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MAINSHEET

SPRING 2018

Volume 36 • Number 1

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Presently, we are about five miles north of La Paz, Mexico anchored in a cove called Bahia Falsa near the commercial port of Bahia Pichilingue...

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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.

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CATALINA MAINSHEET

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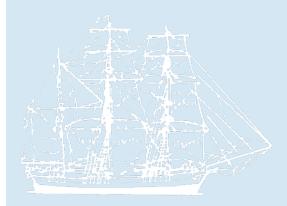
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Visit the association's websites for full lists of association officers.



FDITOR'S BARQUE

General Recall

It is always nice to have a chance to start over, especially if your first start found you buried in the back of the fleet. Then the General Recall flag is a wonderful sight!

With the new year 2018, we all get that chance for a new start. At this point, Mother Nature's start has been a rather hostile one, but let's hope for Spring to be a bit more sailable with some warm 12 to 18 knots.

Speaking of a new start, in case you didn't notice, the Winter issue had a change in font size. We received a legitimate complaint from a subscriber that Mainshet was too hard on the eyes, and they wondered if we could go to a larger font size. The difference was small but it did make for easier reading. As always, our goal is to give you the best possible issue in every way.

With the start of each issue there is one thing we can always count on, the association editorssending us well-written, interesting articles along with useful technical information approvedby Catalina V.P. Gerry Douglas. Kudos to the association editors for a job well done.

-Jim Holder

Publisher/editor cv.jholder@mainsheet.net

ABOUT OUR COVER:

Cover photo submitted by Gary Brockman owner of Squall (hull 231) – a C34 sailed out of Marina del Rey in Los Angeles. The photo was taken by Sandra Smith during the Homeport Regatta put on by the Association of Santa Monica Bay Yacht Clubs and run by the South Coast Corinthian Yacht Club. "We did not win the race," but Gary added, "My crew and I are excited about being on the cover of Mainsheet."



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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.

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Safe Journey:

Surviving Hurricanes

By Jesse Krawiec • Catalina 310 IA, Technical Editor

Its 5:30 in the morning, the four sailors and a dog sharing this condo are sitting nervously in the living room.



Close at hand are our "ditch bags", backpacks with bare necessities like a change of clothes, cash, water, protein bars, flashlights, VHF radios and a machete. It has been about 20 minutes since the condo started losing its roof. The first chunk of terra cotta tiles went in one loud crash. Now it sounds like someone is beating on the storm shutters with a sledge hammer. The front door is bowing in from the wind and pressure, you can feel it vibrating, pulsing, but we don't want to brace

anything against the door as it is the only way out if the roof gives.

ZING! There goes another section of roof, the terra cotta tiles sounding like out of tune piano keys being played as they slide against each other.

I heard the tiles smash on something across the street. I reassure myself that my ditch bag is close at hand and I put my dog's leash on. I think the time to make a run for it may be close.

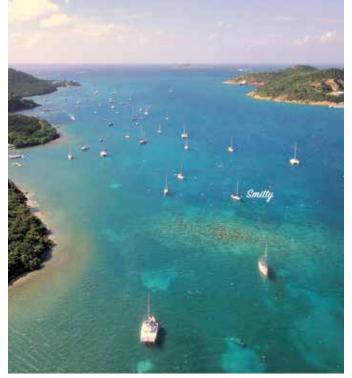
The wind outside is howling. My ears are popping from the pressure; pressure that is forcing the water from the toilets. I have been through storms before but nothing like this. The last thing we saw on the news before the power went out was that Palmas Del Mar, Puerto Rico, the very spot where we were, was to get the northeast corner of the eye wall and receive the most destructive forces. Later we would learn that the winds topped 170 knots (about 200 miles per hour). The forecast put the pressure at 908 millibars, making Maria potentially stronger than Irma, the storm that brought us to Puerto Rico to begin this latest adventure.

In 2015, my Bride, our dog Summer and myself set off to do something different. We had grown weary of our corporate jobs working in small boxes every day while spending hours commuting in and out of Boston. We had sold the house, the cars and almost everything we owned. We replaced our fancy Ridel wine glasses with tin cups. We had lived on our Catalina 310 for a few years as we paid off debt and saved some money to leave the cold northeast for someplace warmer. That quest for warmth brought us down the US east coast, through the Bahamas and settling in US Virgin Island. We now call a mooring field on the northwest side of Water Island in the USVI home and work on St. Thomas.

In the days following Maria we began to put our boat back together. We rented a car and went around Puerto Rico looking for fuel filters and sourcing parts to build a fuel polishing system. This took way longer than it should have because many of the parts I needed



Smitty storm prepped IRMA



Smitty mooring





Getting in the dingy and traveling out into the private docks in Palmas del Mar, the damage only got worse.

There was no pattern or reason to the damage. One boat was damaged and sunk while the boat at the next dock was untouched with canvas carelessly left up still intact.

had been bought up by people with generators before the storm. About a quarter of Puerto Rico (from Fajado to San Juan) was without power. It took many stops and many fruitless attempts over two days to finally get all the parts I need. I was never able to find a replacement engine filter. I constructed the polisher and spent several days polishing the fuel that was in the tank.

With the fuel problem fixed, we put the headsail, bimini and solar panels back on. Long hot days working in record setting heat in Puerto Rico. We began collecting lists of needed supplies from friends on the islands. The requested items were things you would expect like generators, chainsaws, pressure washers, mosquito netting, etc. We also joined the group Sailors Helping formed by several cruisers in Puerto Rico and other islands to help bring relief supplies to the islands hit impacted by Irma. Sailors Helping had already been organizing donations and getting them on boats heading for the Virgin Islands. Our plan was to stuff *Smitty* full of supplies and sail back to St. Thomas to help our friends.

So, this is where Maria came into the mix. Instead of getting almost two weeks of warning like we did with Irma, we only had five days' notice. It was Friday Night, September 15th. The EURO had the track going just to the south of us with landfall near Salinas. The GFS had the track.

Maria would be our seventh hurricane since owning *Smitty*. However, most of those were in the northeast where we typically didn't see actual hurricane force winds in the protected harbors. The forecast now had us getting winds well over 100 knots. After seeing all of the devastation in the Virgin Islands from Irma it was really hard to have a positive feeling about what would come next.

In the morning we headed back down to the Yacht Club. We started looking around at the damage and talking to the other boaters about how they fared during the storm. There were 40 boats in the Yacht Club for Maria. Of the 40, six had sunk, six had been dismasted and 25 others had some damage ranging from cosmetic gelcoat scuffs, bows missing from pounding on the dock, damaged sails and rigging and holes through the hull that put the boat at risk of sinking if quick repairs aren't made.

Getting in the dingy and traveling out into the private docks in Palmas del Mar, the damage only got worse. As the surge pushed into the canals it became concentrated and more destructive energy was present. Large Viking cabin cruisers were lifted and put down on top of piles.

Sailboats were pushed up onto docks and left resting on their rudders. Boats were sunk in tangled masses. Out riggers were bent and broken from the force of the wind. There was no pattern or reason to the damage. One boat was damaged and sunk while the boat at the next dock was untouched with canvas carelessly left up still intact.

In the end, *Smitty* damage was limited to a shorted-out control module for our refrigeration. The compressor is located below a vent that was installed to allow the heat to escape. But salt water sprayed into the vent soaking the control module that subsequently failed.

There was a lot of luck and a lot of preparation that went into keeping *Smitty* safe through these storms. It's hard to say which was the bigger influence in surviving the storm. But, we are proud of our tough little boat.

SPRING 2018

Change of Course:

The Autumn of our Sailing Season

By Steve & Margie Cooper • CM440 Coop'Sloop



In the past, we have written short cruising articles for our association. At this time, in our sailing career, my wife and I have a different perspective than we had as younger sailors. We would like to share our current thoughts with you, especially, those of you who are older sailors. We realize that our time to safely sail may become a major issue and limit our threemonth summer cruises in the coming years. Physical changes

will not stop us from enjoying our boat, however, because the CM440 was designed to be enjoyed by sailors of all ages. We will need, however, to alter plans for our future summer seasons.

For the past 10 summer seasons, my wife and I have been vagabonds on *Coop'Sloop*, our CM440, hull #56, cruising Lakes Michigan and Huron and trying to see as many places that fit into our 3-month schedule. For those of you who have never sailed the Great Lakes, they offer an endless list of possibilities—no salt, no sharks, no tides, no worries!



A summer rainbow in Petoskey, MI



Coop'Sloop on the hook in Government Bay

The Great Lakes boast world class fishing, including lake trout, salmon, pike, bass, walleye, and perch. For those sailors interested in harbor hopping, there are wonderful harbors that welcome transient boaters every 30 to 60 miles along the Lake Michigan shore in Wisconsin, Illinois, Indiana, and Michigan. You have the opportunity to enjoy Midwest hospitality, as you explore the urban areas of Chicago or Milwaukee and the smaller towns along the coast. If you venture into Lake Huron's North Channel and Georgian Bay, there are literally hundreds of wilderness anchorages that offer solitude and the opportunity to kayak or explore wild waters via dinghy. When we are at anchor in the North Channel, we marvel at the peaceful stillness, pristine clear waters, and the forested landscape. We also enjoy sunny 70- to 80-degree days and nights in the 50s and 60s. Yes, we still enjoy day sailing out of our home port, but the lure of the North Channel—one of the most famous cruising and gunkholing grounds in the world—has kept us coming back year after year.

We now are enjoying the moment instead of setting extensive goals to reach certain ports or anchorages as we once did. We are thankful each day for the opportunity to simply enjoy our boat. We are not on a schedule, so we don't press ourselves to sail in bad weather or when the lake is rough. We are able to relax, take our time, and enjoy each day in port or on the hook. We have finally come to accept that one cannot see this entire area in a lifetime. So, when we are on our CM440, we now stay in harbors and anchorages long enough to enjoy each place to the fullest extent and to take in spectacular sunsets and stargazing.

The Great Lakes boast world class fishing, including lake trout, salmon, pike, bass, walleye, and perch. For those sailors interested in harbor hopping, there are wonderful harbors that welcome transient boaters every 30 to 60 miles along the Lake Michigan shore in Wisconsin, Illinois, Indiana, and Michigan.



An afternoon of exploration in Keyhole Georgian Bay

Instead of anchoring out in the rain or staying at anchor in the lee of an island during high wind warnings like we did in the past, we now duck out of bad weather and will happily stay in a harbor. We enjoy visiting with other sailors and powerboaters in all the places we visit. Physical limitations have forced a slower pace, but we are still able to handle our summer cruises as we venture to charming harbors and wilderness anchorages.

Next year, we are making a big change and have opted to have an assigned slip in a marina for the summer, where we have friends who have homes nearby. Our boat will become our summer home. After being on the go for the past 10 seasons, we aren't sure whether we will enjoy staying in one place all summer. If we find out we don't like staying put, however, we still have the option to day sail or cruise for limited periods of time. Coop'Sloop is fully equipped with solar panels, a generator, in-boom furling, and bow thrusters, all of which makes it easy for us to fully enjoy our time aboard.

When you worry that your increasing age and declining physical abilities may limit you from enjoying sailing as sport or leisure, consider slowing your pace. Perhaps you will find that your CM440 is the ideal place to enjoy "the moment." This approach is working for us. Perhaps it may be an option for you, too.

Thanks to CM440 Members. I would like to express my appreciation to all of our CM440 owners. It has been a pleasure to serve as the CM440 Secretary/Treasurer since 2011. You are now in the very capable hands of John McElderry, who has graciously volunteered for that position in our fleet. **–Steve Cooper**



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SPRING 2018

View From The Bridge:

Simple Steps to a Brighter Interior

By Bill Templeton • Technical Editor C350IA

A few years back I relayed the story about driving home from the US Sailboat Show in Annapolis, and after being on a wide array of new boats Pat turned to me and said she didn't see anything that year she would replace Makani Kai with. We have been volunteering to "work" the Catalina owners' booth at the show. We met and talked with many owners (past, present and future) and everyone signed the banner Catalina had with all the different classes. Our vantage point at the booth gave us a great view of all the Catalina models being shown...and spent a lot of time on and off of several...especially the C385. Well here was a boat that was going to give our 350 a run for the money. As the weekend at Annapolis played out we talked seriously about a new boat. Weighing the pros and cons of the two boats we ultimately felt the 350 still suited our needs...but she is getting older and perhaps a bit stale. That Winter (2016-2017) we did a little upgrading and brightening of the main salon. Here, I present to you, these simple changes.



I have always liked the ash batten ceilings in many of Catalinas. The C350 MK I has teak faced ply material for the same areas and always wondered if I could fashion battens for my own 350. Using thin strips of ash or clear pine seemed possible....but economy (my cheapness) and labor (my laziness) the project went undone. In comes the Catalina 385 (as noted in my comments above) and a desire to "update" (mostly lighten and brighten) our interior. Instead of building ash (or pine) ceilings I simply put together some 5 x 7 photos and Scott Griswold (Cape May on Canvas) prints with 1 1/2" white matte in 8 x 10 frames. I mounted these (with 3M Command strips) in line with the portlights in the hull both port and starboard sides. I may someday fashion batten strips for the ceilings but until then I have created the illusion of having multiple portlights in the hull.

We ordered Makani Kai in the Fall of 2004 withy the blue fabric interior, at the time were cruising with a cat and were concerned about claws not mixing well with the ultrasuede. The interior package included blue fabric aprons around the bases of the seats and settee. Sounds like an easy way to show more white and less dark blue by simply removing the panels....but that word simple should rarely – if ever – be used when talking about or working on boats. The old glue from the velcro took a great deal of finessing to get it off. I found that by heating (low setting heat gun or high on the hair dryer) the velcro strip to soften the glue and peeling slowly much of the glue came off. To get the last of the glue off the interior surfaces required liberal use of "Goof-Off".....and a lot of ventilation since I did this during the winter with the boat covered.

Home in the garage I had a pair teak cabinet fronts/doors. I had purchased these cabinet fronts a dozen years ago at one of Defender's annual spring warehouse sales up in Waterford, CT for another project that I never got

to. It seemed natural to install these doors in the seat bases starboard side; not only "trimming out" the sdeat bases but also providing access to two storage areas without having to lift the seat cushions. When we renovated our kitchen back in the Winter of 2012-2013 I installed under-cabinet LED light strips. Unfortunately after the install was complete I realized I had selected the wrong temperature (I used a cool white but wanted warm white)....so I removed the cool white LED strips and replaced them with warm white. Now I had 50 ft of cool white self-adhesive 12V led lighting. So, what could I do with this...of course, use it for perimeter lighting in the main cabin of the boat. I have some "open" breakers on the main panel....one of which was "nightlight". I snaked 16 ga duplex wire forward from the main panel....thru the head.... around the front of the main sleeping cabin and back to the main salon on the



Port side before



Port side after

10





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VIEW FROM THE BRIDGE

(continued from previous page)



Starboard side before



Starboard side after

starboard side....literally splicing the LED strips into the main cabin runs thereby providing uninterrupted lengths of indirect lighting both port and starboard. All the wires were hidden and the LEDs being on self-adhesive tape the job went quickly. I don't think



Makani Kai galley after

you could (or would want to) do this with incandescent lighting because of the current draw over the length required and the heat generated. Now a simple flick of the "Night Light" switch at the main panel and I have further brightened up some otherwise dark

areas on the boat. Another dark and shadowy area on the boat is under the galley cabinets. At Lowes I found foot square packs of 1" x 2" self-adhesive aluminum (brushed to look like stainless steel) "subway" tiles. Perfect to create a "stainless steel" backsplash in the galley. I would have preferred a shiny finish to reflect more light, but the brushed finish is what was available. I think this may be another place to install LED strip lighting hidden behind the cabinet door fronts...if only I had more leftover LED strips from the kitchen.



Now a simple flick of the "Night Light" switch at the main panel and I have further brightened up some otherwise dark areas on the boat.

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By Bill Martinelli, C470 Commodore's Message Photos by Julie Lynn Olson



Every three months I need to come up with a subject to write about

for this magazine. This time I don't have a clue as to what to write. Therefore, I will tell you what I'm presently doing, which is essentially nothing, just sitting here trying to come up with a topic.



Presently, we are about five miles north of La Paz, Mexico anchored in a cove called Bahia Falsa near the commercial port of Bahia Pichilingue. Along the land edge of this cove is the main road to Pichilingue, so a good portion of the port traffic goes by here. There is a grade on both ends of the road, so that most of the time we get to listen to the Jake brakes (also known as Jacob's brakes) of the heavily loaded tractor trailer trucks. While below deck I keep thinking that another cruiser is coming by with a noisy outboard. That comes to mind because boat motors is all we've heard for the last two and half months since we left this area.

So why are we here? Well, we have a reservation for a slip in Marina Palmira in three days and can't get in any earlier since the slip we prefer is occupied. We could have remained up in the Sea of Cortez and continued to play in the islands but the weather forecast was for four days of continuous 20 to 35 knots winds from the north. Delaying our departure, and depending on our location at the time, would have been

a 30 to 120 mile downwind run. If you think that sounds like fun, you haven't been through a "norther" in the Sea. To say this area of the world develops some odd wave patterns is an understatement. Think about short square waves with rollers from two to three different directions for 5 - 20 hours. Really sounds like FUN!

So instead, we decided to come back to the La Paz area a bit early to hang out and do nothing for a few days where we have great cell phone and data coverage available to us and not get beat up.

Of course, the battery in my Ipad Air2 decided to die recently. When it started to act funny and not start up consistently, I guessed this was the case. This was confirmed when I contacted Apple Support. Their online chat was busy but they offered to phone me, which they did within a few minutes! I managed to get the Ipad to run while Apple connected to it and ran an analytics program that confirmed the battery was kaput. What was interesting about this sad news was that we were

CATALINA MAINSHEET

nine miles from a cell tower at one of our favorite anchorages while they ran the diagnostic. There might be a third party vendor in La Paz that can replace the battery, I'll find that out next week when we are back in "town."

With the Ipad not working, I can't sit in the cockpit and surf online for things I don't need to buy. (Unless Julie shares her tablet with me!) So, I need to find other ways to amuse myself. I could go outside and polish our stainless but within a few days, I can pay to have that done for about 2000 pesos (\$100 USD) back at the marina. It's not worth it for me to wear myself out in the hot sun while cleaning our rails, arch, and other shiny bits. Many services and restaurants here are quite reasonable, although the marinas are not especially. The marina prices are equal to if not more than many rates in California. We are paying close to four times the price that we paid in our former marina in San Francisco Bay. Ouch!

We've now been down here over seven years, after coming down on the 2010 Baja Ha-Ha Rally. A number of the people we met while on that rally are still here. Many also spend some time in the states each year as we do. Julie keeps in contact with everyone, which gives us a network of friends coming and going to get parts shipped



Voyager's friends Lisa and Nala at Isla Carmen, Sea of Cortez

in. That helps everyone out a lot. We can get many things we need here, but there are some items that are not available.

It makes one appreciate how easy it in the U.S. to shop, and get things quickly! In the States, I could drive three miles to the Apple store and have my Ipad battery replaced. If I don't find someone in La Paz to replace it, I'll have

to get someone to bring a battery down here and the tools to replace it. They'll probably have to be driving since the battery is lithium and flying with it is in doubt. Or, I may have to wait a couple of months until we go back to California for our winter "break."

Still need to come up with a topic to tell you about!



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. | Spring 2018 password: S361



CATALINA 470 NATIONAL ASSOCIATION

Drip...Drip...



Technical Editor Joe Rocchio

Several years ago, the Yanmar mechanic was just finishing the 5,000-hour service I had requested. As I watched him do the final visual check, one of his fingers came away with a drop of engine coolant from just under the coolant water pump.

"Uh-Oh," we both said as he began to check for a leak around the pump shaft. Running the engine for a while and doing other checks did not reveal any more coolant drips. The mechanic observed that the ceramic coolant shaft seal might weep a tiny bit when not under load and it was likely that this was where our mysterious drop of coolant came from after having made its way through the weep hole in the pump mount. He told me there were likely

a lot more hours to go before I had to worry about replacing the coolant pump.

Fast forward to January 2017 and >3000 engine hours later. As Onward had sailed down the East Coast from the summer's cruise in Maine, I had occasionally noticed small amounts of coolant under the front of the Yanmar. I never could trace its source, and it

As I started to do the job, I became fully aware of and essentially stunned by the number of appendages connected to the coolant water pump.













Ancillary parts required for coolant water pump replacement.

was minor; I simply kept the overflow reservoir full. Before crossing to the Bahamas, I considered buying a spare coolant pump "just in case" but didn't have time to get one. So, you can now guess the story: as soon as *Onward* pulled into the Green Turtle Club Marina in the Abacos to check in, I found a substantial coolant leak. My paper towel leak source detectors clearly showed it was coming from the coolant pump shaft seal. While the leak was slow, I became concerned that a catastrophic seal failure could occur.

Then came the joy of ordering in a replacement pump. Because I publish the website: www.bahamascruisersguide. com to inform fellow cruisers of where and how to get what they need while cruising in the Bahamas, how to get spare parts to your boat is one of the things I track. So, soon the part was on the way to be picked up about two weeks later when *Onward* arrived at Staniel Cay in the Exumas. Well, the part arrived and a day or two later at Big Majors Spot, I decided to swap out the coolant pump while Peggy watched the antics over on Pig Beach.

As I started to do the job, I became fully aware of and essentially stunned by the number of appendages connected to the coolant water pump. Now after some 12+ years of ownership, I knew it was complex but I really didn't fully grasp it. The issue is there are so many

hoses, pipe fittings, gaskets, o-rings and sensors attached. All of these a potential problem to deal with in a remote area if they were not reusable.

I made the decision to keep the original coolant pump going and just check coolant levels more frequently. If the leak got untenable I would be forced to do the swap in the Bahamas, otherwise I would manage the leak until I was back in the US. This strategy worked well. I actually found that the leak was worse if fan belt tension slackened. I guess the side force on the bearing had caused it to wear excentrically and there was a smaller gap when the shaft had greater side load from more belt tension.

Onward was back in a slip in Baltimore by late May and I decided it was time to do the swap. The first thing I did was to make note of everything connected to the pump – then buy new components (see photo): two gaskets, two o-rings, three hoses, temperature sensor, thermostat, coolant tank pressure cap as well as brass fittings for hot water heater feed and return ports and new hose clamps. When all the parts were available, I removed all the appendages to the old pump and then the pump itself. The Ryobi One+ impact driver/wrench and pretreatment with PB Blaster facilitated the pump removal.

I firmly believe a clean engine is the best tool to alert one to an engine problem. So, I wire-brushed all areas of the engine near the pump that had been affected by the coolant leak to get down to bare, clean metal. Then I masked the engine and surrounding as necessary before spraying all affected areas with Yanmar OEM silver-gray engine paint. It looked like a new engine when done. From that point on the installation was straightforward, taking about a quarter of the time that the disassembly, cleaning and painting had taken.

A discovery that came somewhat as a surprise was that the high-temperature water hoses that circulate water to and from the hot water heater, had essentially rotted through more than half their wall thickness due to the combination of coolant water heat, engine heat and age. I replaced the entire lengths.

Lesson Learned: when planning for emergency spares for use in remote areas, be sure to look at all the ancillary components that might be affected and carry those that may be hard to come by. Sail on! **–Joe Rocchio**, jjr@onward.ws



CATALINA 400/445 INTERNATIONAL ASSOCIATION

Displaying Engine Data On Your Raymarine Displays



C400 Association Technical Editor Olav N. Pedersen

Special thanks to Jeff Church for submitting this article. **–Olav N. Pedersen**, olavnp@gmail.com

Porting Yanmar engine information over to your Raymarine Hybridtouch plotter and I70s

instrument displays is a great rainy-day project (see chartplotter photo). The equipment list is short, expenses are reasonable, and it is relatively easy to do if you have some experience with wiring and electronics. Please seek professional assistance if you have any doubts regarding your abilities in those areas.

First, a little background information. Newer Raymarine installations use the NMEA 2000 communication protocol they call SeatalkNG for communication between devices that are connected to its network. The network traffic is routed through the boat on a black and blue backbone cable. Displays, autopilots, transducers, and other devices connect to the backbone through connecting blocks and black and white spur cables (see Seatalk 5 way connecting block photo). The newer Yanmar engines such as the 4JH57

use a different language, the J1939 protocol, to communicate between the engine electronic control unit (ECU), gauges, and other devices. The data on Yanmar's network travels on 4 wires which are present in some of the engine wire looms. A Raymarine module, the ECI-100 Universal Engine and Control Interface physically connects these two networks and then translates J1939 into NMEA 2000 so that it can be displayed on the chartplotter and other Raymarine instrument displays.

Before you get started ordering parts for this project, you should download the ECI-100 manual from Raymarine's site and check on page 28 for compatibility with your Raymarine chartplotter. Also, check here www.raymarine. com/view/?id=8883&collectionid=92 &col=9784 for Yanmar engine compatibility. The equipment list for this project consists of the Raymarine ECI-100, a 20 foot long Devicenet or NMEA 2000 cable with a female connector, and some type of 4-wire connector such as a trailer hitch or Deutsch connector. The Devicenet cable connects the Yanmar network wires to the ECI-100. I found the ECI-100 (part number E70227) at Anchor Express for \$250. A 20' Devicenet cable costs \$35 at Crutchfield (CAB000853-06). The 4-wire trailer

hitch connector costs about \$5 at an auto parts store.

So, here is how it's done. First, turn off all power to the engine and instruments. Remove two access panels in the starboard aft cabin headliner. One is under the legs of the cockpit table and the other is under the winch. Following the backbone cable down from the chartplotter you will eventually find a 5-Way connecting block where other devices plug into the backbone. I found one under the starboard primary winch, but this could vary on each 445. This is jumping ahead a bit, but referring to the photo of backbone connections, the ECI-100 is bottom module. It has a spur cable plugged into the left side and the Devicenet cable on the right. The 5-Way connector is above the ECI-100. The connector was full so I created an additional spur cable connection by adding the Raymarine T-Piece connector (A06028) shown at top right. It connects to the 5-Way connector with a short length of backbone cable (A06033).

It took some detective work to find the four Yanmar network wires, referred to as a CAN bus. The ECI-100 instructions do not identify them and two Yanmar distributors could not identify them either. They did offer a Yanmar kit that packages the ECI-100 with some connector cables. The kit costs something like \$1800. No thanks.

After several hours of web searching, I discovered that the Yanmar CAN bus wires can be accessed either on the starboard side of the engine near the ECU or in the cockpit behind the engine control panel (see engine panel photo). The connection behind the engine panel is best because it is easy to route the Devicenet cable from there to the location of the



Backbone connections



Chartplotter





Engine panel

backbone connector under the starboard winch.

Unscrew the engine panel and pull it out far enough to access the panel wiring. Run the end of the Devicenet cable with the female connector (the end of the cable that screws into the ECI-100) from the engine panel housing down to the aft-cabin, back into the lazarette, and then forward to the area under the starboard winch. Secure the Devicenet wire to other wires or attachment points along the route with nylon cable ties. Back at the engine panel, cut the male connector off of the end of the Devicenet cable, and solder or crimp the cable's four wires to one side of a 4-wire trailer light connector.

The Yanmar manual for the B25 and C35 engine control panel identifies that there are 4 CAN bus wires attached to plug #3 (see the Wire Harness illustration). Find plug #3 hanging off of the wire loom behind the engine panel (refer to the Plug #3 wiring photo). It is not connected to any of the gauges but it does have a 120 ohm terminating resistor connected to it. The resistor is not shown in the Wire Harness illustration. The necessary wires are CAN Ground (the black wire attached to pin #6 of plug #3), CAN Power (red wire at pin #9), CAN High (yellow wire at pin #10), and CAN Low (green wire at pin #11). Remove several inches of electrical tape from the wire loom a few inches ahead of the plug. Strip about 1/2 inch of insulation from the four CAN wires. Solder the other side of the 4-wire connector to those CAN wires so that the Yanmar CAN bus wires connect to the Devicenet cable wires through the 4-wire connector as follows. The black Can Ground wire connects to the black Devicenet wire. Yellow Can High connects to white Devicenet. Green Can Low connects to blue Devicenet. Red

Can Power connects to red Devicenet.

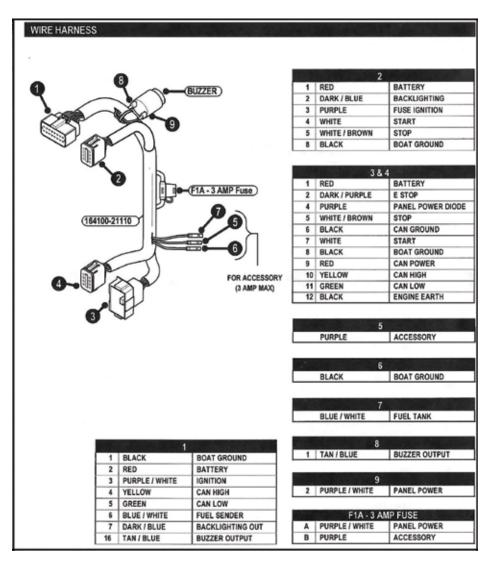
Plug #3 wiring

Tape your connections thoroughly and then tape the entire wire loom.

Once the Devicenet wire splices are complete, plug the 4-wire connector together, close up the engine panel, screw the female Devicenet connector into the ECI-100, and plug the spur cable supplied with the ECI-100 into both the ECI-100 and the Raymarine backbone connector. Now you can test

your work by powering up the Raymarine instruments, configuring a chart-plotter data page with engine information, and starting the engine. Done!

After I found the Yanmar CAN bus wires, the whole project took about two hours. Total cost was less than \$300 dollars. Not bad for a boat project. If you have questions email me: jc387@att.net. **–Jeff Church**, Catalina 445 #125

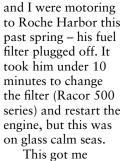


CATALINA 36/375 INTERNATIONAL ASSOCIATION

Fuel Filters • A Journey to Make Changing the Filters Easier and Safer

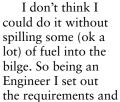


C36 Association Technical Editor Pre Mk II hulls Leslie Troyer



When a friend

thinking, changing my Dahl filter is a challenge at the best of times - what would it be like if I was out and the weather was rough?



bilge. So being an Engineer I set out

designed a solution that fit my budget (<\$300).



- Less than 5 minutes to start using new filter
- No fuel spillage while switching to new filter
- No tools required
- Minimize or eliminate air getting to engine
- Visual qualitative measure of filter
- Able to drain fuel bowl into easily sealed container
- Support fuel polishing

For the Non-C36 MKI readers out there the main fuel filter on my boat is located forward of the galley, on the port side seating area. There is a 5' long cushion, access hatch board and table to contend with to gain access to the filter

I really liked the Dual Racor 500 turbine series filters, but at close to a \$1,000 – it definitely was out of the budget, plus it was even taller than my Dahl - making it very difficult to get anything taller than a pie tin under it for the drain. Additionally, I don't think the turbine portion of these filters would work efficiently with the low fuel flow rates of the M25. That said – a dual filter setup was going to be necessary to meet the first three of my requirements. With the commercial products too big and expensive I selected parts and designed my own.

I contacted Racor on their suggestion for the best fuel filter for my application. They specified the SNAP line of filters. I did purchase one filter assembly and a couple of spare filters. The problem is all the documentation that came with them indicates they can't be mounted inside the cabin. I shelved them for another use. If you look closely at the photos you'll notice that the filter housings are subtly different. One is a true Racor, the other a Chinese knockoff. The knockoff was way cheaper than the real thing but quality of the pipe threads was noticeably worse.

From examining their catalog, I selected the smallest of the Racor spinon filters (120A Series). They provide good filtering in three particle sizes while providing me the clearance under the filter to fit a small soda bottle to collect potential "stuff" from the fuel bowl. I did look long and hard at the extra capacity of the 200 series, but the extra length of the stack eliminated that choice. Catalina Direct sells the 120B filter for all diesel boats up to 36'. The only difference between the 120A & 120B is the replaceable filter on the "B" model is longer – they both use the same bowl and head unit and have the same flow characteristics - so if I need additional filtering I can move up to the "B" model just by buying a different replaceable filter assembly (R13T vs. R12T). For Racor filters the last letter represents the micron size of the filter. They come in three different sizes: S (2 micron), T (10 micron) and P (30 micron). The micron size is NOT the size of the biggest particle that can make it thru a filter, but rather a large percentage (98% IIRC) of all particles of that size or bigger will be filtered out. For engines that have both a primary and secondary filter like on the Universal engines, Racor recommends 10 micron filter media. A mechanic I trust told me that on 90% of the failed lift pumps he replaces, the person is using a 2 micron

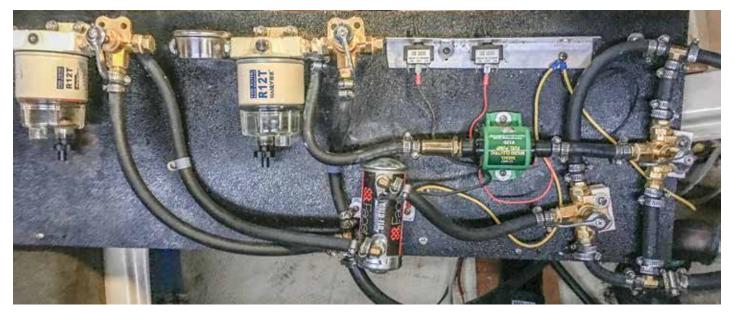
filter. Les's Takeaway: 10 micron filters are sufficient for our engines.

With a basic two filter design you need shutoffs at both the intake and exit. The intake side just needs a simple on/off valve. Since I wanted to be able to polish the fuel if things get contaminated, the exit needed to be able to be routed back to the tank or go to the engine. Polishing also requires that they be upstream of the exit valve so it could pump the fuel into the tank. The exit valve would be a three way positioned after the fuel lift pump. This forces me to install two lift pumps, one for each of the fuel filters. Electrical for the lift pumps would need to come from two sources, one the normal one that turns on with the ignition and a second for polishing which I decided to "steal" from the macerator pump. My pump already has a local on off switch, tapping into the hot side of the switch and adding two on-off-on toggles will allow me to switch between the sources or leave the pump off if the filter was not being actively used. For fuel lift pumps, I wanted to test the composite rotary vane pumps that are available from both Ebay and Amazon at substantial savings (\$23 vs. \$130) over the traditional Facet pumps that are typically used as a lift pump. These pumps have a replaceable 60 micron filter to help minimize pump failures. In case the experiment is a failure I decided to use a traditional pump on one filter set and the rotary vane pump on the other. The big difference I've noticed so far is the vane pump is always running (no thump thump, pause of the Facet), the sound is somewhat annoying but is drowned out by the sound of the motor. Both pumps have the same flow and pressure ratings. I'll report back on how well the rotary vane pump works. For best efficiency, Racor recommends placing the lift pump BETWEEN the engine and primary filter.

By putting in the three-way valves after the lift pump, I also satisfied a requirement of minimizing the potential of getting air to the engine while changing the filters. By turning the valve and switches to the polish position after a filter change the air will be quickly routed back to the fuel tank and never even get to the engine. For

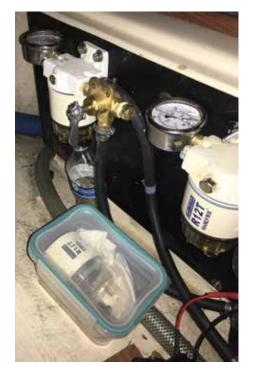


C36 Association **Technical Editor** Pre Mk II hulls Chic Lasser



all of you who are saying "just open up the knurled knob," I don't know when Universal introduced that feature on the M25 and later engines, but it was after mine was made. Opening the knurled knob and running the pump will get air out, but this way is substantially faster.

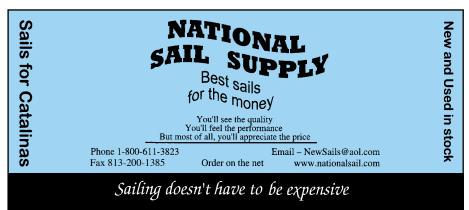
Liquid filled vacuum gauges were obtained from a local hydraulic shop (2 were half the price of Racor branded ones), and installed one of the exit ports of the fuel filter. The graphs for the 120 series indicate that you should change the filter at 5" vacuum, other series can run up to 10" of vacuum. I test the filters monthly by sequentially switching the filter to the polish position and



record the vacuum level in my log book. Racor documentation states vacuum readings should be made at full throttle (full flow). I can obtain a more stable full flow using the polishing circuit, at the dock with the engine off – another win for this design. Please note the vacuum reading is in addition to the suction required to get the fuel to a clean filter, so if a new filter reads 8" – I can take these filters to 13" before the flow rate is impacted.

I know how fast I work and how hard it is to assemble all of these parts upsides down in the boat, so I decided to mount the filter assembly onto a board in my shop and take the finished product to the boat to install. Using a wooden board was out because no matter how careful I was it would always get spilled on and soak up the fuel and smell. I looked at starboard and G10 – while either would work they were both rather pricy. I settled on ¼" ABS in 1'x3', the price was very competitive at under \$20. The filters were thru bolted using counter sunk ¼-20 stainless

hardware. The switches were screwed into holes drilled into aluminum angle. These are attached to the ABS using thin walled Rivet-Nuts (a pop rivet like device that has threads in the center). The pumps are also attached with Rivet-Nuts, with hole patterns for both pump styles. I also tied down the hoses to minimize chaffing. A total of 10' of 5/16 USCG approved fuel rated hose connects all the pieces. I double clamped all the fittings. The two output valves are supported by 3/4" starboard. These valves could have been directly attached to the pumps, but I was concerned that the pump vibration might cause the connection between the two pieces to fail, the hose isolates the vibration that may be caused by the pump. A piece of 1 ½" square tubing is mounted along the top to stabilize the assembly and stand the assembly away from the bench wall tubing is attached to the top backside of the ABS. This sets the panel a bit away from the seat bulkhead, allowing the vacuum gauges to be readable from above. It also made installation easier



CATALINA 36/375 INTERNATIONAL ASSOCIATION

(continued from previous page)

as it avoids having to make cutouts for existing seat hardware. I mounted a piece of 1" square tubing to stabilize the lower edge. Finally, the polishing circuit was spliced into the tank return/vent with a "T" (not shown).

When installing the assembly, I unbolted the old DAHL filter and fuel pump, positioning them above the tank without taking off any of the hoses. Then one at a time I cut the existing supply and feed lines and moved them to the new filters, also positioned above tank level, making these connections above the tank and existing lines very little diesel was spilled. Photo 1 shows the filter assembly just after making the final hose transfer.

Bleeding the engine mounted filter requires running the lift pump just long enough that fuel starts coming out the bleed bolt. This typically requires two people – one on the ignition and one at the engine. By adding a simple push

button switch to one of my pumps, I can turn on/off the pump by simply pushing the button while watching the filter for diesel exiting the bleed fitting.

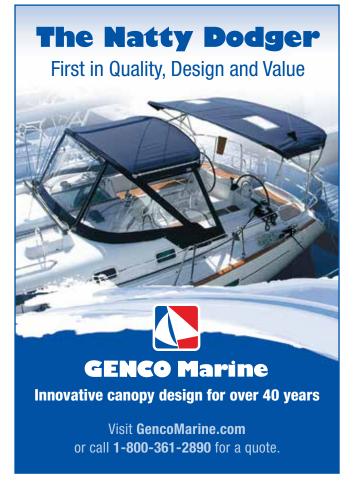
The second photo shows that I can fit a water bottle under the drain in the fuel bowl. To change a filter - the intake and outlet valves are turned to the off position. Fuel is drained from the bowl and filter, which is spun off as a single unit. My spare filter already has a bowl attached (so I don't have to play with the fiddly O ring while standing on my head). The used filter with the bowl still attached is placed in the snap container to contain the residual fuel and smell. Les's Takeaway: Keep part of an oil absorbent pad in the container to sop up any liquid that spills from the filter assembly and keeps the filter from rattling. The new filter and bowl is partially filled with the fuel drained from the old filter (if it is clean enough), and spun onto the filter. Finally, I position the valves to the "polish" position and run the pump for several minutes to purge all the air. This sounds involved but can be done in under 5 minutes with the longest portion time being used to make sure the air is gone. Les's Takeaway: To keep the valve and switch positions straight I used a sharpie to document the various positions on the underside of the compartment cover.

More time is needed to see how well this new design is going to work, but I'm already happy with the result, and feel I meet all the requirements I set out when designing the system. With a spare filter always available to me I doubt I'll ever have to change one while bouncing around, but it's nice to know I can.

In the last issue, I promised I would look into the issue of sticky starter buttons. I have purchased parts and bench tested a 90% solution. Hopefully I'll have the details for the next issue.

-Leslie Troyer, leslie@e-troyer.com





'Local' Engine Start Station Installation

Special thanks to Ralph Lee for submitting this article. **-Chic Lasser**, chiclasser1@yahoo.com



On our previous sailboats I installed an engine START station near the engine compartment. This served two main purposes:

- Ability to start the engine during maintenance without having to scramble back into the cockpit when the steps are not in place.
- As a backup if the cockpit controls don't work properly, or the key is lost.

I repeated this installation when we recently purchased our C36

MkII. This article describes how this was done.

The photo shows the Start station mounted on the starboard engine access door. It is composed of a key operated switch and push button, mounted into a regular PVC electrical box (4"x4"x2½") available at most hardware stores. The 'local' controls replicate the pedestal controls.

The key switch is a 3-position "ignition" switch purchased from a local marine store.

The spring loaded, momentary contact push button was also purchased from the marine store.

Marine grade wiring is used with sizing to match the existing circuit wiring. Four wires are run within protective sheathing from the control panel to the engine. Wiring is appropriately secured to ensure circuit integrity is not compromised from either heat or abrasion/vibration. Wire sizes match or are larger than the corresponding wiring in the existing circuit. Two wires are #10 AWG, and two #12 AWG.

The biggest challenge was locating the appropriate places to terminate the 4 wires. Wiring was traced out and checked against wiring diagram 200360.

The preheat solenoid circuit uses a #12 wire from the 'S' terminal on the key switch, to the 'S' terminal on the solenoid. There is also a #12 wire from the 'I' terminal on the key switch to the oil pressure switch. I spliced the wire to the unused wire 9 at the alternator. Wires 7, 9 and 18 are all possibilities depending on accessibility.

The starter solenoid uses heavier #10 wiring. The 'B' terminal on the key switch is wired to the 20A circuit breaker terminal. The push button is wired to the solenoid using a splice. This was the most difficult splice because of the wire size. There is also a #10 jumper wire inside the box.

Depending on the engine model any accessible wiring locations can be used once the wiring diagram has been confirmed. The most important details are the wire sizes and secure terminations. The panel operates exactly the same as the pedestal controls, including all alarms. The key switch has a spring loaded Pre-heat position, and returns to the normal operation position after engine start with the push button. The engine is stopped using the stop lever on the starboard side of the M35BC engine. **–Ralph Lee,** 2006 C36 MkII, #2299, CEIBA I

Editor's Note: A diagram was also submitted but it was too dark for reproduction here.



CATALINA 350 INTERNATIONAL ASSOCIATION

Catalina C350 Water Lift Muffler - Hidden Drain Screw Repair



C350 Association Technical Editor Bill Templeton

While completing the damper plate replacement on my 2004 C350, (which is now wonderfully quiet with no more noise in gear than in neutral with the PYI high deflection damper plate), I noticed a rust stain below the aft end of

the water lift muffler near where it is strapped to the shelf beneath it. Upon further inspection, I discovered that there is a "hidden" drain screw in the bottom aft portion of the muffler which was badly corroded and clearly had been leaking. This drain screw couldn't be in a more useless location as the muffler would have to be removed to use it. This is something others may want to check

on their boats to see if they also have the drain screw which can result in a big rusty mess.

After cleaning up the head of the screw, I tried to back it out but it sheared off in the muffler. It appears to be stainless steel which rusted in the middle where it passed through the muffler, probably due to anaerobic conditions from water stagnating inside the muffler. The screw originally sealed against the muffler housing with a rubber washer.

Solution: Given the essentially worthless location of the drain plug, I decided it would be better to eliminate it rather than attempting to drill an oversize hold and replace it with a new drain screw just to have it rust out again. I drilled out the drain plug hole and sanded the surface of the muffler around it followed by cleaning with acetone. I filled the hole with thickened epoxy followed by three layers of small fiberglass squares over the hole using a regular epoxy resin mix.

New Drain Petcock: To complete the job, I added a 1/8-inch NPT brass petcock on the front face of the muffler to allow for draining in an appropriate manner (similar to the drain screw provided as part of the Catalina exhaust anti-siphon kit around 2006, but is more robust). I drilled and tapped the fiberglass muffler material which was at least a quarter inch thick and used Teflon tape around the petcock when I screwed it in. After putting the muffler back in there are no leaks so the repair seems to be holding up well. —William Van Wagoner, P.E.C350 No. 229, Destiny, July 26, 2017





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CATALINA 34/355 INTERNATIONAL ASSOCIATION

Saloon Table 2017



C34 Association Technical Editor John M Nixon

C34 Associate Technical Editor Ron Hill We are happy to once again have a articles from Stu Jackson! **–John Nixon**, *Orta Vez*; Hull #728, c34hull728@gmail.com

During our sail from northern California in 2016 and our first season of cruising here in British Columbia, we found ourselves spending more time below, primarily in

the seat just forward of the galley facing forward. More elbow, hip (and belly!!!) room was called for. I have read all the salon table posts and tech notes. I've seen many handsome and elegant examples of innovative tables in my years in San Francisco and at the B.C. Canadian & the American Catalina Rendezvous this past season.

Design Criteria & Ideas:

After examining the variety of options that we'd seen and read about, Cory and I decided that cutting off just a small amount of the aft edge of the table was the favored approach for us. It was the only place where we both agreed needed any adjustment. It afforded us advantages over either buying or making a new table. We didn't want a new table, we like the white Formica, it is in pristine condition. We can reuse the fiddles. We don't have to store the old table on board or at home, and we don't have to cut a curve for the mast in any new table. We have only used the insert cushion once or twice in 20 years and that was back in 1999.

One example that led us to our solution is from Turk Yonar (*Tradewinds*, #858) in the forum topic Salon Table Ideas – Table Flix. He posted photos of the table he had made that was identical to the OEM table but that was four inches shorter on three sides. He noted this important feature: "When pushed down and cushion inserted still used as an additional bed. No comfort compromise." Turk's work proves that our slightly smaller table will still work as a support for the insert cushion.

We received further inspiration from Carolyn Daley (*Shannon's Spirit*, #128). She kindly lent me her own cut down table, which was nine inches shorter than the standard table at the aft end. We laid it on our own table on the boat and found that to be a little too much of a reduction for our use. Interestingly enough, it was the very first time I had seen that concept of just cutting off the aft end. Ron Hill (*Apache*, #788) had cut the end of his, but he made a hinged drop leaf of it.

We had Carolyn's table at our house for most of the summer. I kept looking at it, trying to figure out what material to use for finishing off the new raw edge. It finally dawned on me (doh!) that the long starboard side fiddle is perfect to use as trim for that raw edge, and when I looked closely that was exactly what had been done on Carolyn's table. I fiddled around with the fiddles (sorry) based on the five inch cut we envisioned would work for our use. The aft port fiddle still covers the inboard side without any cutting and the old aft end fiddle has been re-purposed to the long starboard side — each of them is long enough to cover the existing mounting holes through the table from the old fiddles.

Making The Cut:

We have a big table saw in our new home. I failed wood shop in high school and knew I needed help to establish enough courage if I was to even consider cutting the table myself. The Forum was a great help. We received valuable assistance on the details necessary to make the cut through the Formica-and-plywood, including using the part that was to be removed as a "test bed" for checking out the cut as a first try. We also discussed and agreed on a total reduction of 5½ inches; the cut would be 6½ inches with the one inch fiddle added back on for the trim.

We discussed the design concept with friends as we explored all of our options, including using professional services. Our good friend and sailing buddy Len lives in a community with a complete woodworking shop. Len's friend, Iain, is a master woodworker who volunteered his time and expertise to operate the table saw in the shop.

Morgan removed the six screws from the bottom of the table holding it to the support tube and put them into a handy zip lock bag for safe keeping. I removed the three fiddles and we brought the long one home along with the table. We reconfirmed our measurements. The starboard side seat cushion back is 21 inches from the edge of the table. The fore and aft seat backs are only 141/2 inches. No wonder it always felt cramped. Removing the aft end would make the clearances almost the same as the starboard side. We were not concerned with the forward seat and left that end as is.

We met on a rainy Tuesday morning in late October. Len and Iain selected the



The Cut

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correct blade to use and set up the table saw. I explained what the plan was for the cut and the installation of the fiddle on the edge. Iain did a test cut of about two inches on what would become the scrap piece, and the blade cut the Formica like butter with no irregularities. The 6½ inch cut was set up and Iain slid the table through with no effort. He then laid the old long fiddle against the edge and made one angled cut to match the length.

For this woodworking novice, Len and Iain instructed me on how the old fiddle would be connected securely to the edge. The biscuit cutting machine was laid up against the now-new scrap piece and the height adjustments were made on both the fiddle and the scrap. Iain cut about a half a dozen slots in both the table and the fiddle, applied glue, inserted the oval shaped biscuits, and used three long clamps to secure the two pieces together.

Another woodworker, Emile, dropped in to see what was happening in the shop. He and Iain suggested that they trim the top of the new edge fiddle to match the edge detail on the rest of the table. It only took two passes with the router to trim that small amount. It makes the Formica on the new edge "stand up" like the rest of the table.

The Finished Product:

It was easy to replace the table on the tube. I marked the holes for the screws on the bottom of the table to make it easier get them lined up in the right place. The two top fiddles and the new edge got treated with teak oil. The inboard port fiddle needed two



Elbow Room - The Finished Product

new holes drilled to line up with the remaining holes in the table, as did the starboard one. I haven't seen the need to add a third screw on either of the top fiddles.

To darken the tiny amount of raw edge between the Formica and the new edge fiddle from the router work we used Minwax mahogany wood stain.

This solution works for us. Having seen the astonishingly wide variety of other results that very clever Catalina 34 skippers have come up with simply makes this one of hundreds if not thousands of "answers."

We implemented our design goal of simplicity and the reuse of the existing table and fiddles. We usually use our laptop at that seat, so the removal of the top edge fiddle at that end is helpful. We can get in and out of that seat much more easily, and there is the greatly

improved access to the starboard storage compartments and seat.

Many thanks to all who helped and responded to my questions about cutting the table on the Forum. And to Carolyn and Kathy for the loan of their table. And to those who shared their inventiveness both on the C34 website and in person. And special thanks to Iain, Len and Emile who really did all the heavy lifting. **-Stu Jackson**, Aquavite #224

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Corner Detail with Old Inboard Fiddle and the New Edge with Teak Oil

CATALINA 320 INTERNATIONAL ASSOCIATION

Stationary Salon Windows Replacement Procedure Summary



C320 Association Technical Editor Chris Burti

With the ageing of many of our hulls, the oldest approaching 24 years, acrylic lenses and sealants may be reaching the end of their lives, so this is a project that may interest many of us.

Special thanks

to Dave Hupe for

submitting this article. -Warren Updike, wupdike@hotmail.com

I purchased my 1994 Catalina 320 (hull #32) early during the spring of 2017. At that time the boat had several leaks including seepage from the forward, port side stationary salon window (fixed portlight,) above the navigation station. The various boat manuals that had been stored in the navigation station were mildewed and pages stuck together due to repeated water leaks. It wasn't long before the aft, port side salon window also started to leak. These original window lenses were both screwed and sealed in place (Catalina has since stopped using screws, just sealant) and there were numerous cracks around the mount holes as well as general scratches/ crazing. I determined that it was well past time to get serious about replacing all four salon fixed lenses to stop the leaks and for aesthetics.

I contacted Catalina Yachts in Florida for replacement lenses, since I could not locate someone local to provide lenses as rapidly as desired. Since my boat had been originally manufactured in California, Catalina was not sure about exact lens sizes. Therefore, they requested tracings of each window be sent to them which they would compare to existing lens patterns. They indicated that if my tracings matched their patterns they would use their patterns. Otherwise, they would cut lenses to match my tracings.

I made my tracings by taping good quality rolled paper tightly over the in-place windows and using a pencil to trace the sharp window lens edges. Catalina then wanted me to cut out the shapes carefully before mailing them to Florida.

The lenses I received from Catalina did not match my tracings as well

as anticipated (I had made/retained duplicate tracings that I was able to use for comparison). However, I still was able to install the new lenses satisfactorily. The sealant used (black Dow 795 recommended by Catalina) accommodates a lot of variability regarding the fit of the lens. This sealant is very flexible/ rubbery and resilient for this use. Two of the lenses were slightly large for the window openings. In this case, the lenses "stood proud" of the window recesses and the resulting finished outer edge seals are thin, but the sealant behind is thick. In comparison, finished sealant edges/borders are wide when the lens is small for the opening and sits down in the recess. The lenses from Catalina are beveled inward on the edges to match the window recesses. The bevels are cut at about at a 30 degree angle. However, it is not just a straight angle. An outer butt edge and then a recess is left to prevent chipping of what would have been a sharp edge if not for the intentional butt edge. My original lenses had just straight 30 degree beveled edges.



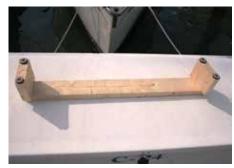
New Window Lens Bevel Edge

Below is my step-by-step outline of the procedure I used:

1. Prepare braces that will be used to hold the new lens in place (primarily to hold pressure on the front and rear ends to maintain the slight inward window bow/curve that occurs when set in place while the sealant partly cures). The lenses are flat, not curved when received. These braces can be made simply/inexpensively from lengths of 2x4 wood slightly shorter than the lens and 2 end "feet" of 2x6 wood (about 6 inches high) screwed in place. I used furniture

leg pads with rubber bases screwed to the outer 2x6 edges to help prevent the braces from slipping on the lens protective paper when clamped in place, and also concentrate pressure on the outer corners. When set it place, these braces will allow you to work completely around the perimeter of the new lens to remove excess sealant and smooth it just after placement. Also, the tape around the opening can be removed without unclamping the brace. The brace can be held in place/pressured with a single ratchet strap clamped to the handrail above the window and the jib car track block (slid where necessary to put good pressure on the window lens). Figure out this placement on the old lens before removal. Other methods of holding pressure on the lenses (as recommended by Catalina) can include weights hung by rope from the handrails above the windows, or wedges held in place somehow. Another procedure recommended by Catalina involved Duck Tape and wood wedges.....I suggest DON'T use this unless you want a big chore removing the tape residue later. I made 2 braces so that I could work on several windows simultaneously one brace for the front window and another for the rear window. The rear brace needs to be longer to span the lens sufficiently and pressure the outer ends. Also, specific feet on the braces will need to be attached at an angle to match the front or rear ends of the window lens. Work this all out on the old lens while still in

2. Cut plastic sheeting to tape inside the cabin around the window opening to collect associated dirt. Tape it first below the window and ready pieces of tape to eventually tape it above the window and on the sides.



Wood Brace With Feet

- 3. Remove the original window lens mount screws on the outside and run a utility knife around the lens perimeter to cut/loosen the sealant. Be careful not to cut the fiberglass of the window opening/recess.....slant the utility knife blade inward toward the lens center.
- 4. From inside the boat, push on the lens edges to begin dislodging the lens. Once the lens starts coming out, finish taping up the protective plastic sheeting inside the boat over the window opening to keep the inside clean. It will then take pulling carefully along the lens edges from the outside and inserting a putty knife behind the lens to gradually remove the lens. Others have suggested using monofilament line in a sawing motion behind the lens to gradually cut the old sealant. Be careful as the lens may break.
- 5. Once the lens is removed, scrape the old sealant away from the window recess. The old sealant should peel away fairly easily. Continue to scrape, vacuum, and clean with acetone to remove as much of the old sealant as possible.
- 6. Sand the entire window recess that the new lens will adhere to (but not the inner "window sill" of the window opening) with medium to coarse sandpaper, vacuum, then clean well again with acetone (including the "window sill" area). From outside also vacuum out the debris that has collected in the plastic sheeting "pocket" covering the inside of the window opening.

- 7. Tape the outside edge of the window recess using easy-release painter's tape.
- 8. Without removing the protective paper on the new window lens, dry fit the new lens in the opening. Use sufficient pieces of painter's tape to temporarily hold the lens securely in your desired best fit position that will optimize the seal entirely around the new lens.
- 9. On the outside perimeter painter's tape and the outer edge of the protective paper on the new lens, mark several sets of alignment line reference marks. Also, temporarily untape the plastic sheeting inside the boat and tightly trace the window opening outline with a pen on the inside protective paper.
- 10. Remove the new lens and tape the entire inner "window sill" opening with painter's tape. Also, tape the plastic back up inside.
- 11. When taping the perimeters, run the tape in one direction and leave a loose tab so that the tape can be removed in one clean pull when desired. Use consecutive small tape pieces taped across each other to make rounded corners.
- 12. Leave the outside lens protective paper on until all work is completed! However, on the inside of the lens, cut carefully/completely with a sharp utility knife blade along the line that was traced on the inner protective paper (matching the inner window opening).
- 13. Pull off the protective paper from the inside of the cut line (exposing what

- will be the clear lens view area inside the boat). Then carefully tape back over this cleared area with strips of painter's tape that can easily be removed after the window is set in place with the sealant. Again when taping, run the tape in one direction and leave a loose tab so that the tape can be removed in one clean pull when desired.
- 14. Remove the remaining thin strips of original protective paper on the inside of the new lens (this will be the ultimate mounting surface primarily about 1 inch wide, but also will be nearly 6 inches wide on the starboard side lenses where the lenses span bulkheads), then sand the exposed edges of the lens and exposed flat lens surface with medium to coarse sandpaper to prepare a good bonding surface. Lastly, clean well with isopropyl alcohol (not acetone) to remove sanding dust residue and any grime.
- 15. Get ready plenty of paper towels, a garbage can, and some plastic putty knifes and acetone.
- 16. Have available a minimum of 1.5 2 caulk tubes of Dow 795 black sealant and a good caulk gun.
- 17. REMEMBER as you prepare to apply the sealant......for a good job, more sealant is desirable as opposed to insufficient sealant (even though it will be messy during the process)!!!!
- 18. Get the ratchet strap ends in position/ready (although kept sufficiently away from the window opening) and the brace nearby.
- 19. Apply sealant quickly/liberally to the entire window recess with a caulk gun, being careful to provide a smooth and thick surface. Pay attention earlier in this process (step #8) to how the lens dry fit initially (determine earlier if the lens will "sit proud" in the opening, in which case a thicker seal will be needed underneath, or will the lens sit down well in the opening in which case less sealant will be needed?). Make sure when applying sealant to extend outward (close to the outer window recess) so that the new lens edge seats well in sealant. Just before placing the lens you can quickly smooth the sealant with a plastic putty knife being very careful not to reduce the thickness of the sealant. Note - you can't pull the lens back out if at the last second you realize vou used too little sealant. Remember again....more is better than too little!
- 20. Carefully/slowly place the lens in the opening, using the alignment refer-



Dry Fit New Lens

CATALINA 320 INTERNATIONAL ASSOCIATION

(continued from previous page)



Sanded and Cleaned Lens Mounting Surface

ence lines on the protective paper and outer ring of painter's tape as guides. Push the lens firmly into place....the sealant should "grab" the lens pretty well. However, don't push so hard that the sealant squeezes out too much until the brace is in place to hold steady pressure on the lens/sealant.

- 21. Carefully install the brace over the new lens and tighten the ratchet strap, being careful not to disturb the alignment.
- 22. Quickly clean excess sealant away from the window edge and edge of the painter's tape surrounding the window recess with the plastic putty



Window Lens Installed, Clamped and Edge Finished

knife and/or smooth carefully with your finger tip. Don't overdo it and do this quickly, since the sealant will start to skim fairly rapidly. If the lens is loose for the opening, don't push hard/indent with your finger around the edge (leave a good border of sealant to achieve a fairly flat blend from the new lens edge to the gelcoat of the window opening).

23. Go inside the boat, remove the protective plastic, and clear excess sealant/smooth tightly around the inside edge of the window with your finger (while also pushing excess sealant into any open spaces around the inside edge).

24. Go back outside and carefully remove the painter's tape surrounding the window opening before the sealant starts to cure too much. Don't pull up/out....pull forward/parallel with the gelcoat surface to get a good clean break.

- 25. Remove inside painter's tape in the same manner.
- 26. Allow the sealant to cure at least a full day (better two days) before removing the outside ratchet strap and brace.
- 27. Carefully lift a corner of the outside protective paper with a utility knife blade and pull off along one edge at a time slowly (also pulling parallel with the window surface, not outward/ up to avoid pulling the seal too much). Carefully cut the paper/sealant interface, if needed, with a razor blade (sliding the blade flush with the window face).

28. DONE (except for maybe a little careful wiping with acetone if there are any small smears of sealant).

This took me the better part of a day per window. **–Dave Hupe**, 1994 Catalina 320 (Hull #32) – Mayan Sun, Holland, MI

End Note: On our Association Web Site, www.c320.org, search "portlight" to find "Portlight-Window-Replacement Documentation" that Catalina provided. There are two pages, one from 1983 and one from 2014. Here they recommend using duct tape with wedges to press the lens. Dave's approach using wood braces makes it easier to complete the steps with the braces in-place. Note that there are additional photos available for this project by sending an email to Warren Updike at wupdike@hotmail.com.

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CATALINA 30/309 INTERNATIONAL ASSOCIATION

Starboard Bulkhead Repair



C30/309 Association Technical Editor Max Munger

Special thanks to Ed Reimbold for this article. -Max Munger, maxmunger@verizon.net

My I980 Catalina 30 #1914 had the starboard bulkhead lift about 1" and pull away from the hull l/2" (see figure #1) Prior to my purchase

the boat suffered from severe neglect. It was obvious that water had been leaking into the boat and weakened the lower part of the 1/2" teak plywood bulkhead and the plies separated at the bottom allowing the bulkhead to lilt. The hanging locker doors did not close due to the bulkhead movement. When the tension was taken off the rig the bulkhead did not go hack in place and it was obvious that it would have to be forced unto position.

Materials Needed:

- One 1 3/4" x 1/4" x 39" SS chain plate extension with three 3/8" holes drilled as follows. at 1 1/2" from the end. at 34 3/4" from the end and at 37 3/4" from the end.
- Two conduit clamps.
- Two 3/8" x 2 1/2" bolts, nuts, washers, and lock washers.
- Three fender washers. Spacers or Washers with a 3/8" hole.

Tools

- A vang, a 4 part tackle made up with a 1/2" threaded rod. A 1/2" turnbuckle and two electrical conduit clamps the type used to attach conduit to I beams that have 3/8" threaded holes. Wooden shims.
- A Dremel Moto-Tool with a Zip Bit
- An electric drill and 3/8" bit.

Procedure:

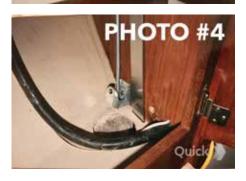
Loosen the uppers and lowers so that there is no tension on the uppers. Cut a slot in the floor of the hanging locker so that the 1/4" x 1 3/4" stainless steel bar stock will pass through the floor. (See photo #2) This slot should be centered between the two 3/8" bolts closest to the hull that fasten the bulkhead to the knee while laying flat against the bulkhead. Cut an access hole in the floor (I had a 4" knock out plug so I cut a hole to match).



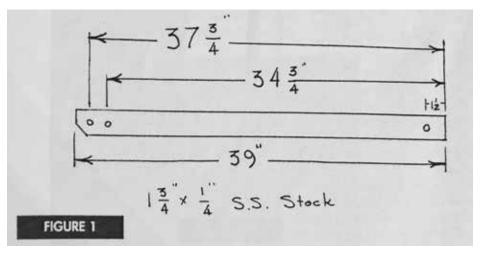
Loosen and remove the 3/8" bolts that attach the bottom of the bulkhead to the knee. Remove the nut and washers from the lowest chain plate bolt. Set the chain plate extension through the slot in the bottom of the hanging locker floor and set over the bottom chain plate bolt at the top. Attach a conduit clamp to the bottom chain plate bolt at the top and the outermost bulkhead bolt at the bottom and attach the turnbuckle and threaded rod as per photos #3 and #4. Tighten the turnbuckle until you have pulled the bulkhead and locker into its original position or as close as possible.

In order to get the bulkhead pushed back into its original position against the hull use the hanging locker clothes rod, a couple of wooden blocks and a mallet to force the bulkhead up against the side of the Hull. Using the 4" access hole and Dremel and zip bit, drill a





Prior to my purchase the boat suffered from severe neglect and the hanging locker doors did not close.



Quick >



small 1/8" pilot hole through the center of the two holes in the lower part of the chainplate extension, through the bulkhead and the fiberglass knee. From the inside of the settee storage compartment, Drill through the 1/8" pilot holes with a 3/8" drill bit, through the fiberglass knee and the bulkhead on the

With the bulkhead in the proper position, put wax paper on the floor of the hanging locker pushed under the bottom edge of the bulkhead. Mix up some west systems Epoxy and saturate the lower part of the bulkhead where it has delaminated.

top bolt and just threw the fiberglass knee on the bottom. Install the nuts bolts and washers on the two bottom holes of the chainplate extension. You will need to add spacers or washers in between the chain plate extension and the knee to fill the gap before you tighten down the bottom bolt. Put the nuts and the washers and tighten both of these bolts on the lower end. Remove the turnbuckle assembly and attach nut and lock washer to the lower chainplate connecting bolt.

With the bulkhead in the proper position, put wax paper on the floor of the hanging locker pushed under the bottom edge of the bulkhead. Mix up some west systems Epoxy and saturate the lower part of the bulkhead where it has delaminated. Inject epoxy into the holes for the 3/8" attaching bolts and while the epoxy is still wet install the two 3/8" bolts and fender washers and tighten them down. After the epoxy has set remove the cloths pole, tighten up the shrouds and tune the rig. Now my hanging locker doors close and you'll feel comfortable going out in heavy air. **–Ed Reimbold,** Troika 1980 TRBS #1914, Lake Lanier, GA c30troika@gmail.com



Video of UPGRADES: http://youtu.be/ Tk0jmQW3DkE

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CATALINA 30/309 INTERNATIONAL ASSOCIATION

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NMEA Installation

I have a 1981 TRBS #2276. After 32 years, all my DataMarine instruments were beyond repairing. My plan was to use new NMEA 2000 based wind/depth/speed units. I purchased a Maretron wind unit that uses sonic detection of speed and direction. I am trying to outwit the Ospreys who like to destroy wind cups, arrows (and Windexes). I also purchased the NMEA cabling system from Maretron. I used bulk cable and field installable m/f connectors (not easy!) to avoid expensive fixed length cables.

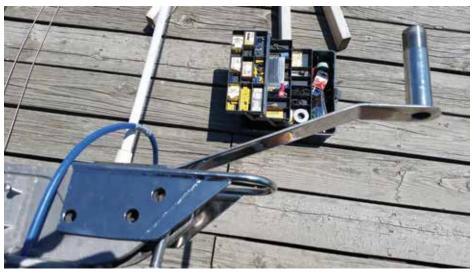
I also contracted with a local stainless fabricator to make a masthead mount for the unit projecting forward of the mast. I have the older Yachts Specialties Steering system so I purchased a new higher pedestal guard from Railmakers to house a new multi-display Garmin chart plotter above the wheel. The mast was down and the labor involved removing all the old cabling and routing the bulk cable to new locations.

The mast refit was easy enough with the new mount bolted into the mast crane. Pulled the old cable, dragging the new cable along. I had long ago moved all my halyards internal and installed a PVC tube for new electrical cables. Just like the VHF cable, I left a few feet of NMEA cable dangling from the mast foot. A new LED anchor light and LED steaming light were installed. And a new Windex!

Like many owners, I am just getting around to modifying my mast step. The old dealer installed VHF and wind machine cables (inside the mast) exited down thru the deck via a slanted bore toward the top edge of the mast support column. No holes in the column. The factory mast lighting wiring simply disappeared into the hole. I had sealed this off many years ago (no leaks) but it was time for 'the fix". That 'fix' is a PVC tube thru the mast step and into the mast column below for all the wiring. I bored the new wiring exit holes in the port side of the mast column just below the ceiling in preparation. Mated male/ female inline connectors are quite long,



NMEA Mast Column



NMEA masthead bracket

so I made (2) 1.25 borings into the port column member and joined them with straight edges. Now all mast connections would be thru the deck and exit just inside the head area.

I wanted to include the mast wiring in the PVC, and unfortunately I found that it did not run down the column to the bilge as expected. Digging out the old sealant/filler tore up the old factory wiring connection so I proceeded with my holesaw into the deck. That hole unveiled several surprises. The first was that the factory wires were embedded into the deck/bridge going to portside. Inspection turned up the same wires exiting the deck behind the head cabinet right at the bulkhead. They then run down the port side eventually to the electrical panel. The wires are attached behind a deck stiffener(?) molded under each side deck. I grafted extensions to each wire and led them back into the head and over to the mast column where they could meet the new mast wires from the PVC tube. One good thing, the deck area proved to be very dry after 32 years!

I found the deck mast step plate to be on the centerline CL of boat, but a full inch forward of the line between upper spreader bases! And yes, the mast column support centerline CL is offset approx. ¾ to SB of the boat CL! The mast column is also some 2" forward of being squarely under the mast step. The deck/bridge is approx. 3" deep at this point. I found an existing circular area at the front of the mast step (deck plate) cutout oval. It looked like a hole that had been filled! The area matched my calculated spot for the deck hole (for new PVC tube). Once opened up, it just overlaps the portside member of the mast column because of the offset. The sides on my column where 1.25" thick! I also found several 3" SS screws protruding into the same area. Not good for the holesaw. They came up from the aft and SB side mast column and up into the deck. I removed and cut ½" off of each screw and returned them. Surprisingly, none from the port side! I assume they keep things from shifting under any

I installed a 6" thin wall 1.25 PVC tube just big enough for all my wires



NMEA Mast step

and end connectors. I know that is short, but I also have drain slots in the mast and step to exit water. I cut off the old above deck wind/VHF connectors and pulled the old cables down into the head where new connectors would be added. Plenty of slack. Epoxied the tube in place and filled the remaining excavated area. Mast step now complete. I could have installed the Garhauer plate but decided it was not needed.

The new NMEA cable runs to port, out of the mast support column, across

the head and into the cabinet over the sink. Then down under the sink and v-berth, under the hanging locker and starboard settee. The new depth/speed sounder tee and cable joined near the vberth door. The NMEA cable continues under the hanging closet and starboard settee and under the battery box and the qberth to the pedestal and new chart plotter multi display. A tee under the nav station provided the power connection from the panel above. A separate on/off switch controls the NMEA power.

The old pedestal guard was removed and the new higher guard installed. This required a hole in the sole for cable and power up the tube for the chartplotter. That also required a hole/slot in the tubing located where the plotter housing brackets attached. No exposed wiring. Stainless is very hard to drill and cut! The housing and plotter were installed cables and wires connected and the new system was turned on for a test. Nothing worked! Inspection finally found some field connections (tiny wires) were insufficient, but redoing them solved that problem. The Garmin plotter case did require its own NMEA plug for proper operation.

The system has worked well now for a year. The multi-display means crew are no longer blocking helm view of instruments and the interactive layline displays were an unexpected and very useful addition for tacking and racing! The installation was harder than expected because of the modifications needed to an older boat. The real expense was for the new plotter and wind instrument. An NMEA cable is itself, a very easy project for DIY. **–Max Munger**, sy SherMax #2276 1081 TRBS, Chesapeake Bay MD



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CATALINA 28 INTERNATIONAL ASSOCIATION

Winter Project • 12v L.E.D. Strip Lighting Installation

This first article is from Bob Storrar who sails hull #177. **–Ken Cox,** kenneth_cox@sbcglobal.net

I always felt that the stock cabin lights cast a bit of gloom in the cabin due in part to their position on the under-

C28 Association Technical Editor Ken Cox side of the side deck as well as the slight yellow cast from aging plastic covers. To add a more festive

atmosphere to the cabin of my C28, I mounted 12v LED strip lighting just behind the existing wood trim at the top interior cabin sides. The existing wood trim extends just enough beyond the cabin top to hide the LED's segments.

The higher location of the light source changes the dynamics of the shadows and the cabin is filled with reflective light rather than directly from the original light fixture.

My stock, incandescent bulbs in the light fixture mounted port and star-

board are 20 watts each, times 4 bulbs equaling 80 watts or 6.6 amps if both sides are illuminated simultaneously. Compare that with about 3 amps for LEDs lining both sides of the cabin. Not only are you adding a bit of class to the cabin but you are also using considerably less energy to do it.

Installation

Weather proof strip LED lighting tape with adhesive backing can be purchased by the roll at Home Depot, Amazon, etc. The adhesive on the back of the tape doesn't stick very well in a moist environment for the long term. Basically, the adhesive is there to help you get initial set then you will need to use a secondary method to keep the tape in place. A thin line of clear silicon calking works well for long term adhesion.

After cutting the LED tape to length, a plastic connector (for power) is attached to one end. Pay close attention





to the positive and negative alignment between the LED tape and the connector. The connector can then be plugged into the wire going the power source.

After mounting the LED strips behind the wood trim with the power connector positioned at the forward end of the trim, I loosened the bulkhead screws along the top of the bulkhead (on the bow side of the bulkhead) allowing me to hide the wire in between the cabin top and the stern face of the bullhead. From there, you can snake the wire along the cabin to the electrical panel. The port side is fairly straight forward. The starboard side requires a bit of Houdini antics to get the wire under the cabin sole and up to the panel. I personally choose not to run the wires back to the panel but rather wire straight into the forward light fixture to avoid running wires back to the electrical panel.

Words Of Wisdom

- Unplug your 120V shore power and disconnect the batteries when you are servicing the back side of the electrical panel.
- Carefully read the instructions on the LED packaging so you fully understand the installation process
- Some kits don't include enough connectors. Some kits include a 120v-12v transformer that you will not need. Do your research before your purchase. If you bought only the roll of tape from your local box store you can easily find the connectors, dimmers, remotes, etc, through Amazon.
- Purchase LEDs that are designed for a wet environment such as in automotive, RVs, or outside deck applications
- Be careful to insure that you are buying a weather proof 12v lighting system. Some sources are now selling 24 volt strip lighting.
- Spend some time on YouTube reviewing how other people have installed LED strip lighting. Spending a few minutes with the right video can save you hours of frustration.
- Although working with a 12v system is relatively safe if normal precautions are adhered to, you might consider recruiting a friend who is experience in marine wiring.

-Bob Storrar

Red Dot Heater installation

This second article comes from Tony Bacon regarding a Red Dot heater installation that he did, Bill Apt also did a similar installation and that was the guiding light for Tony to do it in his boat also. **–Ken Cox,** kenneth_cox@sbcqlobal.net

Red Dot heaters utilize excess heat generated by the engine to heat the boat. This is the same method used to heat your car. Installation is a matter of splicing the heater into the engines coolant line and providing power to the heaters fan. The coolant runs through the heaters radiator and the fan circulates cabin air through the radiator. I installed a 16,000 BTU unit which is just right. Any larger and your engine may dip below acceptable operating temperature. #191 has a 170 degree thermostat and we find that with the heater on high underway engine temp may drop to 160

which is the low end of acceptable range.

Cruising in the Spring and Fall as the seasons change is a favorite for Bernie and I for the slower paced relaxation it provides. We like the coziness hanging out in the salon being warm, cozy and self-contained like kids in a fort or tree house — but yeah, warm.

Before the addition of the red dot our sole source of heat was our propane furnace. The furnace works great. If we had a 20# propane tank this furnace alone would be sufficient. With the 5# tank we're pushing the limits on our weekend excursions.

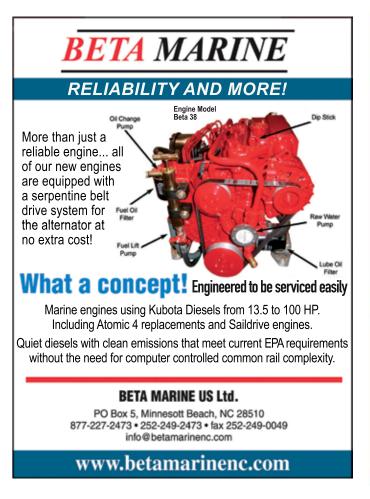
We found we used quite a bit of propane upon arrival at the dock running the furnace on high for a couple of hours or more before we would feel all around comfort. It takes time to warm up all the interior surfaces. Once heated we can usually get by on the low setting. The 5# tank was not always enough to

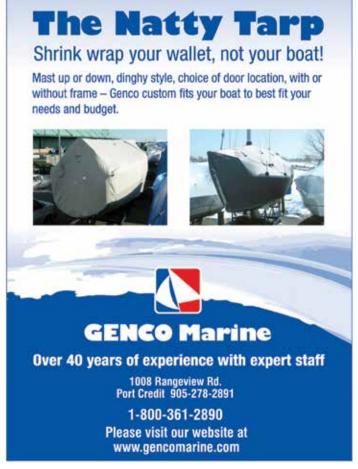


Red dot heater controls

get through a weekend. Carrying a spare tank or an adaptor for the 1# bottles would also solve the problem and I was considering this.

I read a post and viewed photos of a red dot install done by Bill Apt, previous owner of *Lol Hn* 130. Bill described arriving at his destination with salon already toasty warm. I decided that is what I wanted. This would provide propane savings making the 5# bottle adequate. An added benefit is no wait





CATALINA 28 INTERNATIONAL ASSOCIATION

(continued from previous page)



Red dot heater under companion way

for the cabin to warm up and there is the bonus of having a warm cabin en route. You can find pictures of Bill's very professional looking install in the photo section of the Catalina 28 yahoo group.

The early pre-MKII 28 models provide a convenient and practical location for the red dot just below the companion way passage over the engine cover. This may also work for the MKII but I can't attest to that. Engine coolant lines are just a few feet away on the other side of the head wall. The heater pulls air from the aft cabin through the radiator blowing it forward into the salon and vbirth. If cockpit heating is desired ducting could be added to do so. My choice would be a removable temporary duct attached only when needed with a duct hose coming into the



cockpit through the aft cabin portal or over and out the companionway along the side back to my feet. An enclosed cockpit would be kept reasonably warm this way.

Unless you only use your boat in colder temperatures you will want to install bypass valving to keep the radiator from passively heating the salon during warm weather. I elected to install a heater control in the cabin to remotely control an automotive style bypass. The heater control has two knobs, one controls coolant (heating) flow, other controls with three positions, off, low and high. What I found is that we always run the heater on high and the fancy control isn't an advantage other than making it easy switch coolant flow on/off without needing to remove any covers to gain access to the valves.

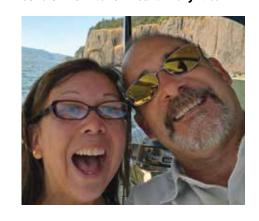
Our install costs were somewhere between \$250 and \$300. I believe Bill's install was much cheaper as he found the unit on Ebay for a steal. I bought mine for about \$200. Additional cost was for control, clamps, the automotive style bypass valve, hoses, wire and a bypass control cable. I apologize that I do not have part numbers. I had carefully documented all of that in pictures on my cell phone. The phone has long since gone to the bottom of the river.

What I can tell you is the heater comes in two hose sizes, 5/8" and 3/4". The hoses on #191 are 5/8". I went with a single fan 16,000 BTU unit like Bill used. I googled heater bypass valves to locate a valve commonly used in custom hot rods. I found the control on Red Dots web site and the cable at

Cruising in the Spring and Fall as the seasons change is a favorite for Bernie and I. We like hanging out in the salon being warm, cozy and self-contained — but yeah, warm.

http://rayeveritt.com/HeaterCables/ HeaterCables.html. The heater hoses are pre-formed with bends that route nicely from the connections facing aft coming off the heater to the wall on the side purchased from an auto parts store. I was allowed into the back to peruse their selection. You might need your imagination here. I found one hose that was perfect and wanted two but they only had one. I found another much longer hose whose mid-section matched the desired bends and angles and trimmed excess to fit.

In the pictures note the following: The red dot heater fits behind the accordion style curtain. The location I chose for the control is ahead of the support post on the starboard side of the bulkhead aft of the engine, it would be visible to the left of the red dot but I took that picture before the control was installed. The control valve is installed behind the cover in the aft inboard corner of the head and faces to starboard to allow a straight control cable route. I made a simple mount for the control from 7/16" Teak. —Tony Bacon



38 CATALINA MAINSHEET

Preparing for Spring Commissioning

Mike Smalter prepared a winterization check list for us last fall, it might be a good reminder as you prepare for spring commissioning as to how you left what. **-Ken Cox**, kenneth_cox@sbcglobal.net

Pump out the holding tank

- ☐ Empty both water tanks by running the water until it runs out, then switch valves and empty the other one.
- ☐ Drain or put antifreeze in the pressurized water system. I use antifreeze. I installed a bypass valve on the hot water heater so that no antifreeze gets into it. You don't want any antifreeze in the water tanks or hot water tank, as it is hard to get the smell out. I undo the hose fitting just before the pressure pump and attach a short hose that goes into the 1 gallon antifreeze bottle. Then I run each faucet (head, galley, and stern shower) until it runs red on both the cold and hot faucets. I drain the hot water tank the best I can, then I add 1.5 liters of cheap vodka to it. Opening the pressure release valve drain the hot water tank.
- ☐ Change the oil and oil filter in the engine
- ☐ Drain any water from the bottom of the separation filter
- ☐ Fill the diesel tank to minimize condensation over the winter
- ☐ Put a gallon of antifreeze through the head pumping system.

After the boat is hauled:

- □ Put 3 gallons of antifreeze through the raw water system. I do this by removing the hose from the raw water strainer, adding a 3 foot extension, and putting it in a bucket of antifreeze to starboard of the engine. Then start the engine and shut it off as soon as the antifreeze is used up. Some people remove the raw water impeller.
- ☐ Check the anode in the heat exchanger to see if it needs to be replaced.
- ☐ Pump the bilge dry using a shop vac or sponges.
- ☐ Remove the batteries or make sure they stay charged over the winter so they don't freeze. Check the fluid level if they aren't AGM. I used to run an extension cord in January and March and use the charger, but this year I am going to hook up a solar charger.
- ☐ Put a desiccant or mold prevention bag in the cabin. Most people remove their cushions
- ☐ If you use a boat cover, open the side windows to allow some ventilation
- ☐ Check your prop shaft anode and cutlass bearing.
- ☐ I change the fuel filters and the transmission fluid every 3 years. Some people do it annually. It can be part of the fall or spring checklist someone will speak up.

A couple of things I might add, each boat can be a bit different or have different options. Adding fuel stabilizer should be an option for most of us and if you have additional equipment like a macerator, air conditioning or refrigeration that use water don't forget to winterize those systems as well. Also a good time to lubricate and exercise those thru-hull fittings.

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

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mbierei@pirnie.com

#3, Chesapeake Bay wjhomes@zoominternet.net

#4, Puget Sound rodi2@msn.com

#5, Long Island Sound til 2000@optonline.net

#6, San Diego dmumby3@cox.net

#7, Lake Ontario crew@ceibaone.ca

#8, New Jersey Coast calypso36@comcast.net

m_joyce1664@yahoo.com #10, Gold Coast (Ventura & Channel Islands) jshapiro@kirkhill-ta.com

#9, San Francisco Bay

#12, Punta Gorda, Florida rodj2@msn.com

#14, Low Country (S. Carolina)
rodj2@msn.com

#15, Lake Texoma rodi2@msn.com

#16, Texas Coast rodj2@msn.com

#17, The Netherlands
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NEW FLEET -

Lake Huron / Cheboygan 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

#35 Southwest Florida

#14, Florida East Coast bob@s-i-inc.com

Other regional C30 Fleets

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.fleet10c30.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, II 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

(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 theareenwoods@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.

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** millerionathon@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.

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INTERNATIONAL ALL CATALINA ALLIANCE

Catalina Fleet 21 of Chicago

The Year Revisited

Our new year began with our annual Brown Bag Auction where we all reviewed our nautical artifacts and decided which ones no longer were needed. We packed them up, placed them in paper bags and adorned each bag with a "clew" on the contents. After gathering at the Corinthian Yacht Club for a catered dinner, these treasures were then presented to the audience to be purchased by bidding. Always an enthusiastic event. Upon opening the bags, some recipients were more pleased than others!

Our next event was another annual one, our Margarita Party was held on Memorial Day Saturday on the Lawn of Burnham Park Harbor. The weather cooperated and was dry with sunshine and a light breeze. Everyone was happy to socialize and offer stories of their winter travels. Several members announced giving up their boats for land cruising now that many are retired. Everyone was excited about the Louis Vuitton America Cup trials to be held on Lake Michigan for the first time ever in June. Followed by the Tall Ships Regatta 1 July.

Our outing chairman presented an interesting list of locations to sail to and gather for overnight stays. The first is to be at the newest Chicago Harbor at 31st Street for the 2018 Summer Solstice.

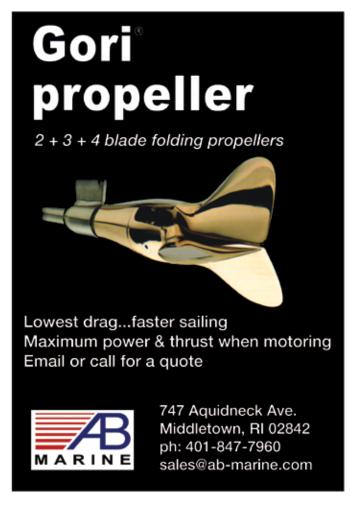


Catalina Fleet 21 New Officers



Catalina Fleet 21 Dinner





CATALINA 400/445 INTERNATIONAL ASSOCIATION

The Autumn of our Sailing Season

Read the story by Steve Cooper in the column section of this issue.

Thanks to CM440 Members. I would like to express my appreciation

to all of our CM440 owners. It has been a pleasure to serve as the CM440 Secretary/Treasurer since 2011. You are now in the very capable hands of John McElderry, who has graciously volunteered for that position in our fleet.

-Steve Cooper

CATALINA 42/425 NATIONAL ASSOCIATION

Coming Home To Catalina • Our New Catalina 425

By Jack Dunnigan



Sail on SILVER GIRL, Sail on by. Your time has come to shine. All you dreams are on their way.

It really all began at the 2009 Annapolis Boat Show.

We were looking to upgrade from our Catalina 34 with a view toward retirement. I had always wanted a Catalina 42, and the Catalina 445 was still a new design. I was looking at both, and all of a sudden I looked down at the C-445 cockpit and saw . . . Gerry Douglas, sitting alone. I must admit that I was a bit awestruck. But I went over, sat down, and discovered just how approachable and helpful Gerry could be. Over the next 45 minutes, I had private quality time with the chief designer of Catalina yachts. Gerry had owned at C34 too, and then a C42. We talked about the differences and trade-offs between the two, and his own experiences with his family. It was a memorable conversation that still brings a smile today.

For many reasons, however, we did not buy a new Catalina that year. We bought one of those flashy Euro-styled (and less expensive) sloops, and ended up sailing and cruising on it for six years. She served us well and supported many an adventure. Eventually though, I grew tired of her quirks. And once we sold our sticks-and-bricks house early last year, the need for something different was calling. I had seen the early literature for the planned Catalina 425, but at first was not impressed. Then, one evening we visited new friends on a C380 on a neighboring dock for sundowners, and as I sat in the salon it just felt . . . comfortable. As if I was home.

So I was being drawn back to Catalina, thought about the C425 again, and made a phone call to the local dealer, Dunbar Yachts in St. Simon's Island, Georgia. Most of the staff was at the Miami Boat Show. But Ron Barnett was there, and he forwarded the link to the now-famous You Tube video that was being shown in Miami of Gerry Douglas standing in and walking through a mock-up of the C-425, showing designs and drawings, and explaining many of the clever things he was working on. Lots of reallyclever things! Start with the standard self-tacking jib (no more shouts of "Hard alee!" followed by chaos!). The fold-out cockpit lounge seat. The very wide weather decks (so toe-friendly!). The cross sheeting system giving the option of controlling the main and jib sheets from the port helm. The disappearing companionway hatch door. The sheet and line storage compartment (no more endless spaghetti twists cluttering up the coach-roof underneath the dodger). The low coachroof for easy maneuvering on deck. The flush deck hatches. The narrow entry of the bow to the water. The gull wing hatch and portside flex cabin. The wideopen engine access. The three (!) 8-D batteries. The Catalina 5-series designs for engine maintenance access. The supporting structural grid between the

hull and the hull liner. And more! Gerry Douglas is usually not a very excitable guy, but you could tell that he was having fun with this! (P.S., you can still find the video on You Tube.)

Well, I was blown away. I knew from our C34 days how much clever thought Gerry Douglas and Catalina work into succeeding versions of their boat designs. But this was taking evolution to a whole new level. It was clear that Gerry relished the chance to design a completely new 42-footer from the ground up. This boat was going to be exciting, and bound to be a winner.

A few days later, Mike Bowie (the new owner of Dunbar Yachts) joined us in Daytona Beach and talked about the plans for the C425. He had just been to the Miami Boat Show with Catalina and Gerry Douglas, and was anxious to share what was happening. I had seen the bait, and was in the process of swallowing the hook; and Mike was making sure that it set well. Three days later, we were on our way to the Catalina factory in Largo, Florida, looking at C425 Hull #1 in progress. And we got the chance to sit down again with Gerry Douglas, and to talk about his new design. I was well-hooked. Now it was just for Mike Bowie to reel me in.

We found out that about a dozen C425's had already been ordered. We



Hull #7 arrives in Darien, GA, for initial commissioning

pretty quickly came to an agreement with Mike on the terms of an order. In almost no time, we were saying goodbye to our boat of six years so that it could be sold. Throughout the whole process Dunbar Yachts took good care of us, and built our confidence in their ability to deliver and commission our new S/V Silver Girl II.

Later that summer, after a 5-month camping sojourn around the country, we had the chance to return to Florida and sail on C425 Hull #1. What a pleasure to meet the indomitable Russ Hoadley, proud owner, who gave us a lot of encouragement and advice as we made our plans. (Russ and C425 Hull #1, S/V

Blue Heron, actually made it to Cuba in the spring of 2017 in the St. Pete Yacht Club Rally. And Gerry Douglas was part of the crew!)

Through the magic of Mike Bowie, Dunbar Yachts, and Catalina, we ended up being assigned Hull #7. In early October, we headed back to Florida again and saw our boat as it was being finished in the Catalina factory. She finally arrived in Georgia a few weeks later, and on November 14 we moved aboard S/V Silver Girl II.

Our daughter-in-law saw a picture and said that this looked like our last boat (one of those Euro designs). We told her that may be somewhat true



S/V Silver Girl II

from the outside -- the C425 is a bit of a departure for Catalina in terms of its lines. But down below it is all Catalina and familiar, just what we wanted. And when she joined us for a quick visit a few weeks ago, she agreed. We have sold our home of 30+ years, and this is now where we live most of the time. We are home.

CATALINA 36/375 INTERNATIONAL ASSOCIATION

Visit the C36/375IA Facebook page



C36/3/5 Commodore Laura Olsen

One of my favorite aspects of sailing is the magic of going a bit slower and totally escaping the fast pace I face each week at work. That makes me not a huge fan of being on my phone any more than necessary.

As an official senior member of humanity (chrono-

logically speaking only, in my mind I'm still much younger!), I, like many others, have struggled with the current social media pace and postings that have become a norm with electronic device usage in today's world.

However, I must make a full confession that I am (wait for it... generational vocabulary shift here) super stoked about our C36/375IA Facebook page! You must visit!

The family of sailors showing up is very special indeed. They are posting their stories, photos, videos, successful projects, and more.

In the first month since the FB group was initiated, well over 400 people joined. They have been active and enthusiastic about all things Catalina, with an understandable bent for our lovely 36s.

Past and present concerns regarding the impact of how all our available media interplay with each other remain. It won't get resolved here and I for one am not even going there. Facebook is not for everyone. That's ok. However, I see tremendous benefits with our FB launch thus far: camaraderie, sharing, family, and best of all love of our boats and each other as fellow sailors.

I am very encouraged that the fresh participation can lead to good things. I am particularly pleased to see many FB participants also joining our Association as full members. The benefits to members are fantastic and it helps keep our treasured *Mainsheet* viable as well.

Perhaps we really can "all just get along."

Special thanks to Steven Jones for jump starting the FB page and keeping it humming, and Nick Tonkin for amazing website efforts at our Association website. **–Laura Olsen**, safetsuper@gmail.com

CATALINA 350 INTERNATIONAL ASSOCIATION

Please Volunteer



C350 Association Commodore Neville Edenborough

Pete Travers, Vice Commodore, has announced he is retiring from the C350IA December 31. He joined the dark side by selling his beautiful C350 and buying a power boat! Pete has been a great Vice Commodore and we will

miss him terribly. So we need a new Vice Commodore. The Vice Commodore handles membership. This doesn't take too much time as we have a membership service which does most of the work. This person would step in if there is a problem (rarely). The Vice Commodore

also participates in the Bridge meetings by telephone twice per year.

Please volunteer for this position so that we can continue to offer the fine service the members have come to expect. **-Neville Edenborough**, Commodore, C350IA

Please volunteer for this position so that we can continue to offer the fine service the members have come to expect.

CATALINA 34/355 INTERNATIONAL ASSOCIATION

Secretary's Report



C34/355 Association Secretary Stu Jackson

C34IA Membership is at 500, down some from what it was at the end of last year. This 500 includes 31 C355s.

After 20 years and 2500 engine hours, I "finally" got around to doing the "oil breather hose into the engine air intake" trick over the

course of this past few weeks. "Few weeks?" you ask. We are living on "island time" here.

First I had to source and locate the elbow. The marine stores didn't have one. My go-to marine store is now Duncan Auto. Then I had to drill the hole in the top of the can. I bought a new drill bit at the local Rona Hardware store, who almost always doesn't have what it is we need. All the similar drill bits were \$22, but I saw one rack that had the same size for only \$6. So, I asked. The helpful salesman accompanied me to the checkout and told them to only charge me \$6 "because the tags in the display were wrong."

When I drilled the hole it was too small even though the salesperson had

checked it against the elbow I had brought with me. I finally succumbed to taking the can apart and using my father-in-law's huge drill press, which I'd been avoiding, just like the table saw in my saloon table mod (see Tech Notes). The enlarged hole was the right size, drilled from one of his huge drill bits. I screwed the elbow in and then rebuilt the can. That was tricky with the small long bolts and tiny nylock nuts on the bottom. I brought the can back to the boat, measured and cut the ½" hose, and now my engine looks just like Noah's picture on the forum (Oil Breather Hose). I also removed the old peanut butter jar I'd been using to capture the old breather output. Yuck! Can't wait for a little warmth to be able to clean up the engine compartment.

I explained all of this to a sailing friend and told him of my "winter boat chore list." He wrote back suggesting instead of using winter to do boat chores that I consider "skiing... or heading south to play golf." I guess he forgot I'd broken my leg skiing in 2009. I'd also tried golf, but couldn't reconcile golf and sailing. We once went south to Ensenada for a winter break; it was warmer and sunnier in San Francisco the entire week we were there.

Now that we're facing our second winter here, we've become "veterans of the frozen tundra!" After last year's incessant rain and then snow it's become almost balmy here, often reaching all of 8C during the short afternoons. I've got the engine compartment to clean, trace down the absence of power to the autopilot, and check why the depth sounder is wonky. I never knew how the power was run for the autopilot, most likely tapped off the cockpit panel, so I'll now find out. The depth sounder could be the unit itself or the BNC cable from the transducer under the V berth; I'd had the unit repaired years ago by DMI Maine. I could see utilizing an entire winter to get this stuff done. But heck, any day on the boat...

We also applied for and received our Canadian boat license. I've purchased the new numbers for our bow from a local sign shop, and got a new Canadian flag for our flagstaff and an American courtesy flag for our starboard spreader as gifts. Getting the old numbers off is part of the list.

Hope you enjoyed your winter and are getting ready for a new sailing season. And many thanks from all of us to you for supporting the C34IA.

CATALINA 320 INTERNATIONAL ASSOCIATION

Commodore Article



C320 Commodore David Allred

By the time you get this, we on the Chesapeake will be deep into our winter layover. Like many (or some) of you, I have spent some of those dark months on construction projects, Now, your construction projects probably have been designed

to improve your boat in some manner. So, too, have a couple of mine. But the larger projects have consisted of trying to mentally construct new explanations for having similar sized boats pass me

on the bay. In one sense, I am not a racer. I don't compete in formal races with a start and finish line. On the other hand, I am always "racing" any other boat headed in the same general direction while I am sailing. As my wife says, "If there is another boat within view, my husband is racing." Therein lies the need for new construction projects. I need to rationalize why I am not always winning these races.

I already have a fair stock of reasons. If the other boat is far enough away that I cannot make out for certain its size, it is always just a larger boat and, therefore, faster. No problem. If the other boat is close enough to see that it is the

same size (or smaller) and it is passing me, my first go-to is that the other boat probably has a bigger foresail than my 135 genoa. If that fails, I can usually chalk up the other boat's faster speed to newer sails that are in vastly better shape than our old ones. Those rationales work fine at a distance.

When the competing boat gets close enough that I can see that its sails are so similar to mine that those excuses—strike that—those reasons, won't work, I go for those factors I cannot see. First, the other boat must have a folding or feathering prop that makes my fixed three blade noticeably slower. To that, I can add, especially toward the end of

summer, that the other captain must have recently had his bottom cleaned whereas mine is dragging a season's worth of growth. Finally, I imagine the other boat to have a fin keel even though I know that most boats on the shallow Chesapeake have a wing keel like mine.

When all these possible explanations for another boat passing me fail, as they often do, I have to admit that the other skipper is simply a better, more skilled sailor than I am. As my wife says, "That doesn't mean he or she is a better person than you are." (Sometimes, she says, "That doesn't necessarily mean he or she

As my wife says, "If there is another boat within view, my husband is racing." Therein lies the need for new construction projects. I need to rationalize why I am not always winning these races. I still have a month or two before the boat goes back in the water and a new racing season begins.

is a better person than you are.") And, that may be true. However, I sure would like to construct some new reasons to add to my list, if only to impress my wife with my creativity.

Now back to those mental construction projects. I still have a month or two before the boat goes back in the water and a new racing season begins.

CATALINA 310/315 INTERNATIONAL ASSOCIATION

Greetings Sailors



C310 Commodore Alan Clark

It is March and we are excited about the upcoming sailing season; we are getting our Spring to Do list out to get our *Anam Cara* ready for our Summer Adventures. We will test our life vests, make sure our BOATUS towing is in place-not that

we plan on it BUT just in case, get the charts ready and wish list for places to visit on a "maybe" list and always include one or two destinations that we have never been to before. We like to visit at least one new destination a year.

We live in the North and sail on the Great Lakes, so we currently are planning to get our boat Unshrink wrapped, thinking about waxing-cleaning and other project updates. We got a lot of ideas from other 310 owners this winter so there is always something to do when we get that weather day and not go sailing.

It has been interesting following the other 310 owners that sail year-round and their updates, but now it is our turn! This is our 5th sailing season with our boat and we love her more every year. We had our Catalina 25 for 10 years and never imagined moving up until we saw the 310 and now we are still learning about her and her systems,

and love sailing her. I want to thank your flag staff for their work for our association, Bob James, our editor, Curt Sawyer, our Treasurer and Jesse Krawiec our technical Guru for their continued support and help.

Please continue to support those that support us including Catalina Yachts that has great customer service.

Have a Fun, safe sailing Season in 2018 and remember to share your adventures with us and the 310 IA forum.

And finally, don't forget the fire extinguisher recall by Kidde. I had three that were replaced free of charge. Find details on their website.

The Beginning of a New Sailing Season



C310 Association Editor Bob James

In balance, the 2017 sailing season was a good one. I successfully stayed far away from 3 ft shoals and boated through mid-October. The to do list is in process for this next season and includes replacing the sump pump,

tweaking the bilge pump performance and another year's promise to solve the mystery of my erratic instrument panel. I did have one scare this past season when the oil pressure signal started to beep as the result of the demise of the oil pressure sensor and a leak of a little over a quart of oil – messy but not catastrophic.

Our Technical Editor Jesse and Admiral Stacey are still living their dream as thy have settled in the US Virgin Islands for the time being. As you can imagine, they had some "very interesting" experiences during the September hurricanes. You can learn all about it and follow their blog at https:// svsmitty.wordpress.com Please send me your stories from the 2017 season and your plans for next year. Send Jesse any technical challenges and improvements you have made to your boat.

As you read this, launch time for 2018 will be just around the corner. See you on the water!

C25/250 & CAPRI 25 INTERNATIONAL ASSOCIATION

The Boat Whisperer

By Al Corson • 1982 Catalina 25, SR-SK • Pualani Nui • Dale City, VA

Last Issue:

The sun's rays reflected across the marina waters' surface, scattering and twinkling on the wavelets like tiny jewels, as a slim and graceful 25-foot Catalina sloop gently tugged at her mooring lines, feeling snug and secure in her slip.

"Pu, sweetie-boat, I promise we will get some quality sailing time in this fall, as soon as the heat breaks. You hang in there, and stay afloat, hear?"

"Aye-aye, Skipper! Will do. Aloha and a hui hu, Skipper. Come back soon."

Echoes of *Pualani's* soft voice slowly died off in his head as Ole made his way slowly back up the marina dock ramp, stopped at his big GMC truck 'Tater's driverside door, and looked back.

"Soon, God willin' and the crick don't rise..."



YANK, YANK, SILENCE

Ole and No. 1 Son stood on the finger dock of Pualani Nui's marina slip, looking to the South and eyeing the looming clouds building on the horizon.

"I think we have a few hours before the heavens open, son"; Ole remarked, as he stepped aboard Pualani Nui, his Catalina 25.

No. 1 Son nodded in agreement, but brought up the weather app on his cell phone just in case.

"Aloha E, Skipper! Are we going sailing today?" In his head, Ole heard the soft, liquid voice of his boat speak as he bent down to unlock the companionway hatch.

"Aye, sweetie-boat, that we are, and look who I brought with me. First Mate today, my No. 1 Son." Ole chuckled, as his son stepped aboard, lithe as a young panther.

"Oooh, he's so handsome, Skipper! Will he be, um, handing my lines today?" Ole thought he heard a shy excitement in Pualani's voice, and figured if a boat could blush, she was doing it in spades.

Ole replied, with a touch of sternness in his voice: "Yes, Pu, he will, and I want you on your best behavior today. This is only his second sail as a crewman, so be patient if he grabs the wrong line here and there."

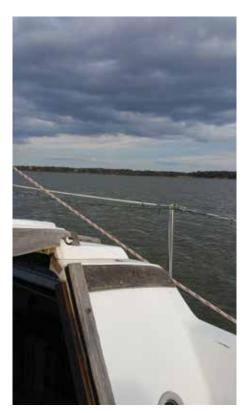
"Aye-aye, Skipper! This is so exciting!" Pualani's voice almost squeaked, and Ole thought he felt the deck under his feet shiver.

"Son, stow the hatch boards below, would you, and I'll rig the new outboard." Ole gestured to his son, as he went aft to lower the recently-purchased Nissan, 5HP, four-stroke on its stern bracket.

"Ok Pu, all set, fuel line attached, choke on, Deadman switch clamp on, here we go!" Ole spoke to his boat as he reached down, and took a firm grip on the starter rope.

"Umph!" Ole grunted, as he yanked once, twice, and the little Nissan four-stroke sputtered to life, its idle smoothing out as Ole eased the choke in, and adjusted the throttle.

"Alright, son! Standby to cast off! Cast off forward ...". Ole's son jumped



to the dock, hurried forward, and released the two dock lines, then the forward spring line.

"All free forward, Dad" he shouted.

"Good! Free the stern spring line, free the stern dock line, but don't release it until I shift into reverse. Make sure you have your boat hook handy." Ole replied, leaning back, and grabbing the shift lever on the outboard.

"Let go all!" Ole shouted, and shifted the little Nissan into reverse. Ole's son threw the stern dock line onto the finger dock, grabbed his boathook, and went forward to fend off, as Pualani slowly backed out of her slip, turning gracefully as Ole put her rudder hard over.

"Ok, sweetie-boat, here we go", Ole muttered, as he leaned back again, shifted the outboard forward, centered the rudder, and increased the throttle slightly.

"Aye-aye, Skipper!" Pualani said with excitement in her voice. "I can feel the wind in my rigging already! Let's go!" Ole, No. 1 Son, and Pualani glided gently out of the marina and into the river proper, Pu's bow gently rising and falling now to the slight chop kicked up by the steady southerly wind.

For the next two hours, the three sailed blissfully back and forth across the river, with Ole teaching his son the various points of sail, using only the main. Finally, lessons learned for the

day, it was time to bow to the incoming foul weather, and return to the marina.

"Ok son, lower the main, and I'll rig the outboard." Ole sighed, not really wanting to return, but the storm clouds were building to the South, and becoming increasingly ominous. Right, Dad, er, aye-aye", Ole's son chuckled, as he jumped up on the main deck, and began to lower the mainsail.

Ole lowered the outboard into the water, rigged the Deadman clamp, squeezed the priming bulb a few times, and then pulled vigorously on the starter rope.

Nothing.

Ole yanked again, once, twice, three times. Still nothing.

Ole muttered to Pualani, "Drat! Stinking outboard! It figures, incoming foul weather, south wind to blow us right into the dock, and no power! We"ll have to go in under sail, Pu. Get ready!" "Sail?" Pualani yelped. "Skipper, I have never sailed into my slip! Are you nuts?!! I - I," She spluttered, and Ole cut her off.

"Hush, lass! It's been a few years since I last did this, but it is possible, even with the main, since we don't have time to lower it and rig the jib. We can do this, we have to do this." Ole set his jaw, eyeing the black clouds still building to the south, with an occasional streak of lightning dancing between the clouds.

Ole shouted to his son, "Son, belay lowering the main. We have an opportunity to excel here. The outboard won't start. We're going in with the mainsail. Go forward with your boathook, and standby. We'll go in nice and slow, with the keel partially raised, to keep from slipping, but clear the marina bottom on the way in. When we turn into the slip, jump off, run forward, and catch the boat before she hits. You're strong enough, you can do it! Here we go!" "Got it Dad!" Ole's son sprang forward, his boathook at the ready, as Ole guided Pualani through the marina entrance, and up the line of boats to her slip.

"Dammit, Pu," Ole growled, "we're going to speed up when we turn! The wind will be at our backs! Brace yourself, lass!"

"Oooo, Skipper! I'm scared! Somebody, catch meeee!!!" Pualani screamed, as Ole's son leaped to the dock, dashed forward, and grabbed Pualani's rapidly approaching bow pulpit.

Number One Son: "AAARRRGH!!!!"



The dock: BAM!

"Ouch - my nose! Skipper, my nose!" Pualani whimpered.

"Son, make fast, fore and aft. I'll lower the main." Ole moved forward as fast as he was able, and lowered the main, went back aft, stood up on the cockpit seats, reached up and fastened the end of the boom to the aft stay pigtail, hauled the mainsheet down tight, then let out a huge sigh of relief.

"Well done, son! We made it! Any damage to the bow?"

Ole's son bent down, and examined Pualani's graceful bow. "None, Dad! Only a small divot out of the dock. The boat's ok."

Ole smiled, then spoke softly to his boat, "There, see, only a little bump. You're fine, Pu. No need to cry."

Pualani sniffed, and Ole could hear a small smile start up in her voice, "O..o.. ok, Skipper." Then she gushed, "Oooh, Skipper! Your son is so strong!"

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CATALINA 22 NATIONAL ASSOCIATION

Catalina 22 Racing Season Kick-off

In just a little over one week, the Catalina 22 racing season kicks-off with the Catalina 22 Midwinters regatta to be held at Kelly Park on Merritt Island, Florida the weekend of February 24-25. Hitch up your Catalina 22, grab your best crew, leave



C22 Association Editor Rich Fox

the snow shovels behind, and head to the east coast of Florida for a fun racing weekend!

Later in the year, the Catalina 22 National Championship Regatta will be held on Scotts Flat Lake near Nevada City, California the week of June 2-7. The event will be hosted by Catalina 22 Fleet 4, Fleet 54 and the Gold Country Yacht Club. C22NSA Vice Commodore Doug Hare is organizing the event with help from the two fleets and the GCYC. For those who are keeping track, this will be

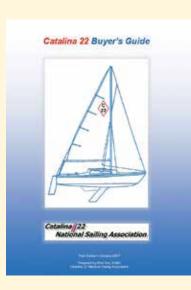
the 46th year that the C22NSA has held a Catalina 22 National Championship Regatta.

If racing isn't your thing, the infamous week-long Northern Gulf Coast Cruise will set sail along Florida's Emerald Coast in mid-May. This event was started back in 1998 as the Full Moon Cruise by four Catalina 22 sailors. Today, it remains one of the most popular sailing events for Catalina 22 sailors. Look for more details coming soon on the Catalina 22 National Sailing Association's website.

Also returning in 2018 is the Catalina 22 Great Lakes Cruise that will set sail on the cool and clear waters of Grand Traverse Bay, Michigan the week of August 12-18. The event is organized by Mike Bracket of Catalina 22 Fleet 130 near Detroit, Michigan. Details are available on the Association's website.

C22 Buyer's Guide

If you have a friend or relative who may be looking to purchase a used Catalina 22, check out the new Catalina 22 Buyer's Guide publication on the Association's website. The Buyer's Guide will



help educate any potential buyer on what to look for, and what to avoid, when preparing to purchase a used Catalina 22 sailboat. There are also reviews on all four models of Catalina 22 sailboats built during the past 49 years, including the Catalina 22 Sport.

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