Bluetooth RuuviTag temperature, humidity, and barometric sensors. One is mounted outside under the cockpit table, one is in the fridge, and one is in the aft main cabin. Through the software on the Raspberry Pi, I'm able to push this data onto the NMEA2000 bus, so that it can be viewed on the chart plotter. The barometric reading is the most useful of these.

The brains of the operation is SignalK running on the Raspberry Pi. It has driver software for the YDNU-02, which can read from and write to the bus. (I previously had an Actisense NGT-1, which read from the bus fine, but I had trouble with the ancient Windows program that's required to configure writing to the bus. The YDNU-02 has been plug-and-play flawless.) SignalK provides a bare bones web UI for viewing data, numerous apps, and, most importantly, it defines a schema for presenting data. I believe a previous Mainsheet article has talked about this in more detail.

In order to get my data into the cloud, I wrote a SignalK plugin that takes a snapshot every five seconds of all the state in SignalK (which means everything on the NMEA2000 bus, as well as my temperature sensors), and every minute uploads that to S3 in the AWS cloud. This uses 300-400MB per month of my 2GB T-Mobile internet plan. You can install the plugin I wrote from the SignalK appstore in the web UI; it's called signalk-to-batch-format.

Once in the cloud, I use Lambda to write the data to Amazon Timestream, as well as SNS/SQS to import the latest data to a separate installation of SignalK running on an EC2 instance, using my signalk-from-batch-format plugin, also available in the SignalK appstore. This means that I can use apps on my phone to look at the state of the boat, but my phone is not connecting to the boat, but to the cloud instance. Connecting to the cloud performs better and I don't have to worry about using extra data from my boat data plan. I'm using grafana on my EC2 instance to display time series, as well as generate alerts, including an alert if recent data isn't uploaded.

I've started work on a web app to replay my trips and have an early prototype running. I know there are commercial offerings out there that log trips and I'm sure what I've setup so far would interface with those with a bit of work, but I'm enjoying working on it myself.

For Signalk, check out https://signalk.org My code lives here: https://github.com/c33howard I'll be adding more there as time goes on. I try to keep the README files up to date, for those that want more detail on how the signalk and cloud pieces work. With the Internet of Things (IOT) being the latest buzzword, I'm excited to see what's easy to do in the not too distant future. For now, the pieces all exist to put together for those with a technical background. I've mostly met all my goals, although there's always more to do. If you decide to try this out yourself, I'd love to hear how it's going, what works well, and what needs improvement. **–Craig Howard,** *Hydro Aesthetic*, Hull #244, craig@choward.ca

Grafana dashboard in the cloud


Sailing trips are shorter with 14 month old crew

Parts List:

- Netgear LB1120 LTE Modem – $110
- Raspberry Pi 3B+ – $35
- Homree DC-DC Buck Converter (12V to 5V Micro-USB adapter) – $14
- Yachtd YDNU-02 (NMEA2000 to USB) – $190
- Yachtd YDNB-07 (NMEA2000 bridge) – $190
- SanDisk Solid State Flash Drive SDCZ880-128G-G46 – $40
- AM2302 – $15/each
- Ruuvi Tag 3-pack – $80

Cloud Monthly Costs:

- T-Mobile 2GB data plan $10/month
- Timestream $2/month to write, $2/month to query
- S3 < $0.30/month
- SNS < $0.01/month
- Lambda free-tier
- SQS free-tier

CATALINA 400/445 INTERNATIONAL ASSOCIATION

(continued from previous page)

Stern Arch Project

After purchasing our 1995 Catalina 400 with no electronics and obtaining a complete new suite, I needed to make a decision for the radar dome location. I am not a fan of mast mounted radar for a variety of reasons. That left the aft end of the boat. On our previous boat I had used a Waltz system that consisted of a pole attached to the backstay with a self-leveling platform for the radar transmitter. That worked well and would be a consideration. I also had some other related concerns. I wanted a system to handle the dinghy and motor. There were other antennas and planned solar panels that would need a home. I looked at other boats and queried the Catalina 400 forums. It seemed the majority used davits supplied by one of two companies on the market, and a radar pole or mast mounted dome. I had spent a fair amount of time offshore sailing on a boat that had a custom arch and liked the capabilities it provided. After looking at the mounting complexities and cost of using several disparate systems on the stern of the boat, I decided to go with a custom arch. I found someone local with a good reputation to do the work. I usually plan any major vendor related work to take place over the winter. The vendors have more time and appreciate the income in the off season. We discussed stainless vs aluminum and how the design would look. The cost between using aluminum and stainless is significant, but because of the design benefits I was leaning toward stainless. I thought that we were on track for completion in the spring. Then in late December the gentleman told me he was withdrawing from the project. After a few calls, I knew I wasn't going to be able to line up anyone in the spring rush. Frustrated, but determined to get the project rolling, I started looking at do-it-yourself options. This led me to Atlantic Towers, who offered an arch-in-a-box solution. Their website did not have the C400 listed but had pictures of several similar boats. After much consideration, eyeballing and measuring the decking and cockpit, I decided I could probably make it work. The limitations I observed were that they only offered aluminum and because of the way the tower mounts, there is no clean way to run wires through the tubing directly to the deck. I could live with that. The upside was not having to depend on sometimes unreliable vendors and an available array of customizable options.

In April I ordered the unit. The arch comes in three major pieces and the deck mounts. There is a port and starboard section that is joined in the middle by a center section that bolts the tubes from the two sections together. They supply enough extra length on the base and center sections to be able to trim using basic tools. I had the unit shipped to a friend who owns a business and could handle the delivery and pallet. I then unpacked it and took the sections home in my pickup truck. It was big. I found storage for it in my garage.

The angst was only beginning. I now had to visualize in three dimensions how this was going to work. I had backstays, bimini and stern rail to consider, where the deck mounts would go, how to compensate for the angle of the deck and the placement of the rigging for hauling up the dinghy. How were the wires to be run without drilling big holes in the aluminum tubing? Over the next several months (it was actually fourteen) I would resolve each issue.

It became a community dock project. My dock mates would see me show up with all or part of the arch for yet another dry fit and lend a helping hand. The arch only weighed around 60 pounds, but it was big and awkward to handle. The deck mounting pads I fabricated from Delrin rod stock using cardboard templates to determine the deck angles. Eventually I completed the final fit and install. For the wiring I attached

Arch Assembly Installed with Conduit

some electrical conduit to the arch and ran the wires down to watertight deck fittings. I could not be more pleased with the results. I have the radar (self-leveling), WiFi booster and television antennas mounted. I can haul the dinghy with the motor attached and bring the top of the tube level with the top of the stern rail enabling one to sit on it while underway. I can also climb in the dinghy while it is up and work on the top of the arch when needed. Atlantic Towers

provides add-on mounting kits for wind generators and solar panels. They also have extensions for dinghy davits if needed (I purchased them but did not have to use them). The one noticeable negative impact was to the pushpit seats. The arch does block them a bit.

Aesthetically, I think the boat looks good with it. I could have shortened the height but decided not to. The boat is pretty easy to spot in a crowded anchorage. **–Bob Kempe,** *Drift Away*, Newport, RI

Repairing a Sticking Companionway Hatch

C380/390 Association Technical Editor Todd Gaier

C387 Association Technical Editor Tom Brantigan

C385 Association Technical Editor Chuck Couture

Special thanks to Michael Bryan for submitting this article. **–Todd Gaier**, tgsail1@earthlink.net

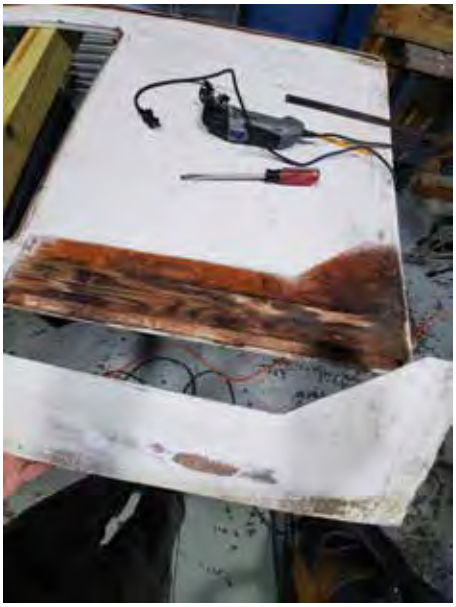
When we purchased *Morning Star* (formally *Jenny Ann*), our 1998 C380, hull #96, in 2017, one of the first problems we noticed was a sticking companionway hatch. It would open about halfway and then bind up. It would then need a good pull to close it, very difficult when closing from the inside. Clearly something had to be done, but what?

My list of winter projects was so long that it was two years before I tackled this one. Once the winter cover was on I removed the sea hood over the hatch and the problems became immediately obvious. I say problems because there were two.

First of all, the Lexan hatch itself had sagged and now was slightly bowed downward in the center. It was rubbing against the fiberglass at the forward edge of the companionway opening which has an upward crown to it. I suspected this was a problem since rain water collected in the center of the hatch and I also could see rub marks on the underside of the hatch at the low spot.

Second, the wood core at the outer edges of the sea hood had completely rotted, causing it to sit down too low and the hatch, now bowed slightly upward at the edges, was rubbing the underside of the hood. It appears there was only a coating of white gel coat over the wood. Someone had tried to solve the problem by driving pan-head screws into the sea hood mounting surface next to the mounting screws, presumably to act as spacers to raise it and provide clearance. Of course with the wood so rotted they did nothing but sink in.

Rotted wood core at edges of sea hood. You can also see the wear mark from the hatch rubbing.



Removing the inner skin

After digging out the rotted wood at the edges of the sea hood I found that water had soaked into the plywood core in the panel and it had started to delaminate. By tapping with a hammer I was able to determine the extent of the delamination and marked those areas with a pencil.

Using a diamond blade on my Dremel Multi-tool I cut through the fiberglass skin on the underside of the hood and removed it, exposing the wet plywood.

I then switched to a wood blade and cut through the wood and removed it. I sanded the exposed fiberglass surfaces to remove any remaining wood fibers. After vacuuming the area thoroughly I left the sea hood on the saw horses for a week with a small space heater underneath to completely dry out any moisture in the remaining core.

The next step was cutting the new core material by tracing out the shapes of the removed fiberglass skins onto 11/32" plywood.

I gave the plywood and the underside of the hatch cover a quick wipe with acetone to prep it for the epoxy. The epoxy I used was West System 105 resin, 206 hardener, and 403 filler for thickening. I had never done any fiberglass work before and was always a little intimidated by the various hardeners, thickeners, etc., but after a little research and getting to know the West System products, I'm not sure what I was afraid of. It is all very easy to work with, especially with their self-metering pumps.

With the hood still upside down on the saw horses I mixed up a generous amount of un-thickened epoxy and gave the underside of the coring a light coating. I wanted some penetration to ensure good adhesion. I then added some filler to thicken the remaining epoxy to the consistency of apple sauce and spread it on the fiberglass where the plywood core would bond. After putting the wood in place I lightly clamped it and added weights to make sure it was well bedded into the thickened epoxy, but not so much that the epoxy was squeezed out resulting in a dry bond.

After allowing this to fully cure I repeated the process with the removed fiberglass skins; un-thickened epoxy on the plywood, thickened on the fiberglass, then assembled and clamped.

After allowing this to cure I set the sea hood up on its side and coated the exposed edge of the wood core with

CATALINA 380/387/390 INTERNATIONAL ASSOCIATION

(continued from previous page)

Bonding the new core in place

Sealing the edges of the new core

Wood with first layer of 2 inch woven tape

un-thickened epoxy. The idea here was if water ever again infiltrates the wood strip at the outer edge it will be prevented from getting to the main core.

The next step was to cut the wood strips for the edge core. I chose a thickness that would be a little high, by about 1/8". I was trying to avoid shimming the sea hood in order to provide enough clearance for the hatch. I taped off the underside of the screw holes and spread some thickened epoxy into the space, bedding the wood strips into the epoxy and lightly clamping to make sure there were no gaps. When this was cured I worked un-thickened epoxy into the gaps along the sides of the wood strips.

The following weekend, needing an excuse to check the boat, top up the batteries, and enjoy some time in my winter "man cave", I took the hood to the boat and checked the fit. First I removed all the "spacer" screws and marked the holes with a Sharpie. These will be filled as soon as the weather gets warm enough for epoxy. With the sea hood in place there was enough clearance, even with the warped hatch. Feeling confident about the repair so far, I brought the hood back home to finish it. I also brought the hatch back to use as a template for making a new one, the possible subject of another article. The companionway opening was covered with a scrap piece of 1/4" luan plywood just in case my boat cover leaks.

Back in the heated shop I fiberglassed over the wood strips using 2" woven fiberglass on the first layer and then 1" on top of that. Again I brushed a thin coat of un-thickened epoxy on the wood before laying on the wetted out tape. I'm not sure this is required but it seems like it would guarantee a good bond and doesn't add that much time.

To seal the screw holes I drilled them out to 3/8", taped the bottom of the holes, (the outside of the hood), and filled these with epoxy. I then drilled the center of these epoxy "plugs" to the original 3/16" screw hole size. I actually did this before the finish fiberglass, requiring me to drill through a second time, but it could have been done after.

I chose not to gel coat over the repair since it is all hidden and I don't mind, in the future, being able to see what repair was done.

There now should be no way for water to get at the core and I expect this repair to last the life of the boat.

I'm looking forward to this coming sailing season and not having to explain to guests that if they open the hatch too far it will get stuck. **–Michael Bryan**, C380, #96, Rock Hall, MD

Note from Catalina Yachts:
Warning – after using epoxy to repair the sea hood, beware that polyester will not adhere to epoxy later.

CATALINA 36/375 INTERNATIONAL ASSOCIATION

Renewing Your Potable Water System

C36 Association Technical Editor Pre Mk II hulls Leslie Troyer

I conducted a poll on our Facebook group on topics for the column, the winner was potable (fresh) water line replacement. As a reminder – I cover the early 36's so Mk2's are somewhat different, additionally my boat has been thru many owners, so what I assume is stock – may be different than your boat. I've personally only replaced the tubing in the head area and minor work around the hot water heater.

As always, safety is a prime consideration, so there will be some upgrades to improve safety!!

Our water systems have two main materials for hose/tubing to deliver fresh water to the two sink faucets (and shower if updated). The first of these would be similar to Trident 161 – reinforced PVC hose (FDA approved for water). This hose connects the tanks to the water pump. A one way valve in the pump prevents pressurized water from flowing back into the tanks when the pump motor isn't running. I can hear all you saying – nope – the tanks first go to a valve manifold for selecting which tank is used first. Sorry, that is something Catalina added sometime after my boat went into production (a nice to have). The second type material is PEX or PEX like tubing. This connects to all the devices after the water pump, including the shore inlet located back by the shore power (who thought power & water are good partners?). The shore water inlet, should have both a check valve (one-way) and a pressure reducer, usually located close the inlet, mine could be accessed via the sliding door in the aft berth.

The PVC hose uses the standard barbed fitting and hose clamps for securing the ends to the tank and water pump. The centerline tank is easy to access, just aft of the stuffing box. I have no idea where this line meets up with the starboard tank, but if I was replacing these lines – I'd run them to a valve manifold (this is typically put in the cubby under the stove) so you don't lose all you fresh water if there is a leak somewhere past the pump. The starboard tank requires a lot more work. Searching the Catalina36.org web site I found how Wally-1840 solved it, a large access plate cut in behind the help seat. The galley sink is another area that is hard to get to. You can either remove the bank of drawers below the sink – or cut an access hold just forward of the galley sink. See photos. Do you need to use PVC Hose for this?? I would recommend a short piece at the tank end then transition to ¾" PEX for the rest of the

CATALINA 36/375 INTERNATIONAL ASSOCIATION

(continued from previous page)

run (lots cheaper). The short length (~8-12") will reduce the stress on the tank fittings over using straight PEX. How much PVC hose you need depends on if you have a manifold or not. Just a guess but most likely around 30' (measure before you buy!!), or if you go with PEX a 50' chunk.

PEX

If you haven't worked with this material before – you're in for a treat. You do need some special tools to cut it cleanly (under $15) and a swaging tool ($30-$80) if you don't go with the push on fittings. Let's look at the type of PEX marine fittings – push to fit, expansion and swag/crimp.

Expansion fittings are what Catalina used on my 1983. They are not suited for DIY applications.

Push to fit fittings have become quite common and big box stores have a big selection for home use. They use o-rings and one-way fingers to seal on the outside of the tubing. If the outside of the tube is nicked, or if the tubing is cut poorly you'll have a leak (maybe not now but sometime). Poorly cut tube will cut the o-ring resulting in an immediate leak. The good thing about these

fittings is you can use a special tool ($1-2) to remove the PEX tubing from the fitting. NOTE: you cannot use push fittings where Catalina used heat shrink fittings. Because the tubing crimps to the outside of the tubing, water flow is not restricted at the fittings. Watts Aqualock (SeaTech) brand fitting are preferred over Sharkbite and other big box brands. Be sure and use the clips to prevent pull out.

Swage/crimp fittings are more like the hose and hose clamp fittings. The tubing is either crimped or swaged on to a "barbed" PEX fitting. Unlike a hose fitting PEX fittings insert very easily into the PEX tubing. To assemble one of these joints you put a crimp ring over the tubing, insert the fitting then crimp/swage on the fitting. Crimps and Swages are two different methods of clamping the PEX to the fittings. Crimps are stainless rings that use special "pliers" ratchet down on the PEX. The Swages use a copper ring that is compressed over the PEX(similar to rigging fittings). Swage tools look like big bolt cutters and are hard to get into tight spaces. Crimps can be destructively removed,

without damaging the PEX or the fitting. Swaged fittings are typically not removable and always destroy the PEX when removed.

California has some specific laws on prepping PEX for usage in potable water systems, involving running for 10 minutes to clear the lines and leaving the lines full for a week before flushing again. Consult your local codes for specifics. (note – there are no such rules where I live in Washington State).

What do I recommend??? I think Watts push on fittings are a great choice – just be sure and don't damage/scratch the PEX or put stress on the fitting. On the areas I've used PEX on the boat I've used copper rings and brass fittings. I just figure if the joint is forever, it's hard to go wrong.

PEX comes in three different colors – translucent white, red and blue. The red and blue can be used to differentiate hot and cold lines, but I used all white for less wastage. PEX comes in rolls of 25', 50' & 100' or in straight lengths of 10'. The straight stuff is lots easier to work with as its not trying to curve while you're trying to run running it thru the boat. PEX also comes in Metric and Inch sizes – Mixing the two will cause leaks using the push to fit connections – I've only used the 1/2" size.

Make a list of the fittings you need, look at your existing system – most will be ½" NPT, female for the faucets & water pump, male for the water heater or simple "T" and 90's for the PEX system you use.

California has some specific laws on prepping PEX for usage in potable water systems, involving running for 10 minutes to clear the lines and leaving the lines full for a week before flushing again. Consult your local codes for specifics.

Now for the Safety –

I highly recommend adding a Thermostatic Mixing valve to the output of the Hot Water Heater. While the heating the water with electricity the temperature can be regulated below scalding, unfortunately when using excess engine heat, the temp can soar to 180+, leading to some bad burns if you're not careful. The mixing valve adds cold water to the heated water to bring it to the desired temperature. Remove one male fitting from your list and add two female fittings and one PEX T. You can screw the H terminal of the mixing valve directly into the water heater. Cut into the cold inlet for the water heater, insert the T, then run the open leg to the C input on the mixing valve. The arrow outlet goes to the hot water line you removed to attach the mixing valve to the water heater. Sounds more complicated than it is. Set the valve for ~49 degrees Celsius (I've not seen any marked in Fahrenheit).

System Improvements

The following improvements have many pages of elaboration on our web site Catalina36.org Our potable systems can be improved, does your water come out of the faucet in pulses rather than a nice steady stream, does your pump run the second you turn on the valve? The water pumps used on our boats did not come with accumulator tanks. This is a small tank that has air on one side and water on the other, separated by a rubber bladder. This can be had for $80-$200 (and up) depending on size and material. The larger the tank the smoother the flow, but too big and you won't find a place to put it. To install add two more fittings to your list (highly vendor specific), and splice it in anywhere after the water pump (aft behind the sliding access door in the aft berth is a great place if not already occupied.

If you have an early boat – you most likely pull water from both tanks at the same time. Installing a selectable tank valve manifold helps conserve water, as well as a safety in case there is a leak. As stated above people have put these manifolds in the cubby under the stove, but also in the tall cabinet under the galley sink, and just forward of the hot water tank on the sette bulkhead. Search the web site for details.

It looks like the shore water input was factory installed on my boat, but I know it wasn't on some. This allows pressurized water from your dock to feed your system. It connects in after the water pump, so backflow to the tanks should be eliminated. They should also be fitted with a check valve and pressure reducer. I also installed a inline valve before the line hooks into the main system as a fitting developed a slow leak where it was hard access. NEVER EVER leave the water on when not at the boat. There are several documented cases of boats sinking due to failed fittings.

Shower faucet – quite a few boats have been modified to have separate hand held shower and sink faucets. This involves adding a standard shower mixing valve and a hand held shower wand. Again lots of info on our website.

CATALINA 350 INTERNATIONAL ASSOCIATION

C350 Association Technical Editor Scott Monroe

Here is to a peaceful night sleep! While an electric flush was a big plus over the squeak of a manual Raritan head, the noise from the electric pump could wake the dead and did! Thanks to John for showing us all a path to quieter night.

Everyone else, please keep those submissions coming. Your projects and experiences are benefit to all in the C350 family. **–Scott Monroe,** Southern Yankee #409, scott_monroe@verizon.net

Head for a Quieter Night Sleep

Sleeping onboard a boat tends to be relaxing and soothing as the gentle waves rock you to sleep. You just hope no one needs to get up during the night to use the toilet. The flushing sound could wake the dead! My wife and I had gotten used to the loud sound of the flush, but when overnight guests hesitated to use the bathroom during the night, I decided it was time to see what could be done to improve the situation.

I replaced the aging Raritan Sea Era electric head with a Raritan Marine Elegance Pressurized Freshwater head. The Marine Elegance is quieter & all hoses are now hidden. It looks great and has operated flawlessly for two boating seasons. Using fresh water eliminates the "rotten egg" odor. While it does increase freshwater usage, as the bowl is refilled from the fresh water supply, we found it not to be an issue. One unexpected consequence is the freshwater pump runs with each flush which does create some cabin noise, but far less than the original toilet. See image with finished project and inset image of controller.

Finished project with optional controller shown in inset which was mounted under vanity sink.

The Raritan instructions and their customer support are excellent, so don't be afraid to take on this project! I followed the instruction manual and have provided some details specific to the Catalina 350.

I purchased a standard angle back Marine Elegance Toilet (Model: 221HF02401). The angled back allows space for the two hoses and toilet footprint on the raised deck. I also purchased the STC Smart Toilet Control approximately $130 add-on. The Smart Control Flush provides a water saving flush pattern based on whether solid or liquid waste and makes the wiring installation easier. I used the pressurized freshwater system as it was the easiest option to install. Another option is to install a separate freshwater tank beneath the port settee with a separate pump to supply the toilet.

I chose to connect the Maine Elegance Fresh Water toilet to the boat's pressurized freshwater system. To provide separation between the pressurized freshwater system and the wastewater the toilet comes with an integral vacuum breaker. Between the electrical solenoid valve which is only open to supply water and the vacuum breaker there are two barriers to prevent cross contamination. It's important to note that ABYC standards suggest that "The potable water system shall be designed and installed so that the potable water is totally separate from any contact with the water used for other purposes – H23). I confirmed with Raritan technical support services that the vacuum breaker is the primary means of separation.

Materials required: 8' of RaritanSani/Flex hose (see note), a method to tap into the fresh water system. I used a plastic ¾" "T" fitting that was compatible with the sink cold water line and faucet fittings. Another option is connecting to the fresh water manifold in the bilge which would require more reinforced hose,10' of ¾ " reinforced hose to connect the fresh water supply toilet, 1" & ¾" plastic "T's", various hose clamps, 6' of #10 wire, electrical tie wraps, waterproof stakons to fit #10 wire & mounting screws. NOTE: The Raritan Sani/Flex hose is great, although it is quite expensive.

Some tools I found useful were a large hole saw, battery powered drill, various drill bits, sabre saw, voltmeter, wire cutter, stakon tool, string, heat gun, various wrenches & work light.

The project is 9 steps:

(1) Assemble tools, materials & instructions
(2) Shut off AC & DC power
(3) Remove access panel, hoses and old toilet
(4) Cut access hole in head bulkhead
(5) Tie into fresh water system
(6) Size, pull and connect (one end) fresh water feed & waste hoses
(7) Install Smart Toilet Control Panel and Smart Toilet Control Box complete with electrical connections
(8) Install mounting bracket and 90 degree fittings on toilet inlet & discharge ports
(9) Install toilet, connect waste and fresh water supply hoses and fresh water solenoid valve electrical connections

The first step is to remove the remove the small panel above the toilet which provides access the top of the holding tank. This is where the discharge hose from the toilet connects to the waste holding tank. This little panel can be very tough to remove. I had to knock it out with hammer.

With the panel removed you now have access to the waste hose connection from the waste holding tank. After dis-

Panel had to be removed to gain access to holding tank.

connecting the hose, I sealed off the top of the holding tank to minimize odors. At this point I would check the holding tank vent line to be sure it's clear by removing one end and checking the vent hose is not blocked. It is much easier to access the vent piping when the head discharge hose is out of the way.

Prior to removing the toilet, I pulled the water out with a turkey baster and then disconnect the waste hose from the toilet. Be ready with bags and a bucket, don't want any in your bilge or … While disconnecting the power leads leave as much exposed as possible. I tied the two wires together as I was concerned I might lose them. These wires are used to power the new head. The existing breaker in the DC Distribution panel is 25 amp which is the correct size.

I made a hole in the bulkhead behind the toilet using a hole saw to provides a path for the waste hose and the fresh water supply hose. Careful with the pilot bit as the hull is close to the bulkhead. Raritan suggests that you should drop the discharge hose straight down from the toilet discharge port which I found to be impossible in the C350. A better solution for me, was adding a 90-degree fitting on the toilet discharge port & drill a hole in the wall directly behind the toilet providing a path from the toilet discharge port to the holding tank. The discharge hose makes a large loop in the holding tank area and although flexible it is quite strong. The

Toilet removed with sufficient length wires to be reconnected.

hole was also large enough to include the water supply hose. The hole and the hoses are not visible as they are hidden behind the toilet. Fitting the waste hose so that it minimized bends reducing

CATALINA 350 INTERNATIONAL ASSOCIATION

(continued from previous page)

Hole behind toilet was drilled to accommodate both discharge hose and water line.

stress on the very flexible toilet discharge port was the most difficult part of the job.

I added a "T" to the head sink cold water supply line. This fitting was found at a local marine store which was compatible with the sink and hose connections. The reinforced hose was routed from the "T" connection under the sink, below the deck and through the newly cut hole in the bulkhead. The reinforced hose was cut to final length when the toilet was in place.

T connector to freshwater line.

After attaching the discharge hose to the waste tank, my main concern was to minimize strain on the very flexible waste toilet discharge port, so I attached a small piece of waste hose with a 1" 90-degree fitting to the waste discharge port. A similar transition piece and ¾" 90-degree fitting was also added for the fresh water hose (see image 4). An alternative is to buy a Thru Wall Discharge Kit from Raritan.

I mounted the control panel on the bathroom cabinet just below the sink close to the head after removing Raritan Sea Era control button. I connected the two wires that were previously tied to the control button. This wire is the positive power feed to the toilet via the Control Box which was mounted on the forward bulkhead inside the holding tank enclosure.

The electrical connections are outlined in the instructions. I connected the 10-gauge wire to the existing red and black wires from the original Sea Era toilet. I then snaked these wires to the smart control box and attached them to the negative and positive terminals per the instructions. I used the provided wires to connect from the Smart Control Box to the Smart control Panel. The remaining wires, also provided, from the Smart Control Box to the freshwater valve can be attached to the Smart control box now and run to the toilet location. They will be attached to the toilet when it is in place.

I mounted the toilet following the instructions provided by Raritan. The mounting bracket is custom made to fit each toilet which may not look quite symmetrical. Don't worry it will fit!

Next, I connected the 1" waste disposal and ¾" freshwater hoses to the toilet and connected the two wires to the fresh water solenoid valve and the two wires to the discharge pump. I secured the toilet in place per the Instructions.

I turned on the freshwater pump and tested the toilet and inspected for leaks. Success! All said and done, I spent approximately $700 on the project which is well worth peaceful sleep.

I have been incredibly happy with this toilet and the fact that there are no visible hoses is a real plus! **- John Ferguson**, *Interlude*, #316 New London, CT. jhferguson22@sbcglobal.net

This Old Bull Got a New Coat

C30/309 Association Technical Editor Michael Dupin

Special thanks to Billy Scarbrough for submitting this article.
–Michael Dupin, dupin.catalina30@yahoo.com

With *Mainsheet* Magazine, only the best will do, same as with the products used to produce the phenomenal finish that was applied to this gorgeous Catalina 30! Raging Bull now flaunts a crisp Awlgrip Aristo blue topcoat with federal yellow striping and Interlux Ultra black bottom paint. Here is how it was done.

If you go to any marina, you'll find buckets of vessels with the plain ol white gelcoat. Being so, it was time to break off from the sea of white and bring in some color. The color scheme came as a suggestion from a boat neighbor, Ben Miller, who just so happened to also be the owner of the boat shop at the marina (B.M. BoatWorks of Seabrook Texas) and was more than willing to help me break away from the standardized white and make this transformation a reality.

Preparation Work

As with any work done on boats, it's all in the prep work. First off, they did a very thorough bottom wash and scraping to remove any bottom growth, in this case slime and a couple oysters. Next up to bat, they used 8-inch 50 grit sanding discs, aggressively persuading most of the old antifouling paint to come off and rooting out blisters for repair. It just so happened that the timing was good, some had just popped up in the last haul out.

Next in line was the topside. More sanding was required to remove the old oxidized gel coat. They used 3M 80 grit which did the trick quite nicely, plus provided an excellent binding surface for the new colors.

They also completely encapsulated the deck, like shrink wrapping in the North during the winter. Other boats nearby were also wrapped to protect them from the overspray (very fine paint mist floating long distances).

Repairs and Paint

Since the boat was out of the water, now was the time to make any repairs to the hull below the waterline before the paint is applied. This 'ol bull had only a few blisters, but the ones it did have were quite large (some the size of a grapefruit, no kidding). Along with the blisters, we discovered a small damaged area by the keel that was easily repaired. The damaged areas were ground out to fresh fiberglass, cleaned, and dried. All this sanding to prepare for the new color of the hull became a great bonus to assess the state of the hull behind the layers of past paint.

Once all the repairs had cured, the yard did a good sanding to blend them into the surrounding surfaces and rolled on a couple coats of Interlux Ultra black antifouling paint to keep the bottom of the boat from becoming a floating reef. Things really began to take shape with the first coats of paint. Raging Bull was back!

With the topside taped and masked off to prevent overspray, a first coat of grey epoxy primer was sprayed on and sanded pretty much completely. There was a good reason for that. Bumps were taken care of by the sanding, but any low spots would still remain. Any paint that hadn't been reached by the sander was now showing where any filling was needed. Pretty smart! Aristo Blue Awlgrip is very glossy, so it was crucial to have as smooth a surface as possible to get to the final, mirror like glassy shine.

Once the blue paint was finished curing, the top and bottom stripes were sprayed between the protective painter's tape. The waterline and the stripes were moved six inches higher to give the appearance of the boat sitting higher on the water.

I'll admit, yellow isn't on my list of favorite colors, but, Awlgrip's Federal Yellow from the stripes do pop loudly, with just the right amount of contrast against the deep blue of the hull and draw the eyes in for a closer look. With the teak color and the white of the deck, the blue and yellow gives the boat a very classic color pallet.

On a technical note, all the spray work was accomplished with a pressurized paint pot. This precursor to the more modern HVLP spray painters (where the paint is in a pressurized container that feeds the spray gun by a hose) it was a surprise but I dare say

Raging Bull was looking tired.

CATALINA 30/309 INTERNATIONAL ASSOCIATION

(continued from previous page)

The mirror like reflection is eye catching. Once all set and done, the before and after is unreal!

that, with this shine, old school tools still have the touch to get the job done right!

Finishing Touches and Final Words

Before the 'ol bull floats back across the yard to be splashed, the hull was looked over for the inevitable paint imperfections, such as runs or sags and addressed accordingly. These guys certainly made sure it was right as rain before moving on to the next project.

Ben and I used peel and stick vinyl to make up the registration number, the vessel name and bull on the stern. I am particularly pleased with the fact that the yellow is a spot-on match to the striping along the hull. We deliberately offset "bull" from "raging" to add a sense of motion and the bull adds a touch of flair.

The contrasting colors really go well together!

Raging bull is now back in the water and looking awesome in the new colors. We all had planned for the paintwork to be finished in approximately four days, but little did any of us know that the February cold snap that was predicted would turn into the devastating icing event that it did. Four days turned into nine days in total on the hard. And I was lucky as well, the hard fees were waived due to the inclement weather! All set and done, this cost me roughly $5,000. Money well spent, especially to have discovered and repaired the blisters and cracks on the hull.

About the Author: Billy Scarbrough sails "Raging Bull", a Catalina 30 from 1979 (#1325) out of Seabrook, Texas. Billy is new to the world of sailing and loving it to its fullest. When not turning wrenches on sailboats for his day job, he can be found tinkering on Raging Bull, sailing on the bay, or helping out another marina neighbor.

CATALINA 28 INTERNATIONAL ASSOCIATION

Overhauling a Raw Water Pump

C28 Association Technical Editor Ken Cox

As many of our boats are starting to get some hours and deeper repairs become needed, here is Ray Taylor's description of having to overhaul his Sherwood raw water pump. I know that many have changed over to Obie pumps due to the easier replacement of the impeller. Personally, I have had both and still feel the Sherwood is the more robust pump. To save space his photos can be seen on the Catalina 28 website. Following is Ray's comments. **–Ken Cox**, kenneth_cox@sbcglobal.net

The pumps operation is simple but seal leaks should be addressed quickly. Should a seal leak, it allows raw water (either fresh or salt) to enter the bearing housing. The housing has a drain hole and a slinger ring to push water out of the housing (it also makes leakage more visible).

The overhaul kit arrived for the Sherwood G908 raw water pump yesterday. From opening the parts bag to completing the overhaul took about 2 hours. Much of the time was used figuring out the next step. I also lathe turned some aluminum stock used to press the bearings and the mechanical seal. The instructions suggested using sockets and PVC fittings for this purpose.

My pump has 1100 hours and the current impeller is about 3 years old. The seal was not leaking and this job was done as preventative maintenance. The seal face showed 30% to 40% wear as compared to the new seal. Both the bearings and impeller were ok. Sherwood technical support wasn't able to provide a service schedule for this pump (although they were very helpful) so I'll stay with an overhaul every 1000 hours with impellers every couple of years.

The pumps operation is simple but seal leaks should be addressed quickly. Should a seal leak, it allows raw water (either fresh or salt) to enter the bearing housing. The housing has a drain hole and a slinger ring to push water out of the housing (it also makes leakage more visible). If the leakage

CATALINA 28 INTERNATIONAL ASSOCIATION

(continued from previous page)

continues debris (either salt or rust) could clog the drains. Pump pressure would allow water to migrate into the sealed bearings. How long the sealed bearings will remain sealed is anybody's guess. Water into the bearings is bad, but even worse is that the water could pass through the bearings past the oil seal into the engine. Note the oil seal is designed to keep engine oil out of the pump not the other way around.

I used a hydraulic shop press and lathe turned bushings to press the bearings and seals. Most of the online tutorials use a bench vise or large clamp and sockets. A press is the better tool but I'd use a vise if I didn't have something else. That said, pressing the seal onto the pump shaft is fussy work. If I was using a vise and a socket, I'd order an extra seal face along with the kit. These are hard faced plastic on a rubber base that is press fitted to the pump shaft and could easily crack.

The raw water pump overhaul is within the scope of the typical boat DIY'er. The parts kit includes everything except the pump housing and shaft. There is a progression to the repair that is not completely obvious. Feel free to contact me if you have any questions. I took a couple photos and could easily walk you through the project. **–Ray Taylor**

Wiring Modification to Indicate Oil Pressure

Bob Thomas with a 97 MKII #498 was dealing with intermittent false alarms on oil pressure and did a wiring modification to send a signal to the fuel gauge to give an indication of actual pressure. Here is how it worked out for him. Full installation details are on the website. **–Ken Cox**, kenneth_cox@sbcglobal.net

I started my 1997 Mk II prior to sailing today and the low oil pressure alarm continued to sound after it was running.

Some might remember the *Mainsheet* article submitted in the Fall of 2017 "Putting Pressure on the Fuel Gauge".

I was not sure if it was a false warning or a real no oil pressure warning.

I flipped the momentary toggle switch which converts the fuel gauge into an oil pressure gauge.

I read 1/2 or 55 lbs. so I knew it was a false indication.

This was the first time I needed to use the switch in a real-world situation to check the actual oil pressure.

I was able to trace the problem to a bad oil pressure switch.

Proper function is 11 psi of oil pressure puts power across the two switch terminals silencing the alarm and light.

Another tid bit again from Bob Thomas after much discussion on the website regarding gear selection when sailing.

I was told by a rebuilder that there was no lubrication while running in neutral because only the upper input shaft was rotating. It was stated because of the immersion-lubrication, only the input shaft is spinning. long periods of idle will damage the bearings from lack of lubrication. Your question made me look into if the above was correct. Looking at the parts breakdown lower gear unit on the 50, it seems it would rotate in neutral.

I looked at mine through the filler plug with an endoscope camera and the oil immersed lower gear assembly DOES rotate in neutral which WOULD provide the necessary lubrication. What I have been told was INCORRECT about having to periodically put in gear during long idling to prevent damage from lack of lubrication.

I have mentioned this in the past but is worth mentioning again. A further point of reference about the Hurth HBW-50, there is a lot of discussion about sailing in reverse only to prevent damage of the transmission. I have researched this topic and the conclusion I have come to is that damage WILL occur if you leave in the gear that you are traveling in.

Example: leaving in forward if you are sailing will cause damage but not neutral or reverse. If you are sailing you can place in neutral or reverse but NOT forward. This is also stated in the manual. I think many premature slipping transmission failures are due to this oversight along with mis-adjusted linkage and lack of oil maintenance. Sailing in Neutral with my 3-blade prop will give me an additional half a knot in speed while sailing. The shaft spins slowly in neutral and is locked in reverse.

The damage that is caused when it is left in forward while sailing comes from the clutch plates locked in forward position. The shaft WILL spin in the opposite direction when locked in forward while sailing. The force of the water rotates the shaft in the reverse direction causing the clutch friction plates to slip the whole time you are moving damaging the clutch friction plates. This can be demonstrated by placing your shifter in gear while the engine is off. Try turning your prop shaft by hand in the reverse direction and you can feel the resistance of the slipping clutch plates while turning. I wasn't aware the shaft could turn when locked in gear. I discovered this while removing my prop, then the possibility of clutch damage all made sense.
–Bob Thomas

If you are sailing you can place in neutral or reverse but NOT forward. This is also stated in the manual. I think many premature slipping transmission failures are due to this oversight along with mis-adjusted linkage and lack of oil maintenance.

CATALINA 25/250 & CAPRI 25 INTERNATIONAL ASSOCIATION

Breathing New Life Into the Standard Analog Battery Tester

C25 Association Technical Editor
Seth Martin

C250 Association Technical Editor
David Gonsalves

Capri 25 Association Technical Editor
Position Open

Special thanks to Jim Cooke for submitting this article.
–Seth Martin

Are you tired of guessing what the reading on your analog voltage meter actually is? Well, now you can do something about it. It should take you about an hour or two. Before and after pictures are shown below. With only a few tools, you can replace your analog meter with a digital LED display. Normally converting to digital requires a bit more work, but thanks to the availability of a two wire self-powered voltage display, it is very straightforward. Caution: Before attempting any modifications, make sure that power is not present on the battery tester panel. You can confirm this by simply toggling the rocker switch and verifying no reading.

My battery tester was wired directly to the 12V batteries and the battery charger. If this is the case for you, for safety you should disconnect the battery and charger. Figure 1 shows the wiring diagram. On the left of the dashed vertical line is the original circuit. Normally the rocker switch is in the off (centered) position. Toggling it to one side or the other, connects it to the respective battery. The analog meter requires a limiting resistor on its path back to ground. The resistor is not needed, and needs to

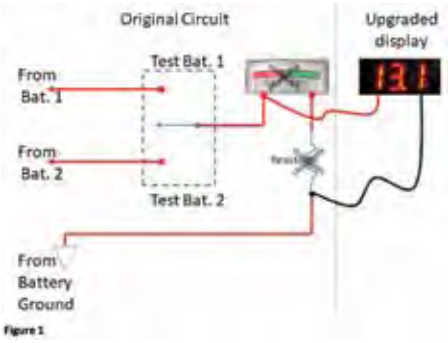


Figure 1

be removed for the digital version. The heart of the digital upgrade is the panel mount LED DC voltmeter part # 19598 ME from www.MPJA.com. The cost is under $4.

The electrical upgrade is very simple. I soldered my connections, but you may choose to use crimp terminals. Figure 1 shows the two components that are being removed highlighted with an "X"

CATALINA 25/250 & CAPRI 25 INTERNATIONAL ASSOCIATION

(continued from previous page)

through them. I started by disconnecting the wire from the analog meter, the one that goes to the center terminal of the switch. I then soldered this wire to the Red wire from the digital display. Next, I unsoldered and removed the resistor from the ground side. The resistor is not required for the digital version. Lastly, I soldered the Black wire from the digital display to the ground wire (that used to have the resistor attached to it).

That is it for the wiring part. I mounted the new LED display behind a piece of 1/8" dark smoked acrylic from a TAP Plastics store. If you don't have a TAP near you, they will ship. TAP typically provides low cost 4" X 4" samples, which is more than enough to share this upgrade with your boat buddies. My challenge was the hole in the fiberglass, behind the Battery Tester panel. The opening was a little tight which made the cut-out of the acrylic more challenging than anticipated. I bent a bracket to hold the new LED meter against the Acrylic. I used .19" aluminum available from typical hardware stores. You want to cut and bend the aluminum to form a captive bracket to hold the new display. Since the LED Voltmeter has circuitry on the back, you want to make sure you insulate it from the metal bracket with several layers of

either electrical tape or similar, as shown in the picture below. You will also need to drill holes in the acrylic and metal bracket. These will line up with the original analog meter holes in the panel. I used ½" 2-56 machine screws and nuts. Once you have everything in place, it is time to test it before reinstalling.

To test, simply temporarily connect the battery terminals, and move the rocker switch to verify the new display comes on and displays each battery voltage. The two wire display requires voltage between 4 and 30 volts. If yours is not displaying at all, you can use a standard 9 V battery to test the display itself. If the display seems to be working, go back, check your connections and make sure that the black wire to the new display is connected directly to the battery ground and NOT through the resistor the original analog meter required. **–Jim Cooke**, *S/V Flying Doghouse*, C25 # 6030

Association News

News That's Specific To Your Catalina

Catalina Fleet Rosters

We are printing one point of contact for each fleet (a phone number, email address, OR website address). Fleets are a great way to learn about rendezvous, cruise ins, raft ups, tours, and concerts in your area. *Mainsheet Editors, make sure to submit your current info in this format next issue!*

CATALINA 36/375 FLEETS:

C36/375IA Board Member, Fleet Relations
byrontobin600@hotmail.com
#1, Santa Monica Bay, CA
smwyc06@gmail.com
#2, Long Beach
mbierei@pirnie.com
#3, Chesapeake Bay
wjhomes@zoominternet.net
#4, Puget Sound
rodj2@msn.com
#5, Long Island Sound
tjl2000@optonline.net
#6, San Diego
dmumby3@cox.net
#7, Lake Ontario
crew@ceibaone.ca
#8, New Jersey Coast
calypso36@comcast.net
#9, San Francisco Bay
jennai1@sbcglobal.net
#10, Gold Coast (Ventura & Channel Islands)
jshapiro@kirkhill-ta.com
#12, Punta Gorda, Florida
byrontobin600@hotmail.com
#14, Low Country (S. Carolina)
byrontobin600@hotmail.com
#15, Lake Texoma
byrontobin600@hotmail.com
#16, Texas Coast
byrontobin600@hotmail.com
#17, The Netherlands
e.scheffelaar@marineobjects.nl
NEW FLEET – Lake Huron / Cheboygan, MI
jenweber33@charter.net

CATALINA 34/355 FLEETS:

#1, San Francisco Bay
C34irvine1383@comcast.net
#12, Chesapeake Bay
fpoa34@aol.com
#13, Lake Lanier Georgia
toneydot@me.com
#14, Florida East Coast
bob@s-i-inc.com

CATALINA 30/309 FLEETS AND ALL CATALINA FLEETS WITH C30 MEMBERS:

#1 San Francisco Bay, CA
www.southbeachyachtclub.org
#2 Marina Del Ray, CA
800.501.1378
#3 Long Island, NY
http://www.l-y-n-c-h.com/IC30F3
#4 Lake Erie, OH
jpaint412@msn.com
#6 Seattle, WA Tacoma & South Sound, WA
http://home.earthlink.net/~catss
#7 Tampa/St. Petersburg, FL
AV8RSailor@verizon.net
#8 Long Beach, CA
http://www.cat30fleet8.com
#10 Galveston Bay
www.fleet10.com
#11 Chesapeake Bay, MD
www.sailccyc.org
#12 North Atlantic (MA)
www.allcatalinane.org
#13 San Diego, CA
www.sdcatalinaassoc.com
#18 Long Island Sound (CT)
www.saillisca.com
#19 King Harbor, CA
czamites@aol.com
#21 Chicago, Il
www.catfleet21.org
#22 Puget Sound, WA
www.capsfleet1.com
#24 San Pedro, CA
jerinbill@roadrunner.com
#26 Lake Texoma, TX/OK
512.835.8680
#27 Barnegat Bay, NJ
(no contact)
#28 Lake Ontario, NY
www.loca.ac
#29 Chelsea on Hudson, NY
salcerniglia@optonline.net
#30 Hampton Roads, VA
http://fleet30.org/index.htm
#31 Clinton River, MI
drpost6290@yahoo.com
#32 Lake Lanier, GA
rrose@deltaenv.com
#35 Southwest Florida
(see Fleet #7)
#36 Lake Perry, KS
913.677.3143
#37 Vancouver Island, BC
gm@bonnor.com
#38 West Michigan, MI
http://www.lmca.com/
#40 Lake Pleasant, AZ
602.867.0650
#42 Cheney Reservoir, KS
thegreenwoods@sbcglobal.net
#44 Santa Cruz, CA
clubmanager@scyc.org
#45 Columbia, SC
szymanskim@msn.com
#46 Grapevine Lake, TX
atanua.sail@gmail.com
South Shore Yacht Club, Milwaukee, WI
http://2011ic30anationalregatta.com

Other regional C30 Fleets

CRACA Columbia River, OR
celtic-myst@attbi.com
KLACA Kerr Lake
doncourtney1@aol.com
OSCA Rhode Island
www.oscafleet.org
SBCYA Long Island, NY
www.sbcyc.org
CSMB Santa Monica Bay
millerjonathon@mac.com
Lake Hefner, OK
bluwater30@cox.net
Fleet #69, Austen TX
http://www.catfleet69.com
GC3, Alabama
GulfCoastCatalinaCruisers.com

Let us know where you sail!

To have your fleet listed here, send the information to your Association Editor for inclusion in the next issue.

CATALINA 36/375 INTERNATIONAL ASSOCIATION

Commodore Report

C36/375 Commodore Les Troyer

Boats that have been hauled for the winter are starting to get splashed, but by the time you read this Sailing Season will be in full swing. I hope to get more sailing in this year, by changing where I normally sail – going south rather than north. We are getting a few new members who are on their first or second season with new to them boats, it great to see their enthusiasm! Unfortunately that means that some long time members have sold or are offering their boats for sale. We will miss them on the forums and Facebook. I want to call one such member for their long term volunteering to support the 36/375 community. Steve Jones has dedicated an amazing amount of time and expertise over the years. Steve's most recent accomplishment is standing up and moderating our Facebook community. From monthly cover page photos to cajoling me into a spiritic monthly maintenance article. Steve recently sold his 36 MK2, but has stayed on to train not one but two volunteers to take over his duties. A big thanks to Steve for all his work for our organization.

–Les Troyer, leslie@e-troyer.com

CATALINA 350 INTERNATIONAL ASSOCIATION

The Power of Observation to the Rescue

C350 Commodore George Thor

It was a beautiful Autumn day in early October with bright sun and temperatures in the 60's. My wife Mary and I decided it would be the perfect afternoon to take *Outlander* out for the last sail of the season.

I started the engine, which turned over immediately, and we backed out of our slip and motored into Sodus Bay. Other than the engine running smoothly, no other sounds but the water over the hull, well maybe a few loud go fast boats on the Bay. Mary took the helm while I set the main and the jib. She then stopped the engine and put the transmission into reverse.

The wind was from the Northwest about 10-14 kts and that gave us the perfect sailing conditions for us to run down the Bay on a broad reach and back up the Bay on a close reach. We easily hit 6 to 7 kts on both runs. The bright day and blue skies just highlighted the colorful Autumn trees on the shore line and the afternoon sun on the water imparted its autumnal color and sparkle to the water.

After two trips down and back the Bay we set a course back to the marina. We partially headed into the wind and furled the jib. As usual, just after we furl the main, I started the engine. But it did not start!

That is the engine turned over, but would not start. "How could this be?", I said to Mary, It started at the dock and ran perfectly when we set the sails. The wind was picking up a bit and we were drifting to the shore, so we let out the jib half way and headed up. Mary took the helm and sailed in circles while I tried to figure out what the problem could be.

Diesels are very simple engines and only need fuel and air to run barring any catastrophic mechanical failure of the engine itself, which in this case seemed very unlikely. I opened the engine access and looked for anything untoward like a leaking fuel line as the engine certainly was getting air.

Maybe a problem with the throttle cable I thought. The shift mechanism was getting very stiff and maybe the engine wasn't getting enough fuel. I went on deck and pushed the shift control's button in so I could move the throttle forward while out of gear and attempted to start the engine. No luck, it would turn over but would not start.

Fuel filters I thought. I never had a dirty fuel filter completely prevent an engine from starting but at this point who could say it could not. My first thought was the primary fuel filter, I had wanted to change it beginning of the season but discovered that I had no Racor 500 filter on board. I had planned to order two but forgot. I had changed the secondary fuel filter last year before decommissioning and felt it should be fine, as the engine ran smoothly all Summer.

Air in the fuel lines? Maybe, so I bled the secondary filter and tried to start the engine with no luck. It was getting to be 4 pm and the sun was setting. Mary suggested we call Boat/US for a tow back to the dock before it got too late. I said we might be able to sail back into the dock but with the wind direction we would have to tack to our fairway between the dock on one side and a shoal on the other. It would be a risky procedure. I reluctantly had to agree with her and was about to call for a tow when she asked me about the red pull handle on the steering pedestal.

"What about it?", I asked. She replied, "It seems it didn't go all the way down after I stopped the engine". I had to confirm what I was thinking and went below to look at the shut off lever on the engine. I told her to push it down. Sure enough, the lever moved just a little more. I called up to her to try and start the engine, and guess what, it started right up. It was just amazing that a little more movement would mean the difference between starting or not. **–George Thor**, Catalina 350 *Outlander*, Sodus Bay, NY

CATALINA 34/355 INTERNATIONAL ASSOCIATION

Secretary's Report

C34/355 Association Secretary Stu Jackson

Membership dropped slightly to 500 from last quarter's 533, and includes similar 28 C355s.

What To Do in the Winter

Our C34IA Commodore Noah Rosenblatt recently posted a great photo of sailing that he titled: "A Perfect February Day in San Diego." In many boating forums we read about folks sailing when many of us have conditions that are not as suitable for outdoor activities and some of our boats are even out of the water. I replied to Noah's post: "Sweet, thanks for sharing. This is simply one of the nicest one of these posts I've ever seen. Usually they throw in some "while yuze guys're freezing" malarkey. But not here. It's good to remind us of good times we've had and those yet to come."

Little did I realize that when we moved here in 2016, not only would I have to learn new sailing routes and destinations, but that I would have to learn to deal with that pesky reality called "seasons." While Aquavite remains in the water, thermal conditions preclude comfortable sailing between late October to anywhere from April to July. This usually resulted in a relatively complete shutdown of my sailing "hobby" activities for me for those months. I read a lot of books! I also got "turned on" to curling. Really.

When we finally got our stuff out of storage in California and moved up here back in October 2020, the "goodies" included my old 1987 !!! model railroad. I've always wanted to get it back up and running but we didn't have room in our house in Piedmont (20 years) or in our rental in Oakland for the six years there before we moved up here (had the space but never knew when we were going to have to move up here). But also back in October I got hit with a herniated disc, which really limited my mobility. That had cleared up by February, thank goodness, so I started in on the trains. Because they had been in storage for so long, the tracks all needed to be cleaned, thoroughly. It's a time consuming effort, but after a few weeks of daily effort I finally got a locomotive to run around most of the tracks. Track cleaning is as much fun as painting, watching grass grow or bottom painting. While it's a small 4x4 layout, it's got a LOT of track. As part of the fun & games, I stumbled upon a handy n scale FORUM, much like our website forum, and it's been a great help, with nice folks sharing all sorts of information. Through that forum I "met" another train enthusiast who lives only one town away from us, and he loaned me his can of special track cleaning oxidant - small world. I'm also chasing down some electrical connections. It's fun to get the trains running again. And electrical issues with model railroads are just like those gremlins we get in our boats!

Trust you remain safe, well and are beginning to enjoy your 2021 season. And, as always, many thanks from all of us to all of you for supporting the C34IA. **–Stu Jackson**, #224 *Aquavite*

CATALINA 320 INTERNATIONAL ASSOCIATION

The Election...And What's In Our Future

C320 Commodore David Allred

According to the Bylaws of the Catalina 320 International Association, the officers of the Association shall be elected at the annual meeting and the results of the election shall be published in *Mainsheet*. This article follows those directives. The Governing Board of the Association held its annual meeting on February 9, 2021, by teleconference, as is permitted by the Bylaws. All of the officers were able to attend with the exception of one officer who was fortunate enough to be offered a Covid-19 vaccination during the time scheduled for our meeting and wisely chose the vaccination over the call. By the time you read this article, I hope vaccinations are readily available to everyone who wants one (or two, as the case may be). At the time of writing this article, however, the absent officer was, indeed, fortunate to have the opportunity. As the first order of business, all officers agreed to serve another year, subject to additional nominations and election. Thus, the following nominations were made by the Board:

- Commodore – David Allred
- Vice Commodore – John Santana
- Secretary/Treasurer – Bill Culbertson
- Web Masters – Jeff Hare and David Prudden
- Association *Mainsheet* Editor – Mark Cole
- Association *Mainsheet* Technical Editor – Jason Reynolds.

On February 11, those nominations were submitted to the Association membership through our web site with the provision that the floor was open for additional nominations until February 18, and voting would be concluded on February 25. Following the tradition of the last few years, no additional nominations were made. The election proceeded with admirable civility, truly the envy of any representative body. The only glitch was my misspelling the name of one of the officers in my initial announcement of the election, an error swiftly spotted and corrected. I am delighted to announce that the Board's proposed slate was elected unanimously by all the members who chose to vote.

In addition to nominating officers for 2018, the Board discussed several improvements for our members. Bill Culbertson reported on progress he has made making membership renewals easier and more reliable since converting from a third party contractor to a web based process. Soon, virtually everything

CATALINA 320 INTERNATIONAL ASSOCIATION

(continued from previous page)

from membership renewals to members being able to amend their own information on the website will be available online. Jeff Hare reported that he, too, is making progress in making the website more accessible to members, including moving it to and integrating it with the web management system that Bill is using for membership matters. Although I have minimal understanding of most things computer or internet related, I am confident that our whole web platform will make Association membership even more valuable and accessible.

John Santana raised the possibility of a Catalina 320 Rendezvous in 2022 in New York. Our last Rendezvous was in 2016 when Dick Walker graciously hosted our Association in San Diego. John noted that his yacht club on Staten Island likely would be a good venue and he said that he has already talked to other members who were interested in helping organize an event. We agreed that in view of the continuing pandemic, 2022 is probably the earliest we can realistically expect to have a Rendezvous that would be relatively free from the constrictions of the pandemic. Over the coming months, I will be contacting members who have boats near New York to solicit their interest and advice. If you are interested or have questions or comments, though, you need not wait for me to contact you. You can reach out to me or to John by email or through the web site.

Mark Cole and Jason Reynolds remarked on what is clearly evident from recent issues of *Mainsheet*. They have obtained and edited some terrific articles, both technical and of general interest. Jason has solicited technical articles, including photographs, through the discussion list and is always ready to assist anyone who is interested in putting together a technical article. Mark is also looking for general interest articles such as the North to Alaska article in the Winter issue. Although the C320 Association may not be dominating *Mainsheet*, we certainly have a strong presence with valuable and interesting articles.

We believe that we have a terrific Association that provides a great service to every owner of a Catalina 320. If you are not a current member, please consider joining. If you are a current member, please consider recruiting other 320 owners to join. Membership details are readily available at our website, www.c320.org. Thanks for your support. **–David Allred**

CATALINA 310/315 INTERNATIONAL ASSOCIATION

Greetings Sailors!

C310/315 Commodore Alan Clark

As of this writing We are looking forward to a Better Sailing Year than last year.

We have been through very challenging times, similar to sailing in heavy air beating to windward- at least that is what it felt like sometimes. But now we are on a beam reach, the sun has come out, and we will make port on time!

Eileen and I are making final preparations to launch the boat. Checking the life vests, tethers, jacklines, flares etc. We are planning our destinations for the season and still unsure if Canada is going to open up to Americans at this point. But we will make the best of whatever we do! No matter what, it is always better on the boat.

As we are Great Lakes sailors, we are looking forward this year to sail east on Lake Erie again and then North up the Detroit River! Different destinations, different adventures! We will file a float plan as we have done in the past with family. Along with new sails this year and a bit more canvas we should be ready for anything!

On a sad note, we are losing our association editor Bob James, who I can say is the man that got me into association from the beginning. I have enjoyed working with him but he is now boatless. He has devoted much of his time helping our organization. A BIG Thank You Bob!

On a happy note we welcome Bob's replacement our as our New Editor, Gary Hattan who sails 310 #191. A warm welcome aboard and thanks to Gary Hattan, who must have drunk the same Kool Aid that I did! We are all volunteers who love sailing and our boats. I will also like to thank Jesse Krawiec our tech guy and Curt Sawyer our Treasurer/secretary for their continued work to our association.

Please Have a safe and FUN Sailing Summer season. **–Alan Clark**, *Anam Cara*, C310 #155

Hello Sailors!

C310/315 Association Editor Gary Hattan

I am delighted to be a part of *Mainsheet* magazine. I have owned a C310 for about 2 years now and I couldn't be happier with my choice of vessels. It sails wonderfully and Rebecca loves the v-berth bed arrangement. We dock it in South Haven, Michigan where I retired to 4 years ago. It is a wonderful coastal community and not far from my origins in Chicago.

No doubt like many of you, I was fascinated by sailboats from an early age, but I had never even been on one until I was 22 and my brother, Dick, called me and suggested that I look at a small sailboat that his neighbor in Indiana was selling. I bought the 14 foot Starcraft on sight without any idea if it was a good price or seaworthy, not to mention I had no idea how to sail. However, $800 seemed a small price to pay for making my dream come true. Once getting it in the water, it was a thrill to

see how that little boat would react to the changes in wind, the sail trim and my position in the cockpit.

I had many summers of fun with my Starcraft, sailing on a small inland lake in Southwest Michigan. There were some close calls like when my new girlfriend was thrown out of the boat when I experienced my first accidental jibe. Another time my brother and I were out sailing on a warm sunny day when I noticed that we seemed to be getting lower and lower in the water. We immediately headed for shore and sunk just short of the beach in 4 feet of water. I never forgot to put the drain plugs in again.

After selling the Starcraft for parts and spending several decades in Atlanta working in commercial insurance, I happily retired back to the midwest (and Lake Michigan) and bought my first cruising boat, an O'Day 30. That boat suited me well but was lacking in the creature comforts that Rebecca required. I do believe the 310 is the perfect couples boat as Catalina's advertising suggested. We have spent the last year dealing with a host of issues from an overheating diesel to a malfunctioning A/C unit, but most issues are behind us and we are ready to begin coastal cruising the Michigan shoreline and more!"

I look forward to being part of your 310/315 Association Officers Team. –**Gary Hattan**, *Mischief*, C310 #191

One Hundred and Thirty

C310 Outgoing Association Editor Bob James

What in the world does 130 have to do with the Catalina 310/315 Association? Short answer, nothing. Slightly longer answer; in my 37 years of sailboat ownership, 130 is approximately the number of quarts of VC-17 that I have bought and used. Add to that the brushes and rollers, painters' tape, the respirator masks (not for COVID), the hazmat suits, and the bottles of Advil and cans of beer used after crawling around under a boat for a day. A right-of-passage?

I call it the 'spring right-of-passage'. I have often mused that after the fall power washing, does the boat really NEED to have its bottom prettied-up? Maybe not, but I just gotta do it! It is what boat owners do in the spring. Yup, the boat owners right-of-passage into every new season. As an office-chair dweller, a day in the boat yard might just be the only accomplishment I can see or exercise I have had since the boat was put in the yard six months ago.

Ok, back to what does 130 have to do with our Association? Well, with a tear in my eye, we sold Winter Dream'n last October. 130 is the final tally of VC-17. In the last issue of Mainsheet (Spring 2021) my column was entitled "Help Wanted". Since I am now boatless, it was time for our Association to "hire" a new Association Editor. Fully expecting all the association members to duck for cover, I told Commodore Alan Clark that I would hang around until we could "dredge-up" a new editor.

Well, to my amazement, in less than a month, Gary Hattan emailed, and our Association will have a new editor beginning with the fall issue. Learn more about Gary below.

Little did I know some 15 years ago when I took over this job that it would last this long and give me as much joy that it has. It has been a labor of love. I will miss the quarterly opportunity to connect with all of you. 130! Cheers.

Smooth sailing. –**Bob James**, C310/315 *Mainsheet* Editor, *Winter Dream'n*, C310 #118

CATALINA 30/309 INTERNATIONAL ASSOCIATION

Hello all!

This marks the beginning of the sailing season for sailors on the northern half of the US, and at the same time, a stop at being very jealous of sailors in the southern latitudes who continued posting awesome videos of themselves sailing throughout the winter.

C30/309 Association Editor Michael Dupin

At the time of writing, the Nationals are still iffy unfortunately. Updates will be posted in the next edition as well as on the different Facebook groups when we know more. COVID has claimed a lot of organized races in 2020, it seems that 2021 will only be marginally better.

I hope you enjoyed the cover of the last issue! In this issue, we have a great article by Billy Scarbrough out of Seabrook, Texas (speaking of sailing through the year…). Billy shows us how he had his common white C30 transformed into a beautiful dark blue hulled vessel. The yellow stripes and the design in the stern are a stark contrast with the mirror like finish. This could inspire some of you to do the same… I know I am!

The association's website is still undergoing a necessary major refit, the new version will be up hopefully before the summer. PayPal is also giving Max a technical hard time right now, more on that soon as well.

As a reminder, consider joining the new Facebook group for the tech articles, association news, etc. Authors are added so you can ask them questions directly and/or share if you implement any of the modifications. https://www.facebook.com/groups/c30mainsheet.

In the next issue, we will stay on hull improvements but this time on blisters. As most (er, all) of our C30 are getting of a certain age, blistering is a common problem. Bob Hamilton will show us how he took care of his and his lessons learnt.

Finally and as always, if you've done a good modification, feel free to reach out! –**Mike Dupin**, Dupin.Catalina30@yahoo.com

Advertising Index

CATALINA 22 NATIONAL ASSOCIATION

Catalina 22 National Championship Regatta

The 2021 Catalina 22 National Championship Regatta has arrived and taking place the week of May 23 to 27 in Pensacola, Florida. Results of the event will be accessible on the Catalina 22 National Sailing Association website at www.catalina22.org. PRO for the event is Hal Smith. Hal is a US Sailing certified National Race Officer and a former Catalina 22 National Champion. Hal has assembled an excellent team to support the event's Race Committee duties. We are also very appreciative of the members of the Pensacola Yacht Club for hosting this year's event. Thank you!

C22 Association Editor Rich Fox

Looking ahead to 2022, a bid to host next year's Catalina 22 National Championship Regatta was submitted by the Catalina 22 Fleet 77 and the Fort Walton Yacht Club. The event is scheduled for mid-June. Exact dates will be announced in late Fall 2021.

The Catalina 22 events calendar was quickly populated this spring. Upcoming events include:

- Showdown in Motown Regatta, June 5-6, Lake St. Clair, Michigan
- Region 8 Genoa Championship Regatta, June 11-12, Lake Worth, Texas
- Summer Slam Regatta, July 23-25, Fort Gibson Lake, Oklahoma
- Gold Rush Regatta, September 17-19, Lake Grapevine, Texas
- Grand Annual Regatta, October 2-3, Morehead, Kentucky

The Catalina 22 National Sailing Association is not just about racing. At about the time this edition of *Mainsheet* has arrived in your mailbox, the Northern Gulf Coast Cruise is taking place (May 8-15) along the Florida panhandle. Participants launch their boats at the Fort Walton Yacht Club in Fort Walton Beach, Florida. They set sail westward via the Intercoastal Waterway to Alabama, then make a return trip. The cruise will have a different look this year due to hurricanes that have changed the landscape in and around the area.

Fifty years ago (1971), a very young man in his mid-20s purchased a Catalina 22 (#407) and founded the Catalina 22 National Sailing Association. That young man was Tom Winans. Tom went on to serve as the first Acting Commodore, first National Champion, Class Editor, as well as holding office as Secretary/Treasurer for a year or two. The Catalina 22 was one of the first new Associations that were established in the 1970s for boats built by Catalina Yachts. (I believe the Coronado Association was already in-place by then.) Many of you may know Tom Winans or perhaps sailed with him. Recently, Tom was named as an Honorary Editor in the Association and is sharing some articles about the Association's history and past events.

If you have a Catalina 22 racing or cruising event in 2021, send your announcement to me so I may post the event on the Class website and Facebook page. Or you may provide me with a link to your event website. Either way works to help get the word out.

–Rich Fox, rich_fox@yahoo.com

Thinking about

Call Garhauer

Surprisingly affordable, custom-built chain plates from Garhauer can be a wise investment for your boat. Hand-built of high-grade stainless steel, Since they are all made to order, you can add any modifications not present on your current chain plates.

Call us today and talk to one of our experienced builders of custom sailboat hardware.
(909) 985-9993

GARHAUER
MARINE HARDWARE

1082 West Ninth St., Upland, CA 91786
email: garhauer@garhauermarine.com

Ph: (909) 985-9993
FAX: (909) 946-3913

EDSON Since 1859
Making Adventures Happen

EDSON 160 YEARS

NEW! EDSON ComfortGrip®

GET A GRIP!

Since 1859, we have carried on the American manufacturing tradition. With a strong passion for boating , our team and products have brought sailors around the globe and safely home for over 160 years!

Not every day is full of sun and a light breeze; we have your back when the weather turns.

We are always developing new and innovative solutions so that YOU never have to stop Making Adventures Happen!

EDSON Since 1859
Making Adventures Happen

www.EdsonMarine.com
(508)-995-9711

Order Yours Today!