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MAINSHEET

SPRING 2020

Volume 38 • Number 1

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16 SAILING TO CUBA ON OUR C30
We'd been planning to sail to Cuba for a few years, but something always kept on getting in the way: motor rebuild, time, boat projects, funding, etc. This is probably familiar to most readers. This time we were going to do it!

TECH NOTES:

A Mainsheet exclusive! Technical information for your boat that has been approved by Catalina Yachts for accuracy.

ASSOCIATION NEWS:

42 Stories and news that's specific to your Catalina sailboat.



FROM THE FACTORY:

The Catalina 545 is the ultimate in the 5 Series and incorporates all the safety, quality, and convenience features that are a Catalina hallmark, and have made the 5 Series successful.

EDITORIAL:

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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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Mainsheet magazine is also available as a password-protected digital download in PDF format so you can print specific pages for archiving in your boat's 3-ring binder or for easy reading on your favorite digital devices. Download this issue today!





ABOUT OUR COVER:

The new 545 is being recognized world wide for its unique style, comfort, interior space and overall design.

CRUISING WORLD

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EDITOR'S BARQUE

Is it Sailing Season yet?



With all the crazy weather we have had in the South, and are still having, who knows what season is really here.
Obviously we don't get

the worst of it, but what we do get is far from normal. A new normal? All I know is I want to be back on the water and enjoying sailing my boat.

Speaking of getting back on a boat, we have a good adventure in this issue of a cruise to Cuba. Having been there myself in 1953 when stationed with the Navy in Guantanamo Bay, the article brought back some fond memories. The Cuban people are still as I have remembered them some 70 plus years ago. Change in Cuba is slow. Thanks, Jamie Hart, for a nice remembrance.

I know for certain that many of you will be making your own adventures in this new year, so please keep those exciting stories and photos coming our way. We like to have around 1500 words and several photos to make a spread or even three pages. The Tech section this issue was a little longer than usual, but it is loaded with some really good advice, and answers to things you might need or want to know.

As we do start a new decade, I want to pass along our thanks to you, our editors and readers, who have made so many outstanding contributions to *Mainsheet* over the years. Keep up the excellent work. *Mainsheet* is truly written by and for Catalina owners everywhere.

-Jim Holder



Join an Association or Renew Your Membership

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

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

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

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The Catalina 545

By Gerry Douglas Designer, Chief Engineer, VP, Catalina Yacht

The Catalina 545 is the ultimate in the 5 Series and incorporates all the safety, quality, and convenience features that are a Catalina hallmark, and have made the 5 Series successful.

The Catalina 545 owner will likely be an experienced couple who enjoy cruising with family and friends and require a boat with greater capacity and range for extended passages and cruising range.

Recognizing that experience at sea heightens an appreciation of safety aboard is a primary design consideration of the 545. This is demonstrated by the watertight bulkhead with the impact absorbing "Strike Zone" forward; a watertight bulkhead aft with a rudder post containment structure; 28.5" stations and rails, and wide weather decks with tall bulwarks. The solid lead keel absorbs impact and protects the hull structure from severe damage.

Accommodations reflect the needs of experienced owners who desire comfortable guest quarters, but also want an owner's cabin that is more than a sleeping cabin, and will be a comfortable, private retreat while others party on in the main cabin.

Special attention has been paid to details that make life aboard more pleasant, such as the dumb waiter connecting the galley to the cockpit, and a Starboard aft cabin that easily converts a double berth to singles.

All systems aboard are engineered for reliability, accessibility, and easy maintenance while providing power for all the systems required for comfort aboard.

The primary dc functions are 24 v. There is 3 zone a.c and heat, and provision for the requisite wine cooler, ice maker, freezer convection oven and concealed 48" T.V., etc., all the things that seem to be necessary for modern life aboard.

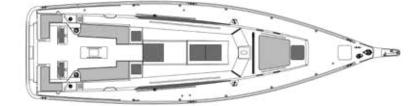
The hull is solid fiberglass laminate below the waterline and balsa cored above the waterline.

The deck is cored with Carbon Core honeycomb, the bulkheads are honeycomb core with teak veneer facings and ring framed to the hull. There is a one-piece grid supporting the mast, tanks, engine bed and keel stricture.

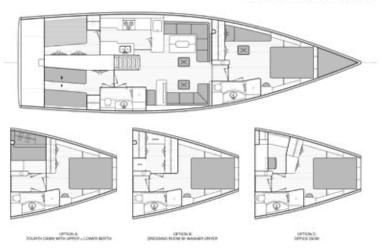
The Catalina 545 will be their ultimate cruising boat for many owners, and with that in mind, it has been designed and built to provide many generations of service.



Catalina Yachts 545



Catalina | Yachts 545 OPTIONAL ARRANGEMENTS





Photos of the Catalina 545 by Billy Black. Billy has 40 years of experience making those magic moments happen all around the world from Newport to New Zealand. He has the patience, energy, and experience to get to the heart of your message in stills and video. www.BillyBlack.com.















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From the Bridge:

Christmas in LaPaz

By Bill Martinelli • Commodore Catalina 470 National Association

YEEK! Got up this morning at 6:00 am and the instrument thingy that goes up and down and shows the temperature showed 60 degrees F. I think the "F" stands for fugging cold here in La Paz, Baja Sur, Mexico. On the bright side of things it is predicted to be 82 degrees F later today. In this case the "F" I assume stands for fugging Fantastic.

We returned to the dock a week ago after two months out on anchor in different parts of the Sea of Cortez. When we are cruising for extended periods of time like this I repair things that must be done and make up a list of other things to do later when we're back in a marina.

Well, it only took three days to complete two items on the list. It never fails to amaze me how some items on the list can be completed and checked off in a matter of minutes and other items take days. Maybe I should write what are the easy jobs as one line sentences and more involved jobs as 500 word essays. The problem with what went on in the last three days following the to-do-list format I just laid out, I'd have to have written something the length of War and Peace to fit the format.

Christmas is just 10 days away and La Paz is geared up for it with the Malecon (the main street along the waterfront) festooned with light and decorations. The



Cruising community in Baja Mexico supporting local kids. *Photos by Julie Olson.*

SPRING 2020

(continued from previous page)

local yacht club, Club Cruceros, has organized a lighted boat parade for this evening to accompany other entertainment and fireworks sponsored by the city.

On the morning VHF radio nets this month there are announcements for pot luck dinners and parties. Also people are reminded to get their donations to different local charities in by such and such date. Besides being a vibrant city of Pacenos, La Paz also has a very active ex-pat community. One of those causes supported by both locals and gringos, that the Admiral of Voyager supports every year, is for one of the local Rotary Club chapters.

Rotarians collect letters to Santa from the kids out at country boarding schools (albergues) up towards the mountains. (Some of the remote Baja ranching and fishing communities aren't large enough to support their own schools.) The students write letters

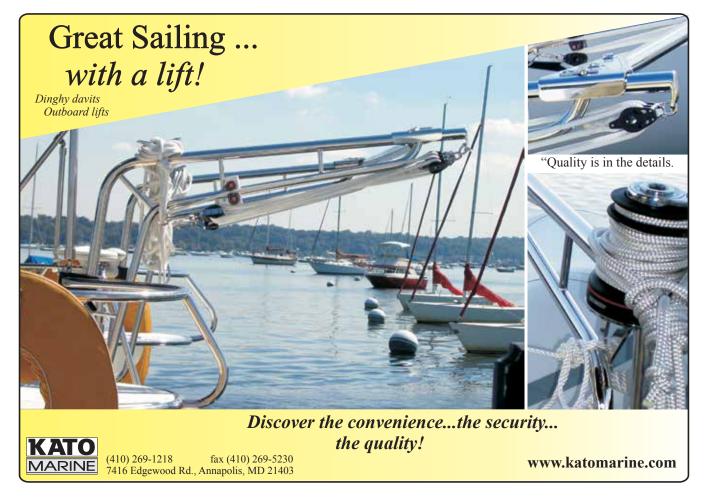
stating their age, grade, boy or girl, what they wish for, (typically practical items like shoes and clothing), and sizes. Donors select a letter, go shopping, wrap the gifts and hand them to Rotary volunteers who deliver them to the school.

A few years ago, Julie out went to the albergue at La Soledad one year and took photos of all the students receiving their gifts so that donors could see their happy faces. Cruising couple friends (and former Rotarians in the U.S.) were on hand serving as Mr. and Mrs. Claus. Getting there took something like four hours (about 250 miles round trip) each way in vehicle with a whole lot of ground clearance and the ability to wade through water and rough terrain.

Julie does the shopping for the gift. I really do not have the mentality for wandering through a clothing store girls' department trying to find something of the right size, age appropriate, and

attractive. Something happened recently, that brings up a potential guy/girl thing (apologies and respect to those women mariners who are mechanically inclined). We met a lady friend of ours for lunch and Julie gave her a new bathing suit top that she bought the wrong size. The friend pulled the balled up piece of black fabric out of the bag it was in and said "OOH, that's CUTE!" Amazing how some minds can ascertain such. To me it was a balled up piece of something. If the gift was instead a set of screwdrivers or wrenches, I could understand the enthusiasm. I would describe them as neat, cool, great, wow those will come in handy. This is why it is best I leave clothes shopping to my better half.

OK, I have delayed enough back to the one-line do to list and see if I can find an easy one that won't take a lot of time. Yeah, good luck with that.





Sailings's Must-do List:

An Overnight Passage From Charleston to St. Augustine

By Lavonne Luquis Shelton • CM440 Hull #14

Our first double-handed overnight passage is a wrap. We hoisted anchor in Charleston, South Carolina, around 7 am on December 5, 2019, and grabbed our reserved mooring ball in St. Augustine, Florida, shortly after 2 pm the next day.

We've done a multi-night offshore passage with three onboard our CM440, Vinyasa, which made splitting the night watches easier as each of us had more time to rest.

This time, it was just Allan and me.

It was an opportunity to experience an array of deep emotions: joy, elation, awe, trepidation, exhaustion, and gratitude, lots of gratitude.

On passage, we take turns napping or sleeping, and we avoid reading while on watch. That practice delivered many quiet or

shared hours for enjoying the antics of too many dolphins to count along our route; marveling at a large sea turtle floating on the seas' calm surface southeast of Jacksonville; and admiring pelicans, terns, gulls, egrets, and other birds as they soared, glided, or dived into the sea.

Time seemed to have a different texture while appreciating a gorgeous sunset that started when the sun dropped behind the horizon and increased in breathtaking intensity for the next 40 minutes...quite the splendid show.

The first four hours we each stood watch in the dark flew by. For me, it was a meditative state of tuning in to the boat, our route, and the surroundings. I was fully absorbed in noticing a myriad nuances, such as the sounds of the boat or the flicker of light on the many shades of green, blue, or dark gray water.

And the joy of frolicking dolphins, by day and by night! Who knew you can see the glow of their skin beneath the

surface of the water on a moonlit night? Or hear a high-pitched pssssszzt as their dorsal fins break the surface of the water with a luminescent spray a few feet away?

My main moments of trepidation were determining distances to lit markers on my second watch, from 2 to 6 am. I find it challenging in the dark, and it was disconcerting to notice how a slight change of our course made a stationary object suddenly appear



The chartplotter lighting up as daylight waned and night crept near.

much closer than it at first seemed. It renewed my empathy for the sailboat that ran into a structure on the Chesapeake Bay when we were anchored nearby last month.



Dolphins joined us during both daylight and dark hours during our passage.



A sunset view of the south mooring field at St. Augustine, Florida.

Time seemed to have a different texture while appreciating a gorgeous sunset that started when the sun dropped behind the horizon and increased in breathtaking intensity for the next 40 minutes.

Our joint moment of trepidation was approaching St. Augustine inlet. We were both quite tired, and the inlet has a reputation for being tricky. Fortunately, the sea state was calm, and we squeaked through the inlet just in time to make it through an opening of the Bridge of Lions—which occurs every 30 minutes—to grab our reserved mooring ball.

We were cheerfully greeted over VHF radio by friends moored aboard SV Marguerite who informed us that we were about to ground ourselves on a shoal pulling into the mooring field. A tour boat, the Victory III chimed in over VHF at the same time, so our grounding was averted, which we greatly appreciated! Why can't the St. Augustine Municipal Marina put a shoaling marker in a spot that apparently trips up many a sailor? Or perhaps post an easy-to-find map on their website with the mooring ball locations to help newcomers avoid common confusion? Go figure that I stumbled across the helpful map after we were tied up, while looking for something else on their website.

Oh, well...not every marina is as wonderful as Herrington Harbour North in Tracys Landing, Maryland, where we lived aboard before embarking on our open-ended cruising adventure a month ago, or every municipal mooring field's info as readily available as that of Annapolis, Maryland.

So, what is in St. Augustine's favor? Well, the municipal marina's reservations system is pretty sweet, their staff are helpful, and what little we've yet seen of the town, seems pretty amazing. We count our blessings and look forward to catching up with cruising friends and exploring St. Augustine thoroughly over the next few days!

SV Vinyasa is a 2006 CM440, hull #14. Lavonne and Allan Shelton set off cruising in 2019. They intend to explore The Bahamas this winter and transit the Panama Canal in the spring of 2020. Follow their voyage at: http://sv-vinyasa.com.



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Lessons Learned:

The Story Behind Our First Sailboat

By Tony Cambria • C350 IA • Tehani

Virginia and I began the search for our first ever sailboat two years ago. Living in St. Petersburg, Florida we have a huge selection of used boats to choose from. After a lot of research, reviews, and firsthand accounts from sailboat owners, we decided we were going to buy a Catalina brand...nothing else would do.

Our first visit was to a local boat broker here in Saint Petersburg. He showed us a few of the various Catalinas he had for sale and told us about Catalina's great reputation and the quality of the boats they build. As we toured the various boats, the broker told us a fascinating story about a chaplain he knew who bought a Catalina 350 and, after a few years, sold it. Then a few years later, the chaplain bought the boat back from the person he sold it to! If a Catalina had the trust of a priest to buy it not once, but twice...who were we to question Catalinas! Now doubly determined, we pressed on to find our perfect Catalina.

Fast forward two long years of searching (and stockpiling money for a down payment). It's now October 2019, and as luck or fate would have it, the stars finally aligned (ahem...finances and finding a meticulously kept boat). We had found a 2004 Catalina 350 named Tehani... we fell in love instantly. She had everything we wanted and she was beautiful.

While the survey was being conducted, I had the opportunity to go through a lot of the maintenance records the owner left on board and something I found made me know that Tehani was going to be our boat. You see, unbeknownst to us until this very moment, Tehani is THE Catalina 350 the broker from two years ago told us about...the very same one the chaplain bought twice. Some may call it fate. I'll just call it divine intervention. She's a beautiful boat, with a beautiful name, and a wonderful story behind her. **-Tony Cambria**, S/V Tehani



14 CATALINA MAINSHEET

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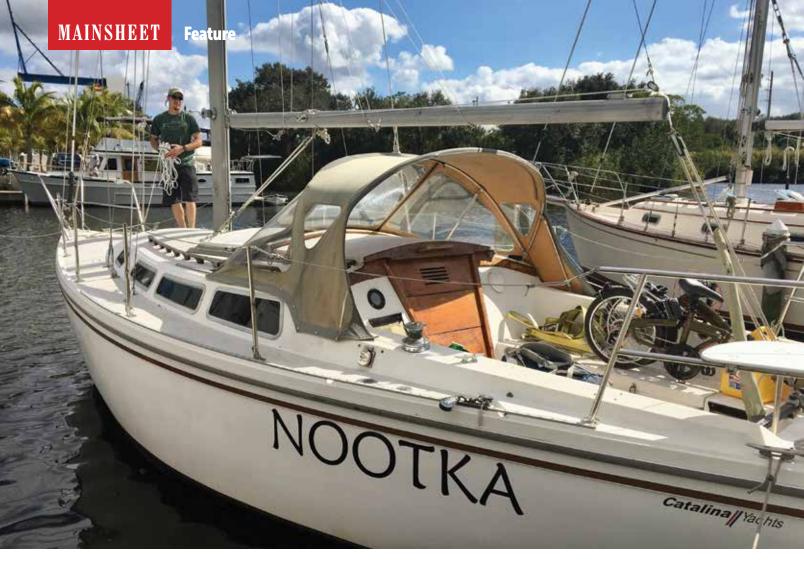


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SAILING TO CUBA ON OUR CATALINA 30

We'd been planning to sail to Cuba for a few years, but something always kept on getting in the way: motor rebuild, time, boat projects, funding, etc. This is probably familiar to most readers. This time we were going to do it! The trip to Cuba cannot be told without first telling the story of Nootka, our beloved 1981 Catalina 30 (#1988) and how we took her from Washington state to Cuba.

BY JAMIE HART

Getting our sea legs

Our first boat was a 1980 Catalina 27 we bought in the winter of 2010. We only had about a day's worth of experience under our belt when we moved aboard Knot a Clew to sail around Florida. We didn't give the boat that name, it was entirely coincidental and fitting! During that time, we sailed from Clearwater to Merritt Island, around the Florida mainland. This was a 450NM long way around, and took us over two and a half months. We got our sea legs by island hoping across some big water (for us), including Key West to the Dry Tortugas (50NM of completely open ocean) and Key

Largo to Bimini (50NM of completely open ocean). This was an amazing learning experience and we began to understand what it meant to be sailors. We loved it! We ended up living in Port Angeles, Washington a few years later and wanted to live aboard again and further our sailing skills. We upgraded to a lovely Catalina 30: Nootka. We sailed her all around the Seattle area, which is very picturesque but also filled with islands, straights and navigational challenges (compared to our experience in FL). Two years later, in 2015, we shifted again to Alaska. In order to keep up with sailing, we decided to keep Nootka in warmer waters, where

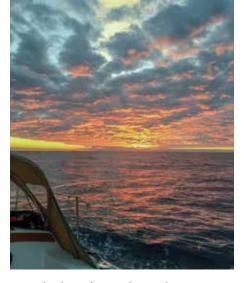
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we could visit as snow birds in the winter and enjoy the warm sailing we had enjoyed a few years back with Knot a Clew. We trucked her all the way down to New Orleans and we made the roughly 750NM trip south towards Florida, again. In the years after that, we spent several winters sailing around Florida, especially near Key West, our favorite winter playground, always taking her out of water for the summer. After a motor rebuild, a new mainsail, spruced up bright work, and several other retrofits, she was in prime form and ready for sailing across the Straits of Florida.

Getting ready

We wanted to go to Cuba because it was a true historical event: to have access to a country that had been closed off to official U.S. interactions for so long. We also felt that sailing to the country was both traditional and challenging. We were also unsure about how long this new access would last and wanted to make the trip sooner than later. As it turns out, we were right and fortunate. The U.S. has now banned private and recreational boat access to Cuba. This is unfortunate because it's a trip well worth taking, as this article will illustrate! There are so many cultural aspects to take advantage of and enjoy.

We started the planning process early on, because the permits to get back into the U.S. required a long lead time. This was the fall of 2018. We submitted the paperwork and spent our leisure time in Key West reading up on Cuba: what we should know for sailing into Cuba, where to stay, how Customs works, the various document requirements while there, estimating costs, the food situation, and other tips and tricks. One particularly useful resource was the Facebook group: Cuba, Land and Sea ran by Addison Chan, who also wrote Waterway Guide: Cuba. The purpose for me visiting Cuba was to research National Parks. Working in a National Park in the U.S., I personally wondered how Cuba managed their sites, visitors, and facilities, especially with regards to other non-U.S. visitors. Tourism is a huge part of the Cuban culture and has been promoted by the government for many years as a way to move the country into the 21st Century.



I was looking forward to sightseeing and learning about their challenges and successes in managing tourism.

We received our official permit approval several weeks before the scheduled departure. We started to check off items on our list, including big grocery runs, cleaning the boat, charging up all our batteries, filling water, stashing money, getting copies of our passports, and downloading anything we might need while underway or once we got there.

We're going to Cuba!

We left before sunrise on December 18. The wind was calm and the sunrise was welcoming. We motor-sailed for almost the entire 30 hour trip, the wind wasn't great but we enjoyed a beautiful sunset. We happened to approach mainland Cuba at nighttime-not ideal!!! There is a massive escarpment off the north shore of Cuba, meaning that it's 6,000ft+ deep at anything more than 10NM from the coast and 3000ft+ deep less than 5 NM from the entrance of the harbor. There are obviously no navigational aids possible at this depth. Comparatively to the US, the coast is unlit. Individual navigational markers are about 10NM apart at best, and your GPS becomes your best trusted friend. In addition, we could see rows of confusing



faint green lights (like cans) located a few miles offshore that weren't on the chart. Our best guess was that they were huge fishing nets because of the presence of fishermen near them, and we were cruising in-between. Yikes!

We approached Havana as the sun rose and began to see smoke stacks and buildings in the distance. We were going to Marina Hemingway, located several miles down the coast from the main entrance of Havana where the main boat basin is but where recreational vessels aren't allowed. The water depth and approach around Marina Hemingway is notorious for being confusing. We were lucky, had no problem. One thing to know: the marina does close down in rough weather so there aren't many options for shelter.

What a beautiful country

After having sailed straight for 30 hours, just the two of us, we had finally arrived! We tied up at the Custom's seawall, filled out the paperwork, and got the boat inspected. A few guards came aboard, checked the boat out and we were assigned a location in the marina. The marina is a series of canals with seawalls for side tie up. A few of the marina attendants doubled as Customs personnel. They met us at our slip and continued to do more paperwork, mostly about personal items that we had on the boat, asking how many bikes we had aboard and the food we had. We had our first experience with the "presents." The attendants mentioned that it was soon Christmas. that they had families to take care of, and asked bluntly if we could help them out. They didn't seem very pleased with the gallon-bags worth of snacks we had prepared. It seemed like a good idea at the time, and sounded better than money. We ended up giving them 20 USD each. We were on a pretty tight budget but it was worth it, because they ended up keeping a watchful eye on our boat while we left inland for a few days.

Marina Hemingway is a nice location, with grassy fields in between the canals, a nice patio and cantina, a Chinese restaurant, and a small store general store. The chandlery had lots of cheap rum, but is not stocked for boat repairs. They had WIFI cards for a few dollars for the hotspot by the

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patio and cantina. Money in Cuba is very interesting. They have two peso currencies, the Convertible Peso (CUC) and the National Peso (CUP). The CUC (pronounced "see-you-see" or "kook") is mostly used by tourists and changes at about one to one with the US Dollar. The CUP (pronounced "see-you-pea" or "coop") is used mostly by locals and has a much smaller monetary value, exchanged at about one CUP to 4 US cents. Money can be exchanged to either of those currencies, but the CUC was much more prized than the CUP. We found out over time that it was pretty expensive to get around because there wasn't much in the way of public transportation for tourists, besides expensive taxis or fancy classic cars. We mostly took taxis and collectivos (shared taxis from '70 or '80s Russian made cars). Marina Hemingway is about 30 minutes' drive from downtown Havana, and about 25 USD each way.



The sites in Old Havana were beautiful and unique. Its reputation is indeed true: the city does seem to be held in a time capsule from the 1950's. The magnificent architecture and ornate decoration create a lovely backdrop for the culture of the city.

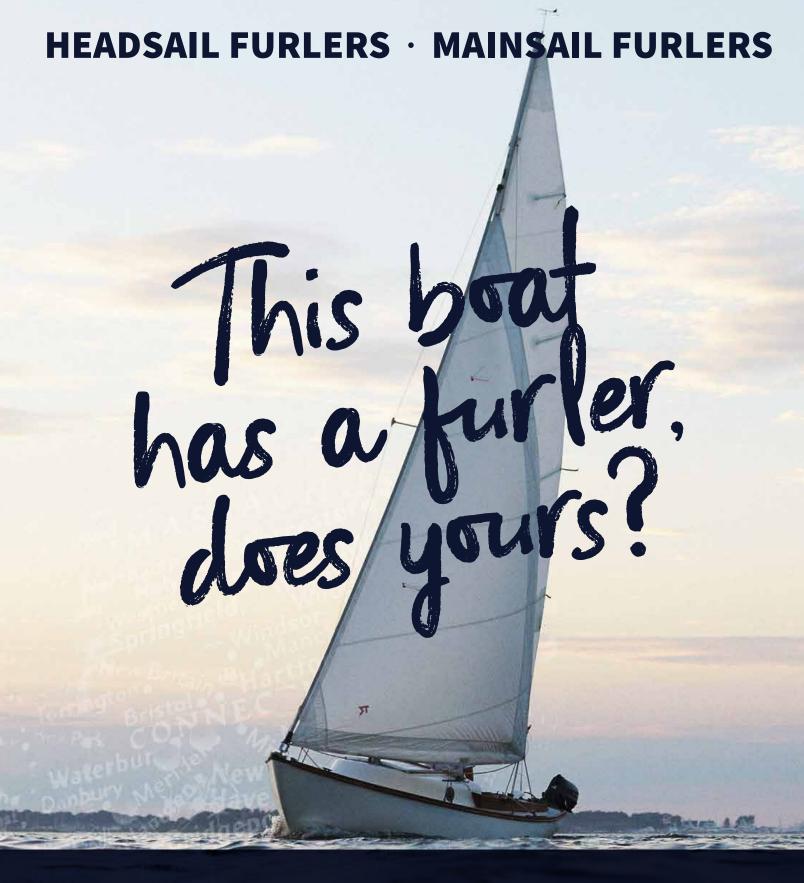
The food was usually cheap and good, as was the liquor. The music and dancing provided a vibrant pulse to the city. To get around, we had access to Google Maps on our phones, which helped a lot! There is a bit of a language



barrier, too. We ended up visiting the Viñales area (southwest from Havana), several tobacco farms, a national park, and even snorkeling down on the beach. The Cubans were eager to do business with us and happy to help us out where needed. The restaurants, lodging, and liquor were cheap and easy to come by. The one sight in Old Havana that shouldn't be missed is the oldest building in Cuba and the oldest stone fortress in the New World, the Museo Castillo de la Real Fuerza. It has a huge



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scale model of the Spanish sailing ship Nuestra Señora de la Santísima Trinidad, which all sailors will appreciate!

The Way Back: A true test of the C30

After spending 12 nights in Cuba and given expenses to date, weather forecast and sea forecast, we decided that it would be best to depart on New Year's Eve. The forecast stated that the winds would die down as the sun set and would make for a great crossing. Unfortunately, they got it wrong. The winds held a steady 20 knots, gusting to 25, and 8-12 foot swells. We all know the C30, no need to say that it was rough. We pondered turning around but didn't think the Custom's building would be open because of the sea condition and therefore couldn't even go back. It would end up being one of the roughest crossings we had ever done and how we rang in the 2019 New Year.

We had furled the head sail all the way and reefed the mainsail on the



second reef to help stabilize the boat. The engine was kept running for the autopilot and in case we needed it quickly. Every now and again, the boat would dig its nose in the next wave and water would overcome the dodger to soak us. There wasn't much to see as it was the dead of night and the adrenaline kept me awake all the way. We had gathered our ditch bag and kept hoping nothing would break and we wouldn't need to use it. The wind and waves finally calmed down after about 15 hours. At that point, I had been up for even longer. As the sun rose, our hardship was over and we could see the seascape around us. After assessing the boat for potential damage, we found that the water had made its way inside in a few places but overall, Nootka did a great job!

It was the first day of January of 2019, and after nearly 100NM, we couldn't wait to return to our home country and to our home dock. We used CBP's R.O.A.M. app for the U.S. Customs, which we found extremely simple and useful. After a night like the one we had just had, we were pleased that the experience was painless. We took a well-deserved nap at the fuel dock of Stock Island Marina and waited for the office to open.

Home Again

We had completed what would be our last voyage with Nootka. We were so excited that her last trip with us was such a memorable one. We've learned so much from her over 6 years, but we had one more lesson to learn. The engine started to spit oil all over the engine

compartment from the vent hose. Holly molly! This is typically an indicator of a blown head gasket. We came to find out that there is no backflow preventer on the exhaust line and seawater had made its way into the engine through the exhaust manifold. This seawater mixed in with the oil. We did many oil changes to get all the seawater out of the oil and engine. This solved the issue and within three weeks of us being back, Nookta was sold to become an Air BnB in Key West. We take comfort in knowing that we can always rent her for a few nights! We truly enjoyed our time on Nootka. She was a great boat to sail and live aboard. We're now in the market for a Catalina 36, which could take us further.

Our trip to Cuba taught us a lot about travel, Cuban history, and our own freedoms. Cuba has a fair amount of restrictions and after growing up in the U.S., it's hard to see the reasoning behind those kinds of restrictions. Like most things in life, there's always a give and take. Cuba seems to have a balance that works for its citizens, for the most part. Sometimes visiting other countries makes you appreciate your own country a little more. We enjoyed Cuba and we look forward to experiencing more countries around the world with our next boat.

About the Author: Jamie Hart sailed Nootka, a Catalina 30 1981 (#1988) and now lives in Kennecott, Alaska. Jamie and her husband Dub have been sailing around the Gulf of Mexico, Florida, and the Puget Sound for 9 years. She works as a Park Ranger in Alaska, sailing during her winter time off. When they don't embark on sailing trips, they enjoy traveling.

WHEN YOU FIND YOURSELF IN THE MIDDLE OF THIS...

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CATALINA 470 NATIONAL ASSOCIATION

Purrring Along for a Long Time...



C470 Association **Technical Editor** Joe Rocchio

SV Onward, C470-126, has been wandering the US East Coast from Maine to Bahamas and back since June 2007. It has been a wonderful experience that continues to hold its allure for Peggy and me. As we returned to the

Chesapeake Bay this August, it suddenly hit me that Onward was reaching a new milestone: the Yanmar 4JH3TE diesel hours of operation were now over 9,500! Obviously, I had been tracking this daily when moving - but suddenly the magnitude and its significance hit me as something that needed a lot of consideration. Engine performance remained excellent: it started in ~1 second, it did not noticeably smoke during operation, burned little oil, and continued to have excellent power and responsiveness.

I did a quiet survey of my C470 Fleet buddies and found that Onward seems to hold the engine hour record more than double the nearest "competitor." I next talked to a couple of friends who are Catalina dealers and again found out Onward was a singularity in engine hours. As our plans are to

continue our wandering for several more years, two options needed to be evaluated: replace the engine with a new unit or have substantial maintenance and component replacement done to bring it back to its youthful condition.

The Yanmar 4JH3TE engine is no longer sold in the US. The move to cleaner diesel engines has resulted in only "common-rail" design diesels being sold for US vessels. This design involves a very high pressure fuel line (the common rail) that feeds electronic solenoid fuel injectors that are computer controlled to make injections at multiple points in the cycle. The cost estimates ran from about \$10-12K for buying an engine at "discount" (if this could really be done) and supervising installation, to ~\$25-30K for a turn-key re-power job.

I decided against the re-power alternative for several reasons. The foremost was a reluctance to have such an important component totally electronic/computer controlled. One of the greatest features of Onward's wandering had been the secure feeling that as long as the engine got air, diesel fuel and could turn over once - it would run. No worries about a lightning strike rendering Onward immobile at a critical time. The second reason was that even though the Yanmar common rail engine

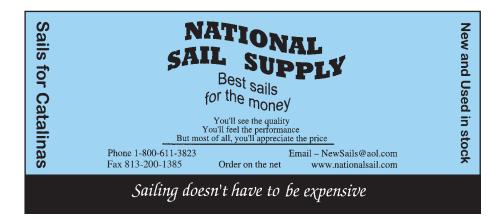
model similar to the 4JH3TE had a lot of physical similarity, I could not believe that re-powering would not require a good bit of ad-hoc adaptation to the engine mounts and sub-system connections - and lots of new bugs to fix. Thirdly, the price while not out of the question was high given that the present engine was running well.

I spoke with several boat brokers about the impact on resale of a high engine hour vessel. All agreed that at over about 4,000 engine hours any vessel becomes more difficult to sell. The best strategy they suggested was being straightforward and putting the cost of re-powering as a stated discount in the offer price.

I conducted a survey of engine dealers and mechanics about how long I could expect the 4JH3TE to continue to run well. I found no experience with recreational engines but considerable experience with similar engines in commercial vessels and farm equipment where at 10,000 hours a wellmaintained Yanmar diesel is still young and provides good performance. A key consideration is how long the diesel runs each time it is used. Many periods of short operation at lower than ~80-90 % maximum rpm can be problematic due to build-up of combustion residue in the engine and exhaust system.

Given the significant downsides for re-powering, the continued good performance of Onward's 4JH3TE, and the fact that most of the engine hours have come from long periods of operation at 80% max rpm or more, I opted for the significant component replacement

At 5,000 engine hours, I had talked to Mack Boring about recommended engine service and based on their recommendations I searched for and was fortunate to find a great diesel mechanic, Will. He performed an extensive service: all hoses, clamps, and gaskets were



replaced, the injectors were rebuilt, the turbocharger cleaned, and the heat exchanger was flushed out.

In the interval between 5,000 and 9,500 engine hours, there had been cause to replace the front main engine seal (damaged when the alternator belt failed), the fresh water pump, the thermostat, and the starter.

I contacted Will again and we discussed a substantial service program. I wanted major subsystems replaced: heat exchanger and exhaust manifold, raw water pump, engine and transmission oil cooler, turbocharger, and associated hoses, gaskets, and clamps (using SS band clamps wherever possible).

A major problem we encountered was that the oil cooler was not available in the US. A unit was finally located in Europe and shipped in. This caused a five-week delay in the service program and casting a big shadow over our wandering plans.

I have found one of the best tools for diagnosing engine maintenance problems is a clean engine and engine pan. Over the years, I strived to maintain a clean engine and at >9,500 hours it still looked almost but not pristine. While waiting for the infamous oil cooler to arrive and with many large components removed from the engine, I had the best-ever access to the engine and engine pan. I spent several hours a day for almost a week cleaning and degunking the engine and its surrounds. I wire brushed all rust spots on the engine then sprayed them with a rust fixing liquid then spray painted with Yanmar gray paint. Any non-ferrous spots were wire brushed, primed with a self-etching primer, and then spray painted with Yanmar gray. I sprayed the engine pan with glossy epoxy paint. Overall it now looks as good as new!

I replaced the brass 90° elbow on the raw water strainer exit as I discovered it had a hairline crack. While replacing the 1" hoses to and from the vented loop, I discovered that during construction the hose between the vented loop and the engine had been run between the U-shaped section of the exhaust outlet. I found it to be almost completely chafed through. Wow,

this was a very fortunate discovery as failure in this difficult to view and reach spot could have resulted in substantial flooding before the cause was determined. I reran the hose through a different route and added chafe protection. Another C470 experienced a chafe problem on the hump hose that connects the exhaust elbow to the muffler – likely caused by a similar hose routing problem.

The oil cooler finally arrived along with weather in the 20s and engine was reassembled in less than a day. I served as mechanics helper to Will providing extra hands to hold parts in place and guide tools. Even the loosening and partial removal of the forward port engine mount to get at one of the mounting bolts for the raw water pump went reasonably well. At the first touch of the start button the engine came to life purring nicely. Only 24 hours later we departed Baltimore to head south to get on with following the 75°F thermocline. All was good! -Joe Rocchio, jjr.onward@ amail.com



CATALINA 400/445 INTERNATIONAL ASSOCIATION

Improvements to Juniper - C400 # 307

Having just volunteered to take over the C400 Tech Notes from Olav (Thank you SO much for your hard work in the past, Olav!), I didn't have time to gather ideas from other owners (hint, hint!). Rather than let the space go empty for this issue, I decided to mention some of

C400 Association Technical Editor Tom Sokoloski the projects that have made life aboard Juniper better.

The first time
I sailed on Juniper

(2006 MkII), I noticed that the only handhold in the aft part of the cockpit was the grab bar above the cockpit table. There was nothing near the wheels, except the wheels themselves. I had Garhauer fabricate a pair of grab bars which attached to each of the binnacles, just forward of the compass. Each one has four ¼-20 studs which bolt through the fiberglass of the binnacles. Access to the nuts and fender washers is from the aft cabin, by taking off the fiberglass pan above the berth. Huge improvement!



Driving up to Juniper one spring while on the hard, I noticed a bird fly out of the boom. THAT was not good! The bird had started to build a nest inside the boom. With a few extensions, I vacuumed the straw and twigs from inside the boom, and fabricated a piece of ½" plexiglass to fit on the aft end. It's only attached with a single screw, doesn't interfere with the outhaul, and it keeps my feathered friends out.



It seems like every battery powered item on board has its own unique charging cord. Keeping them from becoming a tangled mess was getting harder every day. I picked up a package of Velcro "ties" which attach to and wrap around coiled cords. From my scrap bin at home, I cut a piece of 16x2x1/8" clear plexiglass, and attached two strips of "hook" Velcro. The piece of plexi was then attached to the outboard side of the locker just forward of the nav station. By winding the Velcro ties with the loop side out, the charging cords now conveniently stick to the wall of the locker, organized and ready to grab. It worked so well that I made a second organizer to attach to the inside of the louvered door.



We've often thought that because three of the four mirrors are inside the heads, they weren't as convenient as they could be. I had a local glass shop cut two pieces of 1/8" mirrored glass to fit in the outside top panel of each head door (roughly 12x26" – your dimensions may vary). A small piece of teak in each corner securely fastened them to the doors.

None of these projects are world-changing, but they make life afloat better. If you have a project or two which you've done to your boat, please drop me a note. I'd be happy to help you put together an article for a future issue of Mainsheet. **–Tom Sokoloski**, tomsoko@gmail.com



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CATALINA 380/387/390 INTERNATIONAL ASSOCIATION



It is with mixed emotions that I have stepped away from the C380/387 World. My wife and I have "retired" from big boat sailing with the recent sale of our wonderful boat, Morning Glory (C380 #34). As part of that I'm handing over my Tech Editor role to Todd Gaier. Todd has been a past contributor to Mainsheet and has the passion we need to take the baton. The community of C380/387 owners is very strong, the boats are marvelous, the knowledge and passion we share is contagious. Thank you all and I wish you fair winds. **–Michael Gilmore**, formerly C380 #34, Morning Glory

A Latex Mattress Tuned To Personal Taste



C380/390 Association Technical Editor Todd Gaier



C387 Association Technical Editor Tom Brantigan



C385 Association Technical Editor Chuck Couture

Spring is almost here and change is in the air. For years the C380/385/387/390 Association has maintained a strong presence in our Yahoo Group. In November, Yahoo announced that it would end groups support. A small but enthusiastic team of members addressed the impending crisis and successfully navigated the user group and its contents to a new host site. The new location for the group is: https://groups.io/g/ catalina380

The new site is already active with hundreds of members and the traditional honest, spirited respectful and genuinely helpful discussion, which is the hallmark of the C380/385/387/390 members and owners.

Our Tech Note this month is from

Bob Langan, providing detailed information on how Catalina owners can get a better night's sleep by making your own multi-layer foam mattress suited to your personal taste.

Finally, I would like to thank Mike Gilmore for his work as past Technical Editor. His knowledge and advice have been highly valued and always been freely shared and I only hope I can fill the role half as well as he has

done. I wish him the best in his future endeavors. **–Todd Gaier**, tgsail1@earthlink.net

I am picky in what I find to be comfortable in beds. I have returned so many home mattresses to retailers after a trial period that I am probably on their secret Do Not Sell list. As a result, I have spent considerable time constructing custom mattresses at home from layers of latex "toppers" and base layers in order to achieve the feel that I want. The learning process was not cheap, but I have arrived at a combination of latex layers that works for me.

When my wife and I took delivery of our C385 in late 2013, we found the OEM mattresses not to our liking (I have not tried the Froli Bed Springs). I then used my experience with building home mattresses to build custom latex mattresses for our boat.

I felt that I only had about 7" to 8" of thickness with which to work on the boat (the OEM mattress was about 5"), in contrast to my home mattresses, which are 10" or more. My own tastes tend to what the mattress industry might call "cushion firm", as do my wife's tastes. The "cushion" occurs in the upper 2"-3" of the mattress, which needs to be more compliant to prevent pressure on parts of the body that stick out when sleeping on one's side, like a shoulder or hip. The "firm" is to keep one's midsection from sinking too far into the mattress, such that the lower back gets sore. The latter requires the deeper layers to be stiffer than the surface layers (much like a box springs/ foundation), but the surface layers play a role, too.

The firmness or compliance of latex is rated by its Indentation Load Deflection (ILD), a measure of how much force is needed to compress the foam

by 25%. An engineer would call this a spring constant, and it is one way to compare the feel of various foam products offered. But the reality is that it is a measurement under only one specific set of conditions, and doesn't completely capture how a particular foam product will feel in use. The latex market is dominated by two different manufacturing processes, Talalay and Dunlop. If no synthetic rubbers are mixed in, both processes have an "all-natural" designation. These processes are described extensively on the websites of companies that sell latex mattress and topper components (see some suggestions at the end of this note). A Dunlop layer of the same ILD as the Talalay usually will feel slightly firmer and will be slightly denser than the Talalay. Thick layers of Dunlop tend to be firmer in their bottom than in their top, as well, so they can have an "up" direction. Latex is available in a relatively wide range of ILD's, from about 14 to 44, with which to achieve a custom feel. Most people prefer 24-29 in the topmost layer.

I've settled on using Talalay for the upper 1"-3" of my mattresses and Dunlop for the rest. Based upon my experience at home, I think the Dunlop is slightly more durable, and the Talalay slightly more breathable. In the 6 years we've been using our beds on the boat, I have not noticed any breakdown of the Talalay (as indicated by a slight loss of ILD at the most used pressure points), but I have in more extensive home use. At home, when I start to feel the upper layer lose firmness, I flip it, but this luxury isn't always available on a boat mattress, due to their asymmetry. At some point one might replace the top layer outright, for a "like-new" feel.

The first figure is a schematic of the layers I settled on through trial and

CATALINA 380/387/390 INTERNATIONAL ASSOCIATION

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2" ILD= 28 Talalay

2" ILD= 30 Dunlop

1" ILD= 36 Dunlop

2" ILD= 44 Dunlop



error. The upper 2" are Talalay latex of ILD 28 and the rest are Dunlop latex of increasing ILD, as indicated. If I wanted to soften the "feel" slightly, I would convert the third inch from the top from 30 ILD to 28 ILD, or make the top 1" a 24

The first figure is a schematic of the layers I settled on through trial and error. In the picture one can see the layers at the foot of the mattress in our forward berth.

ILD, but probably with Dunlop latex, rather than Talalay, for better durability. I also found that using only 6" of foam created too firm a mattress for my taste.

In the picture one can see the layers at the foot of the mattress in our forward berth. Each piece was cut individually with sharp scissors from a standard, queen-sized rectangle to fit the space properly. I was able to use the OEM mattress as a template, but initially cut the pieces slightly oversized. Because the mattress is constructed of individual layers, one can fit odd shapes easily, and including accommodating sloping sides. However, each layer will spread out a little during early use, in part because they are shipped in a compressed state. Once the pieces have settled in, one can trim the excess with a scissors or an electric carving knife (which I haven't tried).

If fire retardancy is a concern, one could put a wool pad on top and encase

the stack of foam and wool with a natural fabric, like cotton. Most of the latex sold for do-it-yourself mattresses is not treated with fire retardant chemicals, because many customers are looking for an "all-natural" solution. I placed a standard, thin wool pad on top and folded the excess over the sides. The pad and latex layers are then confined by custom-fitted sheets made by a company that specializes in bedding for marine and RV applications.

My own experience with wool pads is that they actually make the latex feel slightly firmer at one's pressure points, although the pad does increase the breathability. Latex breathes much better than untreated memory foam products, and I don't think it feels hot.

Each of the queen-size mattresses on our C385 weighs about 60 lbs. at a 7" thickness. Before trimming the foam to fit the odd shape of a berth, a queen-sized rectangular layer 1" thick weighs between 9 and 14 lbs. Because one is usually dealing with 2" thick pieces at a time, the weight of a single layer isn't too hard to move around. Latex is prone to tearing if one is not careful handling it.

The typical cost of a queen-size topper ranges from \$90 to \$130 per inch of thickness, putting the cost of the whole mattress at around \$700, before considering wool pads and the cost of tuning the feel to one's own tastes. Many online retailers allow you to return a topper, so one can put together a test bed on the floor at their home before committing to cutting the pads to fit the boat. There is a greater selection of latex in 2" thick pieces, than in 1". I have purchased from many of the online stores over the years, based upon the price and selection available at the time. Some of these retailers are Mattresses. net, SleepLikeABear.com, SleepOnLatex. com, SleepWarehouse.com, and UtimateSleep.com. Some also sell through storefronts like Amazon. -Bob Langan, C385 #36, blangan1@yahoo.com & bob@ meggeo.com



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CATALINA 36/375 INTERNATIONAL ASSOCIATION

Replacing Motor Mounts



C36 Association Technical Editor Pre Mk II hulls Leslie Troyer



C36 Association Technical Editor Mk II hulls Chic Lasser

Let's talk about the Rodney Dangerfield set of devices on the boat (if you don't get the reference the Boomer in me says ask your [Grand]Parents - or for gen XYZ google the wiki and get over it). You've (or at least I have) spilled oil on them, doused them in salt water, ignored them, hope like heck they don't need to be replaced or adjusted. Yup – your motor mounts.

They can cost you between \$640 and \$960 (USD) to do all four, add to that several hours installing

and adjusting. Expensive indeed, but I'll discuss what to look for in alternatives.

So what do these gems do? They have four main functions.

- Hold the engine in the boat even upside down
- Align the engine with the propeller shaft
- Absorb vibration from the engine
- They are the final piece of hardware that transmits the power from the prop to the hull, pushing you forward when motoring.

Think about this for a second, then think about the boat powering through heavy chop where all the stuff down below ending up on the cabin sole. Not only are the mounts holding the 300+lb motor/transmission in place - they are pushing the boat forward through that mess. Very, very impressive.

I am not going to get into shaft alignment (too much info for one column), so be sure you understand how to align your engine to the shaft as that is required when replacing the mounts.

If you want to skip the technical BS and get to the bottom line - jump to the Bottom Line section.

Mechanical Considerations

Now you know a bit about what the motor mounts do, let's look at the variables that go into selecting the right one for our engines.

- Mounting holes spacing, slots, diameter.
- Engine Mount Stud Size
- Adjustment Range, Max and Min above mount base.
- Durameter Measured in "shore," flexibility of the rubber

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(continued on next page)

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Catalina 310, 2002



Catalina 42, 2004



Catalina 34, 2005





Catalina 380, 2001



Catalina 36, 2001



Catalina 350, 2008



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Catalina 28, 1995

Catalina 375, 2003

Catalina 400, 2010



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Spacing on MKI's should be 4" or 100mm, later boats may have 5" mounting holes. Some boats with 5" spacing actually have 4" mounts fitted, the extra inch is made up with a metal plate. Several folks on the Forum have reported no problems drilling a hole at 4" and moving the engine aft 1/2". The slots are to center the motor on the shaft - you should get mounts with either one or both of the holes. Mounts without slots is ok, if your current mounts don't have slots, but I would want one with slots. The studs will be 5/8 or 16mm to fit. Don't use Anti-Seize on the studs, a spray of corrosion blocker is fine. When tightening the bolts on the stud, always use two wrenches, one on the top nut, the other on the bottom. The mounts use lag bolts to fasten the mounts to the engine stringers. If yours are loose, you'll need to repair the hole before installing new mounts. If your washers need replacement purchase grade 5 or 8 steel flat washers.

Mount manufacturers will recommend a specific Durameter for the engine weight and RPM range. I've read where PYI has recommended stiffer mounts for the rear of the engine and lighter mounts up front (rear mounts support more weight from flywheel and transmission). Sometimes the recommendation has proved incorrect based on field use.

Failure Methods

How do you know when to change your mounts out? I'm installing new shaft, PSS-Dripless and cutlass this Winter/Spring, so it is a great time for me to swap them out, as I won't have to do a second alignment for some time. Here are some things to look for to see if it is time to replace your mounts.

- Broken Studs
- Stud thinning (where stud hooks to engine) caused by loose stud nuts (remember two wrenches).
- Punky degraded rubber
- Stud has "let go" from rubber.
- Excessive rusting/corrosion making adjustment impossible (corrosion block spray)
- Engine moving excessively (forward or side to side)
- Vibration you can't trace to anything else.
- Not a sign to get new mounts but, loose lag bolts.

Replacement

Installing new mounts is as easy as fully loosening the 4 top nuts, and removing the 4 bolts on the shaft coupler. Jacking up the engine and removing the lag bolts and top nut one mount at a time. Match the height of the bottom bolt of the new mount with the one you just removed to get a close starting loca-

tion for alignment. Rinse and repeat. Scissor Jacks can work well for this, as well as a deflated fender or basket ball under the oil pan. I have also used an alternative method, of removing the lag bolts, then removing the whole mount from the engine block, skipping the jack altogether – all depends on what access you have.

Bottom Line

The overwhelming recommendation from our forum is the Vetus K75 as a good choice for the M25 and variants, I currently have the DF-2205-2 on my M25 and will have selected a replacement by the time you read this. Most of the mounts in the table below have prices ranging in the \$30-40 each range, making shopping for a replacement well worth the minor effort. A final note here - there are other mounts that will work for our engines, but these were mentioned on our Forum or in my independent research. Be sure and check with the vendor for suitability for your boat/engine combination. -Leslie Troyer, leslie@e-troyer.com

Manufacturer	Mount	Engine	Notes
Bearings, INC	DF-2205-2	All	
Bearings, INC	DF-100	M35 (all)	
Vetus	K75	All	
Vetus	K50	M25	Reported Spongy
Vetus	K100	M35 (all)	
R&D	800-062	ALL	
R&D	800-024	M35 (all)	Reported Way too Stiff
Metalastic Cushyfloat	17/1699-55	ALL	OEM on some later boats
Barr	80001	M35(all)	5" mount only

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CATALINA 350 INTERNATIONAL ASSOCIATION



C350 Association Technical Editor Scott Monroe

This article is important for all sailors out there to read and prepare for. The proposition of losing steerage is scary. As Eric explains, he was very fortunate to be so close to safety when it happened, his story and the research he did is very enlightening. If you are interested in learning more about types of corrosion, BoatUS has a good introduction (www.boatus.com/BoatTech/articles/marine-corrosion.asp).

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

How I Lost My Rudder – Corrosion

By Eric E. Ludin, Free Spirit, 2005 Catalina 350

It was sunny with a 10 knot breeze and there was no way my wife and I could resist a day sail. We motored our boat out of the slip, made a turn to enter the marina fairway and heard a loud bang. The boat immediately went into a spin and I instantly realized I had no steering. I shifted from forward to reverse and back to avoid striking nearby yachts then noticed my rudder floating next to me.

Thankfully, a catamaran heading toward me witnessed the event and threw me lines to secure my position in the fairway. Someone else came by in his dingy to push me back into my slip. It was a miracle that my boat did not damage anything.



Ludin rudder

After tying my lines, I headed to the other side of the marina where someone had pulled my rudder out of the water. At this point, I was utterly confused and shaken. How did my rudder snap off? I did not strike anything.

When I recovered the rudder, I noticed on top of the rudder that there was a small foam like protrusion come from where the rudderstock would be. I did not see any metal that might make up the rudderstock. There was a rust color on the rudder near the foam remnants of the post. See figure 1

As I rolled the dock cart loaded with my errant rudder through the marina, I received multiple opinions from the dock "experts" on what had happened. As it turned out, not one was close to correct. Few boaters, even experienced ones, have the knowledge of what caused this to occur. I now know that what happened to my boat was foreseeable, avoidable and very dangerous.

You should know that Catalina boats have rudders attached to the rudder quadrant by stainless steel rudderstock. The hollow stock is filled with a foam material infused with resin to add strength. After hauling my boat, I learned that this stainless-steel rudderstock had completely disintegrated. See figure 2 (photo of the underside of my hull at rudder attachment point). All that was left were the remains of the foam insert

I became determined to not only have the boat repaired, but also figure out exactly why this happened to make sure it would not happen again. I first



Boat at haulout for surveyor

reviewed what led up to this event.

About six (6) weeks earlier, my diver called concerned about a white substance that he noticed covering my propeller, zinc and shaft. He cleaned it off and everything looked fine. I decided to wait two more weeks until the next bottom cleaning to see if it returned. It did. My boat electronics installer hypothesized that a short circuit in my DC charger might be causing an underwater electrical problem. Based on this theory, I sent the charger off to the manufacturer to be tested. Two weeks later, the diver reported that there was no longer any white substance on the prop. I wrongly concluded that I found the source of the problem. I ignorantly assumed that a short in the DC charger was causing my boat to consume my neighbor's zincs (hence the "white stuff"). Bench testing by the battery charger manufacturer proved that the DC charger was working fine and had nothing to do with this episode.

I decided I needed to understand the theory of how underwater electrical current can damage a boat.

Galvanic Corrosion v. Stray Current Corrosion

All boaters are vaguely familiar with the concept of galvanic corrosion. Differing metals electrically connected, and immersed in seawater, will cause a transfer of ions through the water and electrons through metal-to-metal connection. This will occur over a relatively long time, and causes the least noble metal to deteriorate. We use sacrificial



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zinc anodes on our prop shafts and heat exchangers to prevent galvanic corrosion damage to important components. Galvanic corrosion had nothing to do with why I lost my rudder.

I later realized and proved that I lost the rudderpost because of stray current corrosion. This electrical model is both different and much more dangerous than galvanic corrosion. The type and quality of metal is irrelevant. Sacrificial anodes will not protect the metal from damage. For stray current corrosion to occur there has to be two separated underwater metals; one to act as an anode that will give up material, the other metal acting as a cathode which will receive protective current, both immersed in a common electrolyte, and a power source. The anode is in contact with the positive of a DC power source and the cathode will be connected to the negative of the same power source. As with galvanic corrosion, electrons flow through the metallic path and ions flow through the water path (electrolyte).

This power source can be a number of things, but it is most commonly a storage battery. With galvanic corrosion, the voltage difference from most active to the most noble metals on the galvanic series chart is less than two volts DC and anode wastage is slow. In the case of stray-current corrosion, the difference between anode and cathode could be as much as full battery voltage. The impact of this large voltage difference is huge in terms of the amount and rate of destruction of the anode.

I realized that somehow, my rudderstock became an anode and the prop, prop shaft and zinc became the cathode providing a pathway back to the negative terminal on the battery. As the cathode, the prop, prop shaft and zinc were protected. The only way for this circuit to be completed would be for the rudderstock to become positively charged.

Catalina yachts do not bond the rudderpost. This means that there is no ground connection to the rudderpost and it is not connected to any electrical circuit. So, how is it possible for the rudderstock to carry DC voltage?

The Cause of DC Leakage

While away from my boat, I have a habit of turning off the DC panel. I had left the boat plugged into the dock with the air conditioning and battery charger on. I also left the main battery switches on including one to my starter battery.

While laying in bed unable to sleep, it suddenly dawned on me that if there were a hot wire in my steering pedestal that somehow came in contact with the steering chain, it would be metallically/electrically connected to the rudder quadrant and rudderstock. Since I did not switch off the main battery switches, but did switch off the DC panel, my starter circuit would have electrical current all the time whereas the other DC circuits in the pedestal were off. The starter circuit has wires in the pedestal going to the key switch and starter button. Could a loose wire in the starter circuit have come in contact with the steering chain?

I hired Charlie Johnson, PE of JTB Marine Service to find the suspected voltage leak. Charlie is an electrical system specialist and ABYC Master Technician. He liked my theory about stray voltage and set out to test whether this is what caused the damage and find the source.

After the initial haulout for the insurance surveryor to see the extent of the damage, the boat was returned to the water for Charlie Johnson to do the electrical testing. See figure 2 photo showing condition of the hull after initial hauled for the surveyor to inspect. It was important that the source of the stray current testing be done before the new rudder was installed otherwise the new rudder could sustain damage.

First, he took a voltmeter and connected one lead to a silver/silver chloride metal that he lowered into the water next to the boat. The other lead was connected to the drive shaft. With the battery switches off, he measured -1015 mVDC representing a normal condition in Tampa Bay for a stainless steel shaft and bronze propeller protected by a zinc sacrificial anode. With the starter battery switch on, he measured -1717 mVDC representing a very significant increase in stray voltage. This test established that there was a voltage leak and it was from the starter circuit.

To find the source of the leak, he removed the instrument panel from the steering pedestal and observed a bundle of wires resting on top of the steering chain. When the wires were inspected, two positive wires, both running from the key switch, had chafed insulation.

The steering chain had apparently rubbed the insulation away. The wires themselves were intact which is why the engine started without any difficulty. See blue box in figure 3.

Once the wires were removed from the chain, Charlie retested the shaft potential against the reference cell and found a normal reading. Charlie advised that this was a classic case of stray current corrosion. The white substance that my diver observed on my prop was carbonate created by the ions shed from my rudderstock. It had disappeared by the time of the third visit from my diver because, by then, the rudderstock had largely disintegrated.

I have owned this boat for over ten years. During that time, I have had the electronics replaced and repairs made to the starting circuitry. Marine electricians have accessed the wires in the pedestal. I never removed the instrument panel myself for the purpose of checking the conditions of the wires. Clearly, whatever cable ties and "U" clamps that secured the wires had been cut and not adequately replaced. It is also possible that these plastic protective parts broke with time. But, before this episode, I would never have suspected that an unsecured wire could cause my rudder to snap off!

Rudder replacement

The rudderstock cannot be repaired since the rudder is molded around it. Catalina built me a new rudder from molds they have in their factory. I visited the factory to see how they would build my rudder. The rudderstock is actually a long stainless steel post with lateral flat plates welded to the post. See figure 4 showing examples of rudderstocks before going into the mold. The post with the plates attached goes into the mold. The mold is filled with high-density plastic foam core, which is wrapped in a fiberglass skin. This foamcore construction is relatively light with neutral buoyancy, which explains how I was able to recovery my errant rudder. Figure 5 shows my rudder at the factory after they completed construction.

Catalina is charging a little over \$3,500 for the C 350 rudder. It took the factory eight (8) weeks to build mine, though they said it should typically take three (3) weeks depending on their schedule. I hit them at a bad time as they were busy finishing construction of the C 545 for the Annapolis boat show. After adding the cost of the haul out, labor, paint, etc., the total cost will be about \$10,000.

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Rudderstocks before mold



New completed rudder



Chafed wires and steering chain

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What we need to know

110 volt AC voltage is very dangerous and can kill a person. 12 volt DC voltage might not kill you, but it can do serious damage to a boat. Owners must check their DC wiring. Any break in insulation can come in contact with underwater metal and create an anode/cathode relationship which will quickly disintegrate the anodic metal. Owners must be especially mindful of the wiring in your steering pedestal because of its proximity to the steering chain.

I realized that if I had discovered the problem the moment my diver called to tell me about the "white substance", I still would have needed to replace my rudder. There is no way to measure the amount of damage that had occurred by that time. At the very least, the rudder-stock had been seriously weakened.

I questioned whether I made a mistake by leaving the boat with the battery in the on position. I realize now that this allowed me to discover the problem

while docked. If I only turned the battery on when sailing, the rudder would have deteriorated over time whenever I was using the boat. If I went on a two-week cruise, the rudder might have snapped off while heading home.

This concern is not unique to Catalina yachts. It can happen to the most expensive boats on the market. If the rudder had been bonded, it would have been protected from this type of corrosion. Once the hot wire touched the chain, it would have caused a short circuit and likely blown a fuse. If the rudder were bonded, it would be subject to galvanic corrosion and would require placement of a nearby zinc anode which is extremely difficult to design. For this reason, I do not fault Catalina for not bonding the rudder.

The bottom line is that all boat owners must be aware of the dangers of stray current corrosion and take steps to avoid it. The best way to prevent this from occurring is to make certain your DC wires are secured and protected against chafe.

I made an insurance claim on my boat policy. Unfortunately, most boat policies have exclusions for corrosion. As of today, I still do not know whether this claim will be covered under the policy. It is my understanding that "yacht" policies may be available for a slightly higher premium which do not exclude corrosion. I would recommend you check the exclusions on your insurance policy.

Finally, if you have an underwater electrical issue, do not rely on so-called "experts" at your marina. If I had not educated myself about how such an event occurs and had not hired a qualified expert, I might not have found the true source of the stray current. It is very likely that I would have had to replace a second rudder. **–Eric E. Ludin**, Free Spirit, 2005 Catalina 350

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CATALINA 34/355 INTERNATIONAL ASSOCIATION

M25 Raw Water Pump Stud Support Repair



C34 Association Technical Editor John M Nixon

C34 Associate Technical Editor Ron Hill Special thanks to Stu Jackson for submitting this article. **-John M Nixon**, c34hull728@gmail.com

In March 2018, I took a Winter Cruise to meet two friends in the San Juan Islands. It was the first time I wore all of my ski gear on the boat! When I returned, I found a mess of oil in the bilge, running

down from the raw water pump.

I was considering calling this article: "Dark Matter & Wet Holes" but thought it wouldn't help if someone was searching for this subject! This is the story of a nine month ordeal to eliminate that oil leak from the raw water pump.

I originally thought the raw water pump oil seal had failed. In March 2018 we had 3390 engine hours. That first repair entailed rebuilding the pump with new seals because that was the "logical" response to an oil leak from that pump. The work also included cleaning up all the oil, painting the front of the engine and oil pan, removing both of the small doors to the dipstick and the alternator to clean the engine sides up, and cleaning the inside of the lower companionway stairs. The lower left stud was

loose, so I replaced it with a new one sourced from our local Kubota tractor dealer.

That repair lasted only about a month but I got to the Catalina Rendezvous at Roche Harbor and back. So now in May, with 3414 engine hours, I removed the newly rebuilt pump, cleaned up the oil, and remounted the pump. Since I seemed to be having issues with the integrity of the lower left stud not holding firmly in the gear case cover, I used an equivalent bolt to replace that one stud. I didn't repaint the engine this time.

That repair lasted about a month but I got to the Canadian Catalina Rendezvous at Telegraph Harbor on Thetis Island. So now in July, with 3451 engine hours, I again removed the pump, cleaned up the oil, and remounted the



March Nice cleanup and paint job



March First Oil Leak



July Oil Leak

pump. I didn't repaint the engine this time either.

Are you beginning to see a pattern here?

I went back into my treasure trove of photos of this now-too-familiar part of my engine and found a photo I had taken way back in March. What I had thought was just a small amount of missing metal around that lower left stud turned out to be that most of the lower left portion of the entire area of the threads for that stud was completely gone! [See Photo 7] I hadn't connected the recurring oil leaks with a stud failure, but thought it was first the pump seals, and then a sealant issue between the pump body and the gear case cover.

Instead of pulling what little is left of my hair out, I started thinking about solutions. I thought about driving to Sidney to the nearest Universal repair shop, but then realized (yet again) that there is this lovely little Kubota tractor dealer right down the street from me. I showed the photos to Dan, a real mechanic, not just a counter jockey. I asked him what he'd suggest and he said "J-B Weld, or Devcon or All Metal. Clean it up thoroughly and epoxy the stud in there." Lots of thin applications, not just a big wad. Of course, he'd never seen anything like it. So I bought some I-B Weld, and built it up around the hole and glued yet another new stud into the hole.

That repair lasted about a month but I got in more local cruising, including a nice Labour Day Cruise to Annette Inlet, my favorite anchorage. So now in early September, back in my slip with 3505 engine hours, I again removed the

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July dry fit before JB Weld



July dry fit before JB Weld

newly rebuilt pump, and cleaned up the oil. When I remounted the pump on September 16th, the stud backed out, so I removed the pump again.

In October I had some minor surgery and used the downtime to get in touch with friends by email: "I remounted the pump (I'm beginning to forget how many times, but I'm getting damn good at it!:)) near the end of September. This was after I had built up the J-B Weld for the second time, enough to warrant having to file off some to make it flat to the pump base. I installed a brand new clean stud and slathered it with the J-B Weld as it went into the hole. I set it up so that I could actually put a standard nut and crush washer on, not a nylock, because the last time the nylock screwed the new stud out right away. I let it set for 48 hours. This time the stud backed out as I tightened the nut. No luck. Of course, the stud was the last one I had put a nut on and tightened, so the pump was and remains back on, but I don't

anticipate success with this try either. Last time I got 46 hours before oil started seeping out. I haven't started the engine since."

In the meantime, since we have such a nice boating community here, I kept putting the word out. I spent some time with a local mechanic who suggested a different sealant. Another internet forum coincidentally discussed using inserts, as well as drilling and tapping a new hole.

In the middle of all of this, I went to visit Gartside Marine in Sidney on September 17th. Ben Gartside is well known as "the" local Universal engine expert. I showed him the pictures, he shook his head, and then he said, "Come with me." I followed him to his shop, where he hoisted himself up onto his shop bench and reached up to highest shelf and brought down two engine gear covers!!! I looked at them, both in reasonable shape, and we figured only one was the right one. I said thanks and left. On my way out of town I ended up

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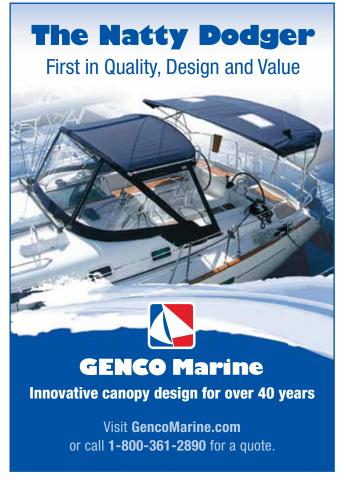


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in the right instead of left lane and had to go around again which put me back on the road to Ben's shop. So I stopped again and asked him "How much?" and he answered "\$50." Sold. Karma... from an old California boy. I am now in possession of an M25 gear case cover, which I know from my experiences on the C36 and C34 boards are impossible to find. This is my "Last Resort." I know I'm not up to doing this, because I'm not an expert on removing at least twelve 32 year old bolts from the cover into the engine. The "new" gear cover also has the coolant pump still mounted, don't know if it works as well as the one I already have. I haven't got the nerve to even think about trying this myself.

At the end of October I provided my friends an update: "Since my last emails on September 25th and October 15th, I've received a lot of helpful input. I have also been busy "gathering" tools and other implements of destruction. I took the pump off again on October 16th, after my surgery recovery. After following the October 12th Aluminum Paste thread on SailboatOwners.com, I began thinking of using a better product than J-B Weld to encapsulate a new stud. Devcon was noted in that thread, and was one of the materials suggested to me by the Kubota tractor dealer months ago, way back in July. We couldn't find small amounts of any Devcon product here on the Island, so we had to use Amazon.ca. Anything larger costs \$125 plus tax, while the tubes are only \$13!!! I plan to "glue" the stud in with this new Devcon Plastic Steel Epoxy and try a dry fit with the pump to see if the Devcon holds the stud. Last time back in September, I only learned the stud backed out after I had re-mounted the pump with its gasket and sealant. This time I could mount the pump dry and see if the stud holds. If it doesn't, I'd "escalate" and go to the drill & tap route."

The Devcon finally arrived and I used in on the area on November 6, and glued yet another new stud into the hole. I should have dry fit the pump on to hold the stud up from "drooping" but I didn't. When I dry fit the pump back on a few days later it was a tight fit, but it worked, so I got out another gasket and the new Ultra Black Permatex sealant I'd bought at Duncan Auto, and reinstalled the pump.

The 2019 season was uneventful as far as the oil leak was concerned, and I



November Devcon and Stud

The 2019 season was uneventful as far as the oil leak was concerned, and I had a series of enjoyable cruises.

had a series of enjoyable cruises. I put 135 hours on the engine. The Devcon product appeared to be the key to successfully holding that lower left stud in place.

For long time, I may have been in denial. I thought at first that the issue was the pump seals. After I fixed that, I thought it was because of bad gasket material. Then I tried JB Weld, but that simply wasn't strong enough to hold the new stud, and I also may not have built it up enough. I eventually identified the REAL problem of the missing gear case cover material around that stud, did my homework and research, albeit belatedly, with friends and other

internet boating forums, as well as local mechanics. I finally found the right adhesive that worked to secure the stud and hold the pump body tight to the gear case cover. That March 2018 photo shows what I can only present as a complete casting failure, because there were no water leaks from the pump, and the oil leak was not from the seals. I still need to repaint the gear cover and oil pan! I got altogether too good at removing and remounting the pump.

I am indebted to all those who pointed me in the right direction and helped me not only maintain my sanity, but to find the right goop to use. **-Stu Jackson**, Aquavite, Hull #224



March 2018 Should have looked closer

CATALINA 320 INTERNATIONAL ASSOCIATION

An End to Overheating



C320 Association Technical Editor Mark Cole



C320 Association Technical Editor Jason Reynolds

We all learn lots about boat maintenance with each project we do on our boats, and I'll share my major lesson from this project: Advice from the C320 discussion group is usually spot on! Unfortunately, I didn't learn this lesson until near the end of the project.

Fiddler's Green has had overheating problems since I purchased her three years ago. Usually just a minor rise in engine coolant temperature and we catch it with the regular check of the gauges we do

every 15 minutes or so while motoring. Until our last long trip of 2017, anyway. It really was our last trip of the year, because the engine overheated and built up enough pressure that a small leak in the oil pan expanded into a crack and leaked all the oil out into the engine bilge. Just as we were pulling into the slip, so I guess we were lucky in that aspect!

Before the oil leak forced the issue, I had posted a question about my Perkins M30 overheating to the discussion group. I got some good information back and many of the comments mentioned the exhaust mixing elbow and how it can clog with corrosion and restrict the flow of cooling water. I looked at the mixing elbow on my boat and it looked clean from the outside, so I decided to start my search for the overheating problem from the other end of the raw water cooling system.

The thru-hull and raw water strainer both checked out so I moved on to the raw water pump. There was a pretty persistent leak from the back of the pump body while the engine was running, so I took a closer look at that. A post to the discussion group and a little research and I decided to rebuild the pump. There are two seals inside the pump that can wear, so I ordered a rebuild kit from Tacoma Diesel, my

local Perkins supplier, for \$110.00. Removing, disassembling and rebuilding the pump was straightforward and the leak was gone when all was reinstalled, including a new impeller, but the engine still overheated.

On to the heat exchanger. I removed the end caps, slid the heat exchanger out and took it to a local shop to have it pressure tested. They said it was very clean and passed the pressure test, so I reinstalled it then flushed and refilled the coolant and started out on the fateful trip.

We knew the engine was overheating as we turned into our fairway and headed for the slip, but we were within 100 yards of tying up, so we kept going. We got the boat tied up and shut the engine down as quickly as possible and I dove below to remove the engine cover only to find the bilge under the engine full of hot oil. "I guess I'm going to have to solve this overheating problem for sure now..." I muttered to the engine. (My wife remembers me muttering something a little different...)

After a little clean up and investigation, I found the crack in the oil pan so I knew I would need to replace that so I decided to replace the mixing elbow at the same time. My friend and boating buddy, Kevin, runs the repair yard at Breakwater Marina in Tacoma and stopped by to take a look at my oily mess. Before talking to Kevin, I had visions of a repower project I helped a friend with a few years back. He rigged an elaborate hoist from his boom and ran ropes around the engine to lift it out of the boat. One of the ropes slipped off of the front of the engine while it was a few feet above the cabin sole and it almost made a crash landing in the bilge!

Right about the time Kevin climbed aboard, I was imagining an engine-sized hole in my hull and the water rising fast. "No need to hoist the engine." he said, "We can just slide it forward and lay it on its side in the galley. We do it all the time...". After talking a little more, the project became much more manageable and I had my list of tasks to complete before Kevin came back to help slide the engine forward.

I took photos of all the hoses, wires and cables attached to the engine and

then disconnected them all. I unbolted the propeller shaft from the transmission. Kevin suggested removing the bolts that attach the engine mounts to the hull stringers instead of removing the nut that holds the engine to the mount. This is the secret that would allow us to slide the engine forward instead of needing to lift it off of the engine mount bolts. I just needed to trace all four mounts as they currently sat on the stringers and label the aluminum spacer plates between the mounts and stringer so the engine would bolt back in the exact same place when we slid it back in.

The last major task on my list was to remove the bulkhead between the galley and aft cabin so we had unobstructed access to the engine. A few screws and a little wiggling and it came right out. I then covered all galley surfaces with a heavy duty cardboard called RamBoard to protect from scuffs and leaks and called Kevin.

I was surprised by how easily the engine slid out of it's "engine room" and onto the wood skids we had laid on the galley sole. Two guys and a few grunts and it was on it's side with the oil pan accessible. I had ordered the new pan and the two required gaskets from



Removing the two bolts that hold the engine mount to the stringer instead of the nut that holds the engine to the mount allowed us to slide the engine without lifting.

Tacoma Diesel for \$237.76. Removing, cleaning and replacing was very simple and only took a couple hours. I was relieved when all of the bolts around the oil pan came right out without any scraped knuckles. Making sure the gasket surfaces were perfectly clean took a little scraping and Citrus Wonder cleaner but, again when smoothly.

Boy, with the engine sitting in the middle of the galley, lots of maintenance

projects become much easier. It was much simpler to remove the rear heat exchanger boot and unbolt the mixing elbow in this position. Once I got the mixing elbow free from the engine block, it became very clear what was causing my overheating problem! The passage through the mixing elbow was reduced by at least 50%.

I had ordered a new stainless steel mixing elbow and new heat exchanger



I should have listened to the discussion group!



With the small plywood bulkhead between the galley and aft cabin removed, access to the engine is easy.



With the oil pan removed, I inspected the bottom end of the engine - it looked very clean.



New elbow installed with new heat exchanger boot and black 1-3/4" to 2" adapter in place.

end caps from Parts4Engines in England for \$400, including shipping. They were great to work with and the parts arrived in a few days. The only installation issue I had was the smaller size of the exit port on the new mixing elbow. It was 1-3/4" while the hose fitting on the muffler was 2". I stopped by a local shop specializing in marine hoses and they had the perfect fitting to solve the problem. This fitting, a short section of 2" exhaust hose and 4 T-bolt clamps added \$44 to the project.

The engine was now ready to slide back into place. With Kevin's help, this was just as easy as sliding it out. After replacing the aluminum spacers under the engine mounts and tapping the mounts back into their exact location, the shaft and transmission lined up perfectly. Thanks to the photos from the start of the project, reattaching the hoses, wires and cables was simple and I obviously didn't leak any fuel as the engine started up without needing to bleed air from the lines.

The first thing I did after firing the engine up was to walk around to the end of the slip next to mine and watch the cooling water spray out of the exhaust - much better flow than before! I've motored for a few hours straight on a couple trips since replacing the mixing elbow and the water temperature gauge is rock solid! No more overheating and the project cost less than one "boat unit" (\$795 to be exact). I guess I learned two valuable lessons from this project: 1) It sure is great to have a friend with as much maintenance experience as Kevin, and 2) Advise from the C320 discussion group is usually spot on." -Mark Cole, boatnboot@me.com

CATALINA 320 INTERNATIONAL ASSOCIATION

(continued from previous page)

Fuel Tank Replacement

Spring 2018 as I was readying Affinity for her spring launch, I noticed a small amount of diesel underneath the mattress in the aft cabin. This was a project that showed me the benefit of our 320 Association Discussion board and Owner's Gallery. Through some research, I learned that many other owners have undertaken this project and I suspect many other's will have to in the future, so have decided to share not only my experience, but the experience of other's who have done this and posted on the 320 discussion board.

The first step to removing the fuel tank is gaining access to the tank. Fortunately, Affinity does not have air conditioning, so my starboard locker is used for storage. Once the items were removed, I was able to remove the starboard locker shelf. There are numerous screws holding it down, but once removed the shelf can easily be removed from the locker, exposing the top of the tank. With the fuel tank exposed, it was time to disconnect the wires and hoses from the top of the tank and then also remove the strap which holds the tank down. The hardest part of this step is fitting into the space. I crawled through the hatch in the aft cabin to get access to the tank and hoses. Once the fuel hoses were removed, I purchased a simple hand fuel pump and four, 5 gallon diesel cans and removed the fuel from the tank.





Based on information I gleaned from Jeff Hare's owner gallery and 320 discussion posts on fuel tank removal, I was able to remove the fuel tank easily through the aft cabin access provided that the door and frame are removed. With the tank off the boat, I was able to remove the rubber strips from the bottom to be used on the new tank.

I purchased my new tank directly from Ezell Industries in Perry, Florida. The cost of the tank was much cheaper than ordering from Catalina Direct. The cost was approximately \$375 plus shipping and it took approximately 2 weeks for the tank to arrive. Prior to installing the new tank, I attached the rubber strips to the bottom on the tank with duct tape and moved it into the starboard locker through the aft cabin.

Once in the locker, I used the strap to secure the tank and reattached the







hoses and wires and the tank was ready to fill. I used the fuel which I had siphoned earlier, passing it through a filter as I put it back into the tank and after confirming there was no leak, Affinity was ready for launch day. The project cost approximately \$475 and took me approximately 6 hours to complete.

One drawback to my procedure is that the fuel tank does not have an inspection port: The tank from Catalina Direct does have one if that is important to you. You could also see if Ezell would put one in the tank, since they fabricate it after you have accepted the plans. I found this to be a relatively easy project to complete especially after spending time on the c320 discussion board and owner's galleries. Hopefully other owners will find this procedure useful in the future.) **–Jason Reynolds**, Affinity #68

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CATALINA 30/309 INTERNATIONAL ASSOCIATION

Access to the Transom Boarding Ladder



C30/309 Association Technical Editor Michael Dupin

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

Gaining access to the transom boarding ladder has always been a test of human flexibility. The more senior the crew, the more daunting it becomes. Older C30's had a single rail pushpit/taffrail/stern rail/ et-al which requires one to either stoop under or climb over the rail; either way sucks when you get past

a certain age or physical condition. My queen of the seas, "Paradise", is one of those single rail types and I am one of those slightly pooped senior sailors so a rail modification became the goal.

The modification was a fairly straight forward and simple one. If you're comfortable with tools and not too squeamish about cutting up parts of your boat then the mod is easy and can be done in a couple of hours and with minimum expense.

What parts and tools are required for the mod? Your choice of parts and tools may be different but here is what I used:

PARTS TOOLS

- 4 Sea Dog Top Cap Fittings (p/n 270101-1) Hacksaw or Sabersaw
- 4 ¼" x 1 ¾" x 20 ss Pan Head machine screws 1/8" Carbide drill bit
- 1 ¼" x 1" x 20 ss Pan Head machine screw ¼" Carbide drill bit
- 4 ¼" x 20 ss Cap Nuts Electric Drill (not Dremel types)
- $1 \frac{1}{4}$ " x 20 ss Nylock nut 1- 7/16" wrench
- $4 \frac{1}{4}$ " ss Lock washers 1- #2 Philips screwdriver
- 2 1/16" Nicopress sleeves Small Swaging tool
- 1 ¼" x ½" Quick release pin Center punch
- 18" ss Seizing wire

Estimated total parts price is \$75.00 – your costs may vary depending on your source of parts and/or parts already on hand in your deep locker.

(continued on next page)



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CATALINA 30/309 INTERNATIONAL ASSOCIATION

(continued from previous page)

The process of modifying the rail is as follows after unloading the rail - remove dingys/outboards:

- 1) From the vertical bars, measure 2 inches inboard and mark.
- 2) Cut through the top rail at the marks. Deburr all the cut edges.
- 3) Install the top caps on the top rail stubs. Use the set screws to hold in position.
- 4) Install a top cap on one end of the removed bar. Use the set screw to hold in position.
- 5) Fasten the bar to one side of the stern rail with either a machine screw or the Release Pin.
- 6) Connect the remaining Top Cap to the other side of the stern rail with a machine screw.
- 7) Swing the removed bar into position next to the Top Cap in 6 above. Mark the bar where the open end of the Top Cap touches the bar. From this mark, measure about 1" toward the fastened end of the Top Cap and mark the bar. To be more precise here measure the depth of the open end of the Top Cap and use this measurement to make the mark. Cut the bar at this mark and fit the Top Cap, from 6 above, to the bar. If measured and cut accurately the bar will be a neat fit in the top rail opening.
- 8) Check the installation and adjust the Top Caps to eliminate any binding at the hinge point and at the Release Pin. Tighten all of the set screws to hold the parts in the correct positions.
- 9) Mark the Top Caps ½" in from the open end. These marks are where you will drill holes for the machine screws. My preference is to install the screws vertically with the cap nut on the bottom as a safety measure-if the cap nut comes off, the screw will not fall out.
- 10) Stainless steel isn't difficult to drill IF you have good bits, hence the carbide tip drills, and IF you drill slowly. Using a dull bit and drilling at high speed will cause the metal to work harden and that will bring out unseemly vocabulary. I have good luck by drilling pilot holes with the 1/8" bit then finishing with the 1/4" bit. Use thin oil at the drill site.
- 11) Install the machine screws, lock washers, and cap nuts and the job is about finished. Install the bar (now gate) to the rail with the Quick Release pin and the 1" machine Screw/Nylock nut (use of the Nylock nut allows for adjusting the tension on the gate). Install the gate to the cockpit side of the Top Cap fittings. If the Quick Release pin doesn't lock correctly and/or the Nylock nut comes off the gate won't open if bumped against.
- 12) Use the seizing wire to secure the Release Pin to the top rail. This to prevent losing it or dropping into the brinny deep (nothing like watching \$30.00 parts going overboard.

The accompanying photos show the relationship of the parts. They also show the use of a Velcro strap to retain the boarding ladder in the stowed position and also to hold the bar in the open position.

A final note: The stern rail will be weakened when the gate is open! Close the gate, pull up the boarding ladder, then pull up the dingy/outboard engine.

Life aboard is so much nicer when you and/or your significant other or guests can use the boarding ladder without employing gymnastics and harsh language. Fair Winds to all... **-Dennis**, C30/873







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CATALINA 28 INTERNATIONAL ASSOCIATION

Spring Chores and Commissioning

As many of you know Yahoo has chosen to reduce amenities towards groups of this kind, mostly in its historic data and photos. We were on Yahoo for a number of years as has many groups

C28 Association Technical Editor Ken Cox in this magazine have been. Last November we had to find a new format due to this change. So we have

moved to groups.io and can be found under the heading of Catalina28@ groups.io While the Yahoo group is still active, it was only left up to redirect potential searchers, new owners etc., to relocate them to the new group. We do thank Yahoo for its service for the many years we were able to use it.

Always when I assemble this for submission I have to try and think 90 days into the future and what will be relevant for that time. For some of you, the weather just gets a little warmer, for others we are digging out from various depths of snow and ice. So I have tried to assemble from various e-mail of the old group that I have saved I hope you find the topics relevant to your spring chores and commissioning.

Batteries seem to come early on the list as their readiness for the season. Many take them out and home for a winter of charging, some use solar panels to keep them topped off on the boat. Some permanently on shore power use a timer. Personally I am a bit more Spartan, I charge them in the fall, give a quick load test in the fall, top off with a good charge if they pass and move on. I leave them on the boat as I leave my boat in the water and they can operated the bilge pump should it be needed and I check it routinely.

Chargers can be as diverse as our boats, depending on battery type, number of banks etc. Cruisers with larger banks of golf cart or deep cycle batteries with an independent bank for starting need a charger that may have a higher output and capable of servicing both types of batteries. For those with AGM or other newer styles, they need a charger that can optimize the needs of those types of batteries as well. So are you well matched for what you have in operation? Do you know where your charger is located? Where and how the

wires are run? Do you have fuses in the charging lines?

Shore Power: Don't forget to check out this often overlooked piece of equipment. Look at both ends of the cable, are the pins tight and clean? Are the female connectors elongated and discolored? Both are warning signs. Look at the terminal in the boat, are they distorted, do you have a good firm fit? Ring still tighten up well, gasket in good shape? Look also at the back of the plug in the boat for corrosion or discolored wires, again items that need tending to. Do not assume as I did once that just because the breaker is off that it is dead. I blew the end off of a very expensive knife cleaning a connection. They make a tool the size of a sharpie that fits in your pocket that you can place into a wall plug or lay against the wire and if it glows the wire is hot. They cost about \$15 and can save your life. What about the connector on the dock, don't forget to check this also as it can burn up your power cord in short order. Any discoloration needs further inspection as the early sign that it is. Once it starts to discolor it will deteriorate at a rapid rate.

Water Tanks, always need a good freshening up in the spring. However I would start with a good inspection of all of the hoses, if they have dark growth inside them I would recommend their replacement for starters as well as a good cleaning of the filter screen. It would even be a good time to wash all of the deck water inlets with soap and water and even bleach. You can of course give it a good fresh water rinse and even a good chlorine shock treatment. Ben Begani on our group gave a suggestion on our chat group about a product used in the brewing industry by his son, added to hot fresh water it can provide a pristine set of tanks and lines. It is longer than what I have room left for but can be found in our achieves on the new website. Ray on Tsuru C-28 #191 also listed a couple of websites that provide guidelines, The World Health Organization, as well as the EPA, both give sanitizing suggestions as well as on Catalina Direct. All are good resources and I encourage you to develop your own process.

Other items to not overlook, check those halyard pulley's before you step the mast, as well as all mast lights. Change the fuel filters if you didn't in the fall(spring is better IMHO), tune the rig and do a good overall check of everything. I know you all have your own commissioning process for your boat I have just tried to mention a few things that are often overlooked.

That's all the room I have this quarter, hope this has helped you fix it fast. **–Ken Cox**, kenneth_cox@sbcqlobal.net

The C28 is on groups.io

We can be found under the heading of Catalina28@groups.io



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**

jblyth2@mindspring.com #1, Santa Monica Bay, CA

smwyc06@gmail.com #2, Long Beach mbierei@pirnie.com

#3, Chesapeake Bay wjhomes@zoominternet.net tjl2000@optonline.net #6. San Diego dmumby3@cox.net **#7, Lake Ontario**

> crew@ceibaone.ca #8, New Jersey Coast calypso36@comcast.net

#4, Puget Sound

#5, Long Island Sound

rodi2@msn.com

#9, San Francisco Bay jennai1@sbcglobal.net #10, Gold Coast (Ventura & **Channel Islands**) ishapiro@kirkhill-ta.com

#12, Punta Gorda, Florida jblyth2@mindspring.com #14, Low Country (S.

Carolina) jblyth2@mindspring.com #15, Lake Texoma jblyth2@mindspring.com

#16, Texas Coast jblyth2@mindspring.com

#17, The Netherlands e.scheffelaar@marineobjects.nl **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

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

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

#1 San Francisco Bay, CA www.southbeachyachtclub.org #2 Marina Del Ray, CA 800.501.1378 #3 Long Island, NY http://www.l-y-n-c-h.com/IC30F3 #4 Lake Erie, OH jpaint412@msn.com

#6 Seattle. WA Tacoma & South Sound, WA http://home.earthlink.net/~catss #7 Tampa/St. Petersburg, FL AV8RSailor@verizon.net

#8 Long Beach, CA http://www.cat30fleet8.com #10 Galveston Bay www.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

#35 Southwest Florida (see Fleet #7) #36 Lake Perry, KS

913.677.3143 #37 Vancouver Island, BC gm@bonnor.com

#38 West Michigan, MI http://www.lmca.com/ #40 Lake Pleasant, AZ 602.867.0650

#42 Cheney Reservoir, KS thegreenwoods@sbcglobal.net #44 Santa Cruz, CA clubmanager@scyc.org

#45 Columbia, SC szymanskim@msn.com #46 Grapevine Lake, TX atanua.sail@gmail.com **South Shore Yacht Club,**

Milwaukee, WI

http://2011ic30anationalregatta.

Other regional C30 Fleets

CRACA Columbia River, OR celtic-myst@attbi.com **KLACA** Kerr Lake doncourtney1@aol.com **OSCA Rhode Island** www.oscafleet.org **SBCYA Long Island, NY** www.sbcyc.org **CSMB Santa Monica Bay** 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.

CATALINA 400/445 INTERNATIONAL ASSOCIATION

The Never-Ending March toward 'Ever-Present Change'



C400/445 Commodore Frank Falcone

We've all heard the only thing that we can be sure of (other than death & taxes) is 'change'! Change can always be counted on to be there, no matter what. That's why I don't want to look in the mirror anymore.

Never in human

history has change been so ever present as during the past 2 decades. Are you checking your emails on your cell phone while reading this? Can we even imagine a world without our cell phones and personal computers? My grandchildren ask, with astonishing minds, "Grandpop, how could you have possibly even existed the 1950s and 1960s without a computer"?

Anyway, our Catalina 400/445 International Association is not exempt from change either...lots of changes are going on here as well!

Outgoing Vice Commodore:

Our Association Vice Commodore, Rich Miller, has decided to conclude his service. It's been a real pleasure working with Rich over these past years and, on behalf of all of us, I want to express my deepest thanks to Rich and his wife, Claire, for their outstanding service, participation, and cooperation. Rich & Claire sail the Chesapeake Bay aboard their Catalina 400 Viewfinder and we hope to see them 'out there' and to sail and cruise with them in the future. The Vice Commodore's position is now open. Please let me know, via email, if you'd like to be considered for this position.

Outgoing Technical Editor:

Our C400 Technical Editor, Olav Pedersen olavp@gmail.com is moving on and we want to express our deepest thanks to Olav for his OUTSTANDING work in sharing a wide range of his own articles as well as those of others regarding the varied technical aspects of our terrific boats. Olav started sailing at the age of 10 on a Cal 28 then moved up to an Islander 29, a Columbia 36, a Catalina 34 and then to Midnight Sun, his Catalina 400, which he sailed for

more than 10 years. He's now thinking (dare I say it) of a future which could possibly include a vessel that does not use those big white fluffy things as a means of propulsion. Olav, we wish you fair winds, calm seas and a future filled with smiles, adventures and happiness!

Incoming Technical Editor:

Not only did Olav do an OUT-STANDING job as our Association's Technical Editor, he also found us his replacement. Our new Technical Editor for C400 hulls is Tom Sokoloski (tomsoko@gmail.com). Tom was introduced to the boating world at the age of 5 when his parents purchased an old wooden cabin cruiser. He built a Sailfish in 8th grade. Then, after college, Tom purchased a Venture 21, then a Grampian 26, then a Catalina 30 and then a Catalina 36. He and his family now own and sail a Catalina 400, Juniper. In addition to sailing, Tom likes to say that he truly enjoys 'messing about in boats'! Welcome to the extra -ordinary and important position of Technical Editor, Tom! And, we look forward to working and perhaps, sailing with you in the future! If any of you wish to send C400 (or C445) technical articles into MAINSHEET for publication, please email them to Tom for consideration and editing! NOTE: The Tech Editor for C445 Hulls position is open - email me if you would like to volunteer for this position.

Discussion Forum:

Our quasi-Association 'Yahoo Group', which many of us used as a means to share information about our boats has now been eliminated and all content from that group was deleted at the end of December, 2019. However, the C400/445 International Association has decided to pay an annual fee for us all to participate in a new discussion forum group. It's https:// catalina400-445.groups.io/g/C400. Our C445 colleagues have moved over to a Google Group. However, we'll leave a 'placeholder' open for C445's, if individual C445 owners/sailors would like to join our group. Here are the steps required to 'sign up' to join the new group.

- Enter https://catalina400-445. groups.io/g/C400 into your web browser of choice.
- Click 'Apply for Membership In This Group'
- Enter your email address which will be used for group communications as well as for 'logging in'.
- Once you register with your email address, check your email inbox for a confirmation email.
- Click the 'Confirm Account' link.
- Assign a password.
- Wait for a Group Moderator to approve your request. This approval process should take no more than approximately 1 day.

Discussion Group Migration:

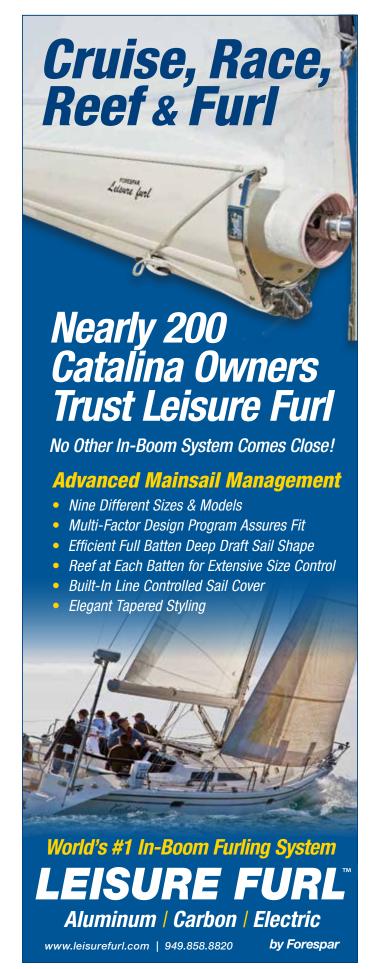
Our Association wishes to express its deepest thanks to Brian Theodore, 'Website Superstar Extra-Ordinary' for his excellent work in migrating our Yahoos Group to the 'io' Group. It gives me a headache just thinking about how to do this! Brian's voluntary work here was timely, essential, professional and 'totally needed' especially by us 'not so super', website users. Brian has been sailing for most of his life in and around the waters of San Francisco. He now sails Madison. his 2003 Catalina 400 Mark II. He's crewed aboard a Swan 48 for the Caribbean 600 Ocean Race and is planning to sail to Cabo San Lucas for the winter 2020 season. Thanks again, Brian!

Data Management:

Seth Martin is now the new Data Manager for our Association. Seth has been in this position for a while now, is very proficient, is no stranger to data management and is doing an excellent job for us. This is an essential and important aspect of managing our Association and Seth completes his work smoothly, efficiently and on time! Thanks so much, Seth!

Association Expansion:

There is some interest among our Catalina 42 and 425 sailing colleagues to, possibly, merge their Association with our Association. I've asked for input from our Association Officers and, thus far, there seems to be no reason to not move forward with this idea. I'm



CATALINA 400/445 INTERNATIONAL ASSOCIATION

(continued from previous page)

in support of this idea as well, if there seems to be general and widespread support. However, we look forward to hearing from more of you, especially from our Catalina 42 and Catalina 425 sailing colleagues, regarding this proposed idea. We'll wait for your input before moving forward. Please feel free to send me emails at frank.falcone@villanova.edu with your thoughts.

Those Remaining:

Sometimes, when we get caught up in the throws of everpresent change, we tend to forget 'those remaining'. From that perspective, I want to express my deepest thanks to Martha Bliss, our Association Secretary; to Dan Bliss, Martha's husband, who edits our articles before sending them on to Catalina for publication in MAINSHEET (Martha and Dan sail Brunelle out of Rock Hall, MD), and to Dave Cherry, our Association Treasurer, who so very effectively, quietly and efficiently manages our Association's funds (Dave has his C-400 JoySea for sale). These individuals represent the backbone of our Catalina 400/445 International Association and I'm so very fortunate to have the opportunity to work with them.

Well, that's it for now. If change is ever-present, then more is probably on the way. Change, as we all know, is difficult to accept at times. However, we all reach, learn, grow, experience and expand our minds through change. Ever-present as it is, I think that managed change is always a 'good thing'!looking forward to your input! **-Frank Falcone**, Silver Eagle, Catalina 400 Mk. II

CATALINA 36/375 INTERNATIONAL ASSOCIATION

Welcome New Commodore



C36/375 Commodore Les Troyer As I write this it's a week before Christmas, there is a roaring fine in the wood stove and the room is toasty warm. I am very honored to be offered the opportunity to guide the C36/375 organization into the future. It is especially exciting because of the vibrant volunteers that are generating a real sense of community online and face to face. I plan on continuing the role of Tech Editor for the Pre-MK2 C36's, until a replacement is found. Last year the sailing wasn't the best, but cruising, meeting with

other Catalina owners of all models was very rewarding. I'm looking forward to the year ahead and hope to meet many of the 36/375 Members. There are so many people I'd like to acknowledge, I'm sure I'll miss someone important if I try to enumerate them all so I'm going to spread out the introductions and accolades to future issues. Past Commodores and especially Laura Olsen, have agreed to help guide me as I work into this new position.

We are in desperate need for a Web Master, if you or someone you know is interested, please contact me. **–Les Troyer**, leslie@e-troyer.com

CATALINA 34/355 INTERNATIONAL ASSOCIATION

Secretary's Report



C34/355 Association Secretary Stu Jackson

C34IA Membership dropped a bit to 491 from the 493 last quarter, and includes 29 C355s.

Congratulations to Les Troyer, the new Commodore of the C36/C375 International Association. I've know Les for a number of years on the internet, and

had the pleasure of first meeting him in Roche Harbor at the yearly Catalina Rendezvous in May 2017. We hit it off and have cruised together a few times, in addition to attending the two Rendezvous around here each year. Les has made significant mechanical and electrical enhancements to his boat, and has written extensively on marine electronics. He was the C36 Mark I technical editor for the last few years.

He also makes the best brisket this side of the Mississippi!

A few years ago I received an email from John Krezoski (#1166, Carina). He's from Wisconsin and visits his kids who moved to Victoria. We've since gotten together for lunch a number of times and became friends. On September 20th I was motoring back from a few enjoyable nights at my favorite local anchorage when I experienced fuel starvation issues for the first time in my boat. Of course, it happened at the narrowest part of a tricky tidal gate at Sansum Narrows. I had lunch with John ten days later and told him about the helpful tow I got from a passing 43 foot sailboat (Dulce Sucao, Victoria, BC) that I hailed down. They brought me to the anchorage outside my marina, from where I called the marina tow boat the next morning to get me back to my slip.

John visited again the first week in December and during lunch he

calmly reached into his jacket pocket and extracted a brand new Facet fuel pump! As I wrote to him, I was "Gobsmacked!" He replied: "...I actually derived great pleasure in figuring out which pump to get and in "smuggling" it over the border. Besides, now I know what to get for my boat, when the time arrives (maybe I should get a spare even before the time arrives!). ...I really don't expect reimbursement. It's a gift. Besides, I'd rather go sailing! (If I can ever be there when the weather is good!!)"

The thoughtfulness and generosity of fellow boaters is overwhelming and truly appreciated. I can't wait for John to return in good weather so I can take him out and share our fantastic cruising area.

Trust you are planning for the new 2020 season. And, as always, many thanks from all of us to all of you for supporting the C34IA. **-Stu Jackson**

CATALINA 320 INTERNATIONAL ASSOCIATION

Sailing Romance



Commodore David Allred

As I sit here writing this article, it is mid-November, just about the end of our sailing season on the Chesapeake. As you read what I have written, it is probably nearing Spring with a new sailing season getting close and Romance getting

ready to abandon her slot on the hard in our marina yard. The yearly cycle has advanced another ninety degrees. That gives me pause to think about that yearly cycle and how many of them I have enjoyed as a Catalina 320 owner.

Last summer, I went to the office at our marina to discuss an error in a bill I had received. The office manager called up my account on his computer and began to scroll through the pages. After a bit, he said, "You have been here a really long time. You are one of our

oldest slip holders." I think he meant by length of tenancy, but years of age is not completely out of the question. He was right on both accounts. My wife and I first visited the marina almost 25 years ago. One of our daughters accompanied us. She was 17 and about to begin her senior year in high school. She commented that the best thing about the marina was how cute the life guards were at the swimming pool. Today, she has put a professional career on indefinite hold while she and her husband raise four children. I imagine the life guards' appearance would carry significantly less weight. And, that is not the only change.

Several years ago, my wife and I swapped the challenging and rewarding careers we had when we first visited the marina for the joys of retirement. We moved from the close-in suburbs of Washington D.C. to a much more rural area near the Chesapeake Bay. That means that we now listen to the screech

of great blue herons or the chirps of ospreys rather than the wheezing of the number 30 bus every thirty minutes as it heads to and from the Metro while we sit on our back porch drinking a gin and tonic before dinner. The intervening years years since our first marina visit have been good and a constant for all those years has been our pleasure in owning and sailing a Catalina sailboat. Although we started with a Catalina 30, for the last twenty years Romance, our Catalina 320, has occupied the same slip at the marina.

One of the most rewarding aspects of sailing Romance has been our membership in the Catalina 320 International Association and the wealth of advice and assistance we have received from the other members. principally through the website and forum. The depth and diversity of knowledge available is truly amazing. I have attempted and successfully completed many projects that I never would have

CATALINA 320 INTERNATIONAL ASSOCIATION

(continued from previous page)

considered had I not had access to the many years of experience other Catalina 320 owners have so generously shared with our members. I have also enjoyed reading the continuing saga of some of the regular participants on the forum as they have described their adventures and their home ports. Perhaps even better is seeing new owners and members come to our association and begin to share the Catalina 320 experience. As the years pass, I hope each of those new members, as well as all the others, get as much from our association as I do. Now, I am headed to the marina to begin getting Romance ready for another year.. -David Allred

Passing of the Editor's Scribe



C320 Association Technical Editor Mark Cole

Rod Boer (Odyssey #688, Rock Hall, MD) has filler a few different volunteer roles since attending his first C320 Rendezvous in 2000. According to Rod, he started by "taking charge of the computer aspects...",

but was soon "rescued by Jeff Hare." Rod then bounced back and forth from Technical Editor to Association Editor and spent the last few years as the Association Editor, working to get the submitted articles ready to send to the magazine publisher. Rod has decided to step down from the editor's position but our C320 Association was lucky enough to have a pool of two Technical Editors to step in and fill the void Rod left.

Mark Cole (Fiddler's Green #8, Tacoma, WA) has volunteered to move into the Association Editor position and Jason Reynolds (Affinity #68, Marion, MA) will do the Technical Editor job. Please see "Share Your Stories with Us!" near the front of this magazine or the "Officers" tab on the C320 web page (c320. org) for contact information for Mark and Jason.

Speaking of contacting your C320 editors, please consider submitting either ideas for an article, or an article you have written. Not completely comfortable with your writing skills? Mark and Jason are more than happy to help with the writing process. Just contact us!

And THANKS, ROD, for all the work you did in making *Mainsheet* such a valuable publication!. **-Mark Cole**

CATALINA 30/309 INTERNATIONAL ASSOCIATION

Once in a Lifetime Shot



C30/309 Association Editor Michael Dupin

I hope you enjoyed reading about the Nationals in the last issue and thank you Jim Holder for not breaking the three sub-articles and keeping these as one. Speaking of Nationals, fresh off the press: the next National Regatta will

be held at the South Shore Yacht Club in Milwaukee, WI during the weekend of August 15th. We will publish more details in the Groups.IO and in the next issue of *Mainsheet*. Stay tuned and participate if you're in the area!

This week's technical article is about getting in and out of the C30 from the transom. Compared to newer designs with very open sterns and swim platform large enough to hold a dinghy, getting in and out of the transom of older C30s is a pain. Adding plastic steps on the top of the one-inch ladder tube helps by making it more comfortable on bare feet but there is still (at

least one, if not two) bars to climb before making it back into the cockpit. In this issue, we have a great article from Dennis Jackson with Paradise (#873) on how to open the transom. A great modification in my humble opinion, the newer C30s with split taffrail are a proof that even Catalina's boat designers thought so too!

For the travel section, we have a beautiful story similar to the one by David Crosby in the C250 section of last issue: bigger trips on smaller boats. In this issue, Jamie Hart relates her trip sailing to Cuba (yes, Cuba on a C30!) with awesome pictures, a great prologue of Nootka doing a great diagonal (WA->FL) and at a tail of night sailing none of us want to replicate. Incidentally, Nootka's great diagonal reminded me that my own C30 did another great diagonal: Wind Seeker is now in New England but apparently started in California, judging from the rigging (mast on a pivot and an electric winch) topped with a Santa Cruz Yacht Club



sticker still on her window. Those are quite well travelled boats!

Finally, here is 'a once in a lifetime shot' that generated quite a lot of buzz in New England last September (e.g. Boston Globe). I'd like to stress that the photographer denies any photoshoping, he was just at the right place at the right moment. And yes, it seems to be a C30 in the background! Thank you Mike Lemery for allowing us to reproduce his picture for this issue, for the reading pleasure of our fellow C30 enthusiasts! The picture is available for purchase at MikeLemery.com. –Michael Dupin, dupin. catalina30@yahoo.com

CATALINA 22 NATIONAL ASSOCIATION

2020 Catalina 22 National Championship Regatta

Catalina 22 National Sailing Association Vice Commodore Brent Purcell, Catalina 22 Fleet 77 and the Fort Walton Yacht Club are pleased



C22 Association Editor Rich Fox

to announce the 2020 Catalina 22 National Championship Regatta will be held the week of June 13-18 in Fort Walton Beach, Florida. The Notice of Race is now available on the Association's website at www.catalina22.org.

There will be three fleets. The Gold Fleet is the championship fleet and the winner is named the Catalina 22 National Champion. The Silver Fleet is for competitors with less racing experience and who have not won a Catalina 22

regional regatta or national regatta. The Spinnaker Fleet provides an additional opportunity for competitors to test their skills with a spinnaker.

Check-in, registration and measurement begins on Saturday, June 13 at the Fort Walton Yacht Club. On Sunday evening, the Association will host its annual meeting and regatta dinner. Racing will take place on Monday through Thursday, and close with the awards ceremony on Thursday evening.

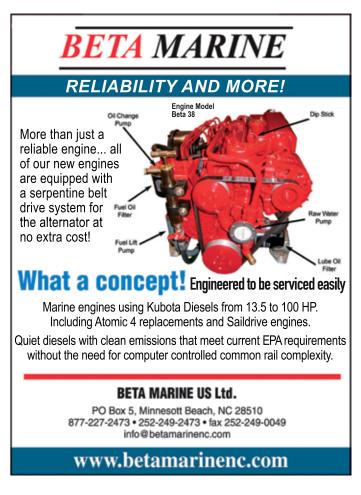
If you are interested in competing, you still have four months to prep your crew and get your boat ready for a week of competitive racing and shoreside fun and camaraderie.

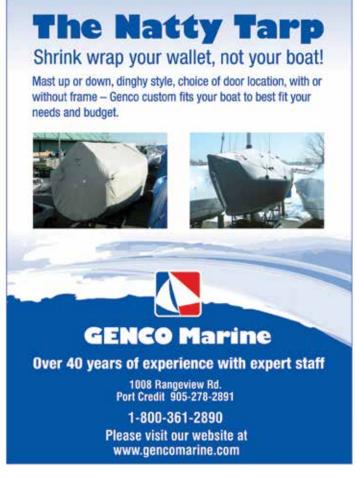
For over twenty years, the Catalina 22 Fleet 77 and the Fort Walton Yacht Club have also Northern Gulf Coast Cruise. If you are planning to participate in this year's cruise in mid-May, please visit the Association website for dates and other information you may need to know.

If you have an upcoming Catalina 22 cruise or regatta event that you would like posted on the Association website, please send the information to me by email to c22mainbrace@yahoo.com.

-Rich Fox, rich_fox@yahoo.com

The Notice of Race is now available on the Association's website at www.catalina22.org





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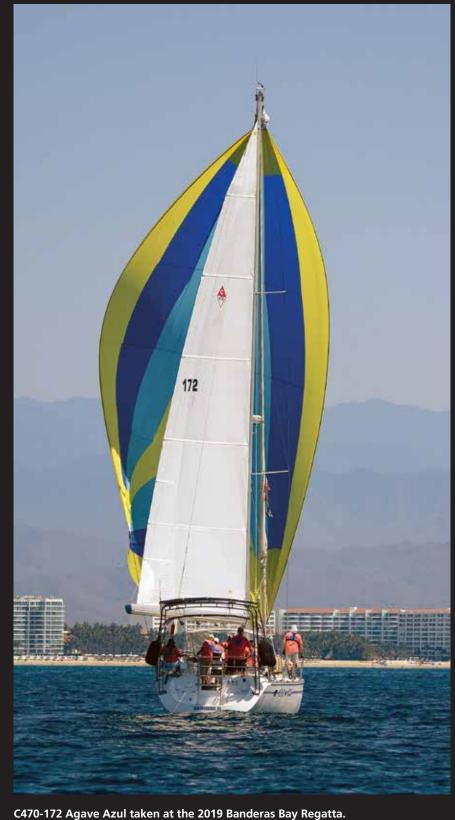
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Advertising

To reserve advertising space contact:

Jim Holder Phone (706) 951-4282 Fax (706) 651-0533 cv.jholder@mainsheet.net

Photo Op



C470-172 Agave Azul taken at the 2019 Banderas Bay Regatta. Photo by John Pounder, JLDigitalMedia

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DD 6-1

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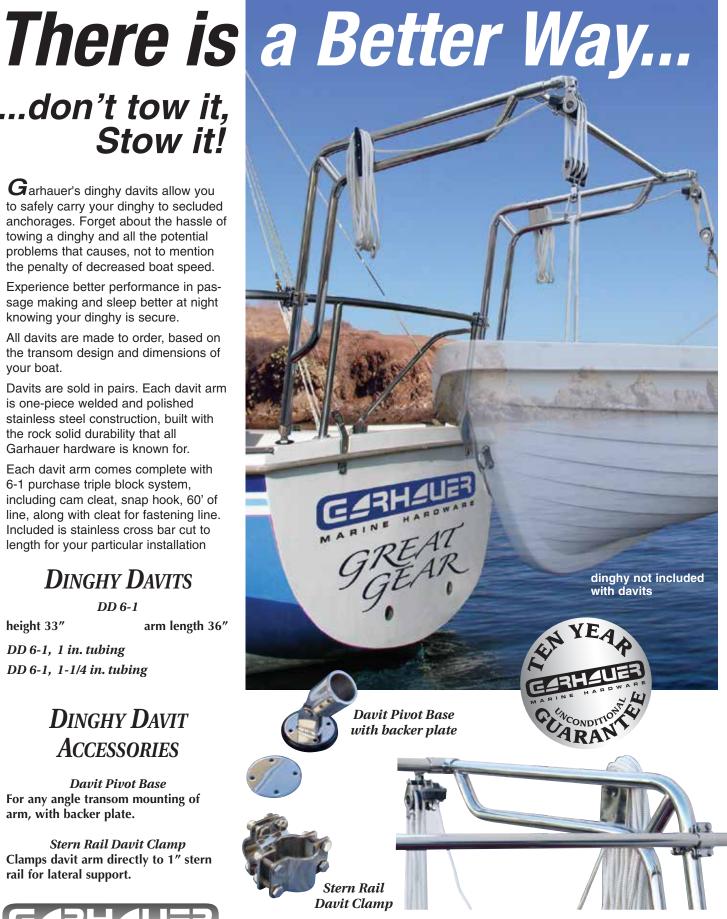
DD 6-1, 1 in. tubing DD 6-1, 1-1/4 in. tubing

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