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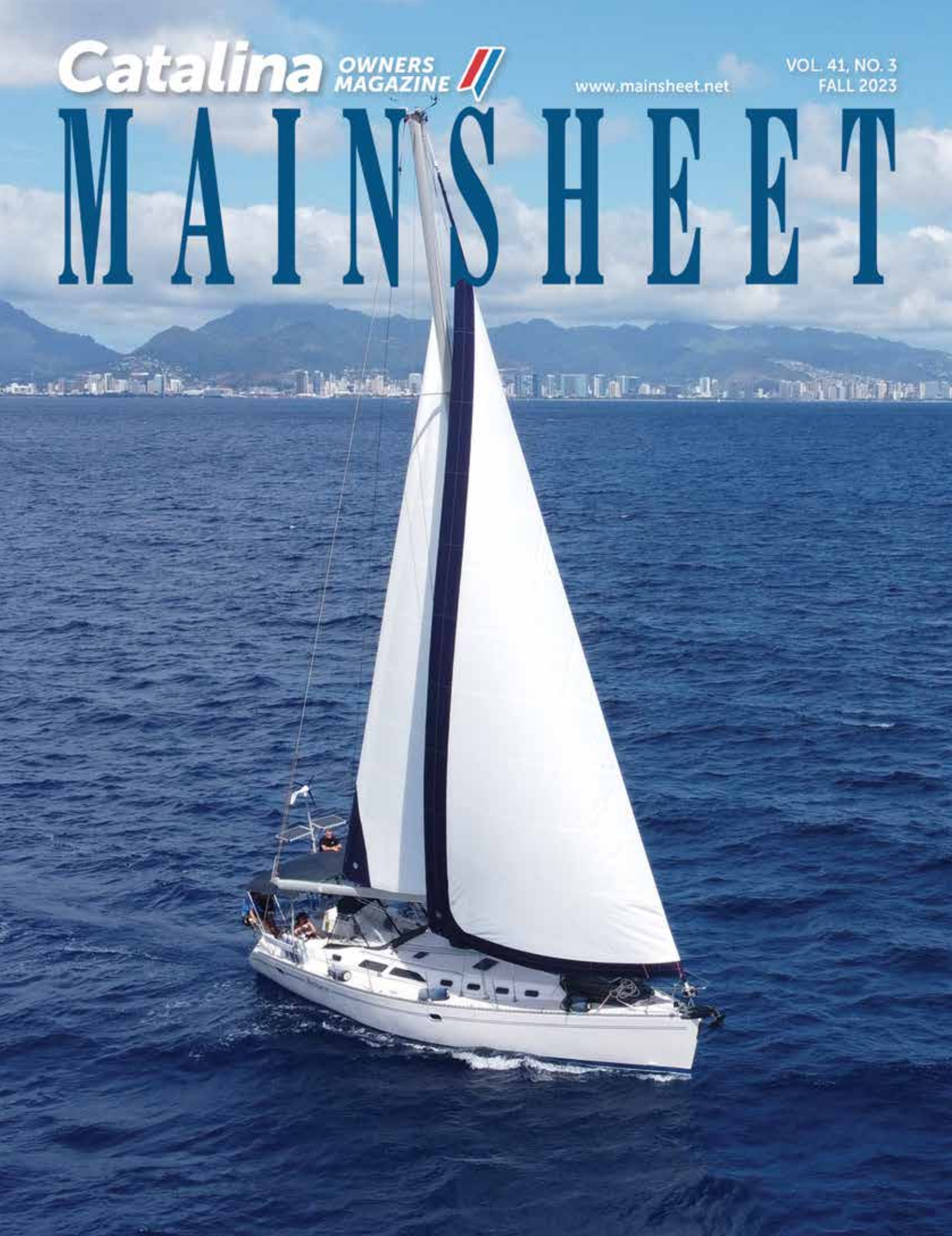
MAINSHEET



MAINSHEET

FALL 2023

Volume 41 • Number 3

COLUMNS:

FEATURES:

TECH NOTES:

ASSOCIATION NEWS:

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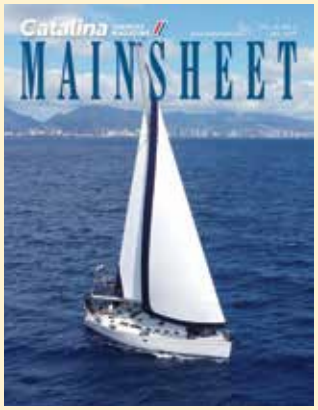
Photo by: H.E. Strozier

Greg Dutka's C470, hull 93 *Arcturus*, offshore with Honolulu in the background, entering the Ka'iwi Channel heading toward Maui, Hawaii.



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EDITORS BARQUE

Life Changes

As the old saying goes, time marches on. September is just around the corner and then there is October. My sailing club winds things down with their famous "Halloween Regatta." People from everywhere come pouring in bringing their big trailers and tents of all sizes. Boats from Sunfish to E Scows (my favorite) come for three days of hard sailing. We usually have somewhere around eighty boats. Naturally there are lots of parties going on with plenty of food, lots of beer, a band and dancing. But the costume parade, with more adults dressed up than children, is always the best. A fun time for everyone.

Well it won't be long before sailing this year will wind down. Time to roll up the sails and put the boat cover back on. However, Carol and I decided to extend being on the water this year. We wanted to try a little different boat activity with a different type of boat. No mast, no sails, and no tiller. It's called a Riverboat. We will be cruising about fifteen days in Europe from Amsterdam to Budapest. I'm sure I will miss not watching out for wind shifts, etc., but it will be nice letting someone else do the worrying.

Life can always get along with a little change.

—Jim Holder, Publisher

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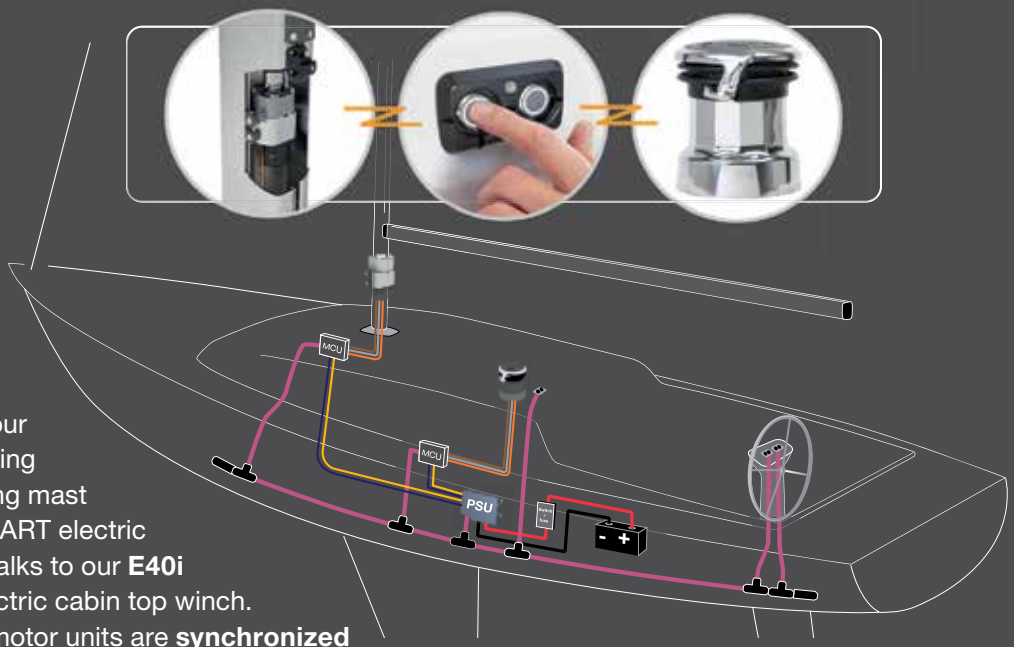

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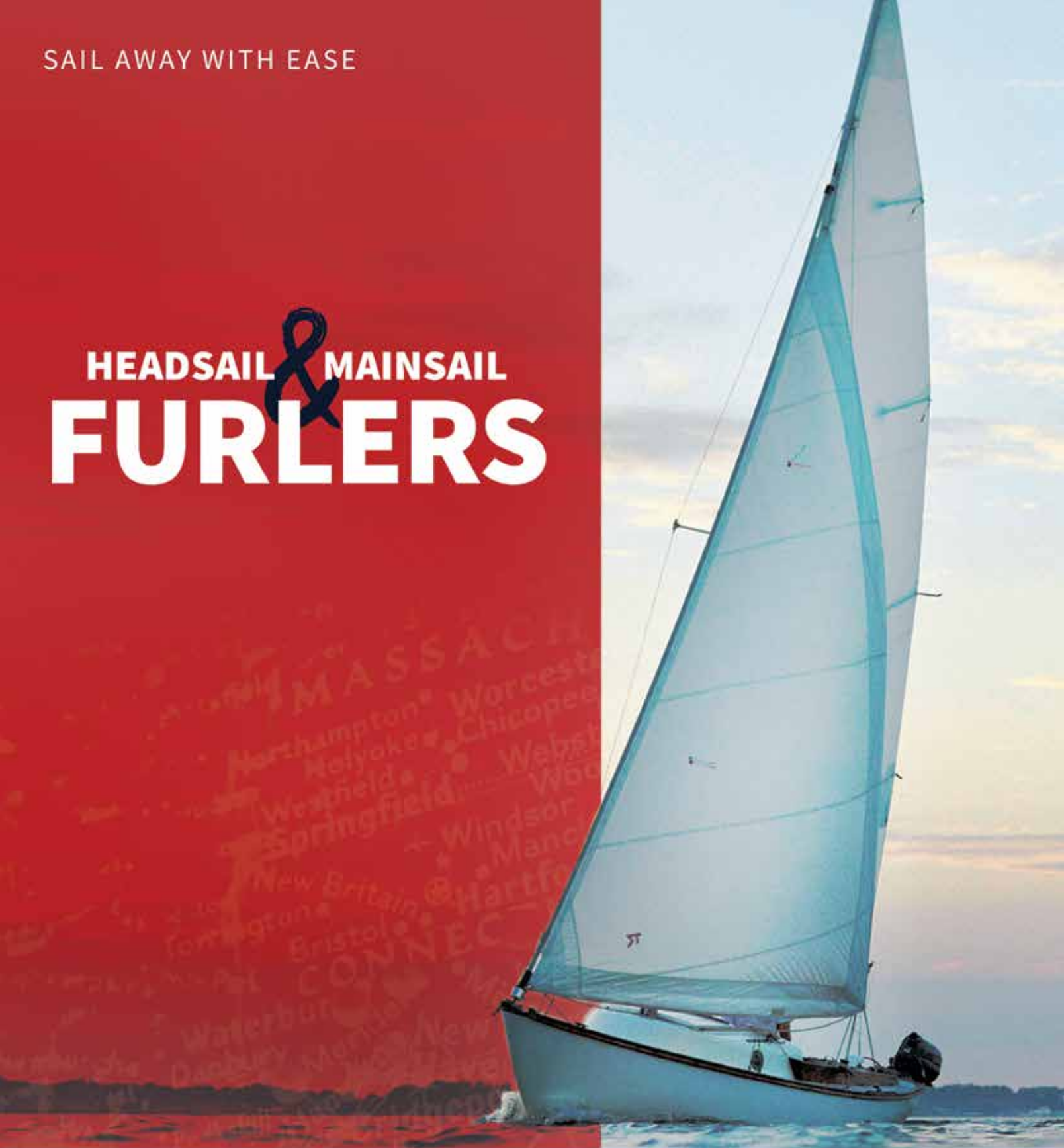

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Change of Course:
Misadventures On The ICW

By Liz Powell • *Hurry Sundown*, CM440 Hull #59

Years ago, I declared Bob and I to be unapologetic weekend Chesapeake Bay sailors. How could we have forgotten that last fall when we were approached to cruise the Intracoastal Waterway (ICW), a 3,000 mile inland waterway that stretches the length of the United States' eastern seaboard? I remember my initial reaction was something along the lines of, "That's a trip that might better be accomplished in an RV." That may have been my last rational thought in the months of planning the trip. And plan we did, researching every detail, except that which turned out to be most important: our air draft.

The captain has long been infatuated with sailing legend, Bob Bitchin' of Latitudes & Attitudes, and we had adopted his mantra, "The difference between an adventure and an ordeal is attitude." So, while we had some trepidation, we took off aboard our CM440, Hurry Sundown, with high hopes of a memorable adventure.

Our planned 6-week voyage started out on a high note with a few easy days southbound from Annapolis. We left familiar waters and proceeded cautiously through the busy waters of Norfolk, Virginia. As we made our approach to the ICW, we prepared to transit the first of many bridges and to experience our first trip through a lock. I was eager to experience the journey! The captain, having only done the trip on a power boat, was looking forward to a different kind of experience.

Unsurprisingly, the first railroad bridge was down, so we circled and waited for the train that never came. The Gilmerton Bridge tender gave us the go ahead with a caution that a tug and barge were headed toward the bridge from the opposite side. He decided abruptly that only one boat could pass, and we hastily turned around and continued to circle in tight quarters while the tug and his 1/4-mile barge with a very long tail cleared the bridge. As we waited, another sailboat joined us. He seemed keen to ride in our cockpit, pushing behind us so tightly that maneuvering between his boat, the bridge, the shallows and now four tugs was quite the challenge. Somehow, we managed to avoid grounding and when the all-clear came, the impatient sailor scurried past us only to be told he'd have a 90-minute wait for the lock. You know what they say about karma. Despite being a little unnerved by the excitement, we traveled on and found the locking experience benign.

We stopped midway down the canal for what was to be a single night. Alas, a weather delay necessitated a 2-day layover before heading to the Dismal Swamp Welcome Center (an oxymoron, eh?). The 9-mile trip provided us with the full Dismal Swamp experience. We never bumped or grounded but did hit some debris along the way. I was at the helm and the captain stood watch as we navigated the multitude of northbound

Meandering through the Dismal Swamp Canal.

CHANGE OF COURSE

(continued from previous page)

boats. Although it was the end of May, we met a lot of snowbirds who had been held up by inclement weather. The canal was busy and so was I, watching the depth meter and never thinking to look up. Suddenly, I heard the captain shouting, "Go left, go left!!" Too late. I took out a good size tree limb. Leaves and branches rained into the cockpit. The winds were brisk, making docking a challenge. We were really looking forward to happy hour.

We were anxious to keep moving, but the weather was most uncooperative. We hadn't had a calm, sunny day in over a week. It was three days until we finally departed the Welcome Center. We made our way down the remainder of the Dismal Swamp Canal and were faced with another bridge that required us to consider our air draft. The charts showed a clearance of 65 feet. Hurry Sundown has a mast height of 62'4", but what about all that "stuff" up top? What is our exact air draft and why didn't we have the foresight to find out before departed on this trip!? With cautious optimism, we coasted beneath the bridge. Looking up, one can never be sure how much room is between you and a bridge, but we didn't hear the tink, tink, tink of instruments scraping, so we shot each other a relieved glance and traveled on. That night, the crew of our buddy boat reluctantly showed us pictures of us below the bridge, and we began to have second thoughts about the rest of the trip.

We made it! We successfully passed under our first 65ft bridge.

We spent a couple of nights in Elizabeth City, North Carolina, delayed again by heavy wind and unsettled seas. I was obsessing on the ICW Cruising Guide (by Bob423) and reading everything I could find about the bridges and water depths ahead of us. The wind had been out of the north for several weeks, which meant that an upcoming bridge, the "dreaded Wilkerson", would likely not afford us the clearance we needed. We would have to wait for a significant weather change to keep going. We heard stories about snowbirds being delayed or turning back as they attempted to cross Albemarle Sound, and we were waking up to pea soup fog most mornings. The trip was turning from adventure to ordeal. We decided to turn towards home.

Weather had delayed many northbound boats, so when we tried to reserve a berth in Coinjock Marina, they said, "Great! You're 19th on the wait list. We'll call if anything opens up." Having made the decision to return home, we were anxious to get started and began researching alternatives so we could get underway. We started the trip home with yet another bridge opening. We rose early to find ourselves surrounded by fog. Fortunately, the fog lifted enough to allow us to move and as luck (or we like to believe, divine intervention) would have it, Coinjock called. We had a place to spend the night! Fog limited our visibility, the channel was narrow, and yet another 65' bridge welcomed us to Coinjock. It was an otherwise uneventful day capped off by another much-anticipated happy hour.

The Pungo Ferry Bridge's reputation rivals the Wilkerson Creek Bridge and was on the next day's itinerary, which was to be a 6-bridge day. At this point, stress was clouding our thinking, and we had taken to doing things that would increase our starboard heel (e.g., fill the main water tank, move heavy items). The prevailing north winds worked in our favor—we had more than enough clearance. The last bridge of the day was Great Bridge, where we played the waiting game with, and navigated around, 10 other boats, two tugs, and a southbound barge. We grabbed the last free dock space between the bridge and the lock with a plan to lock-through early the next day for our trip back to the Chesapeake Bay.

Another foggy morning greeted us

Foggy mornings made for a less-than-ideal navigation experience.

as we prepared for an early departure on a 7-bridge day. One brave catamaran disappeared into the lock at 6 am. We sat and waited. As we enjoyed our morning coffee and entertained ourselves with the VHF announcements, we got some unwelcome news. The Gilmerton Bridge was only opening at 7 am and 5 pm due to maintenance. Our dilemma was whether to stay on the dock and face the same problem the next day or go and anchor in Norfolk in the dark. Later, we heard the bridge was being raised periodically by the maintenance crew. We had a chance for an earlier transit. That's all we needed to hear; we were off!

The Great Bridge lock experience was not as enjoyable as our previous locks. As I carefully navigated into position, an impatient power boater critiqued us over the radio with a "Driving Miss Daisy" reference. I hoped to have a less tense start to the day! We were ready to tackle our final bridges. Within hours, we reached Gilmerton! Later, we settled in Hampton, Virginia, and spent another day waiting out gusty winds.

We anticipated that the last leg of the trip would be uneventful, as we were back in the familiar waters of the Chesapeake Bay. Worryingly, however, fog had been replaced by smoky haze blown south from the Canadian wildfires, reducing visibility. As we approached Point No Point, just past the Potomac River, the skies darkened, and the radar revealed a line of approaching thunderstorms. The rain started, the winds increased, and the seas got angry. Wind speed peaked at 40 knots, a first for us. The captain remained calm, but I confess to being more than a little anxious. Just as quickly as the squall enveloped us, it moved on. The "ordeal" was over and soon we were safely home, vowing never to attempt that route in our CM440 again!

AUTHOR BIO:
Liz and Bob Powell reluctantly gave up their Catalina 350 in 2010 to make room for their growing brood of grandchildren. They have loved every minute aboard Hurry Sundown, a CM440 (hull #59). They are dedicated Chesapeake Bay sailors, believing it to be one of the best cruising grounds in the world. They have chartered throughout the Caribbean and as far away as Tonga, but they are always happiest sharing their boat and the Bay with family and friends.

Bob and Liz toasting to good times afloat.

Waiting for our turn to transit the Great Bridge and its lock.

NEW COLUMN THIS ISSUE!

Fair Winds:
Vellamo's Travels - Part 1

By Traci Ayris • C470 #87

The house was rented, cars and motorbikes sold, and our remaining possessions were finally stowed aboard *Vellamo* (C470 #87). We were almost set to begin our liveaboard life.

In the past year we designed and built a new hard dodger, pulled the mast and replaced the standing rigging. Also added an aircon/heating system, solar panels, and lithium batteries. Our final fortnight was spent anti-fouling the bottom and fitting new clear side panels.

Matt caught COVID the day that he applied the final coat of antifoul. On the afternoon of our departure, he was still isolating and sadly missed out on a fabulous farewell dinner with our sailing mates. At the dock, they tossed us our lines, and waved goodbye as we headed out of our berth at the Cruising Yacht Club of South Australia. Destination: Far North Queensland via Tasmania. Return date: unknown.

Terrific Tassie

Tasmania is an island state of Australia similar in size to West Virginia. With a population of around half a million and 42% of its land protected in national parks and reserves, pristine wilderness is its calling card. "Tassie" enjoys four distinct seasons. By Australian standards, it's a chilly place in winter, but some truly stunning and remote cruising grounds beckon adventurers between December and February.

Lying between 41°S and 45°S, the Southern Ocean low pressure systems that batter the Tasmanian coast are legendary. The 750nm trip that traverses the infamous Bass Strait can be a gruelling slog for shorthanded sailing, so our mate Peter left his boat in Adelaide and hopped aboard to join us. We'd joined Pete to help relocate his boat down the Australian East Coast when the COVID outbreak prevented a planned trip around the world and, while we enjoy sailing as a couple it was great to have him aboard.

Vellamo's route from Adelaide to Tassie

Journey to Hobart

Vellamo is possibly one of the most-travelled C470's around. She was sailed from the US to Australia as Sukha. She was then kitted out for blue water cruising and completed a circumnavigation with previous owner Dale Tournier (see Mainsheet Vol 36 No 4 - Australia to the Seychelles). Since purchasing her in November 2020, we have since added another >10,000nm cruising the SE-E coastline of Australia.

Our first night at sea didn't augur well. Passing Kangaroo Island, the sea state was worse than forecast. In our haste to leave Adelaide, and with Matt still recovering from COVID, a few checks were overlooked. In >4m sloppy seas, a few last-minute additions, not stowed as well as they could have been were thrown around below. Green waves pounding the foredeck found a tiny patch of hatch cover that had managed to compromise the seal of our forward head hatch. While crouching down to sponge up the ingress, I was thrown to starboard, causing the lower drawer under the pullman to fly out, land on my foot and break a toe. Not a great start, but from there it only got better.

Our intention was to stage the jump across Bass Strait from Portland on the southern mainland, but our passage planning is always flexible. When a fast-moving low appeared in the Southern Ocean, we made the decision to not tackle the unforgiving

Greeted by a Wineglass Bay local

Gap between Tasman Island and Tassie

west coast of Tasmania, but instead sail straight through and seek shelter among the islands in the NW of Bass Strait. We arrived at Hunter Island just as the front arrived and sheltered for three days before the quick hop along north coast of Tasmania, stopping at Stanley, Devonport and an overnight in the Tamar River. From there it was another hop around the NE corner and then sailing in more benign conditions down Tassie's east coast.

Matt was scheduled to fly out of Hobart on Christmas Day to join a racing crew for the Sydney-Hobart race so we didn't have as much time as we would have liked to explore the east coast. Highlights were Wineglass Bay and shooting "The Gap' of massive dolerite columns between Tasmania and Tasman Island (video on @ SV*Vellamo* Facebook Page). We had some fun dodging >25kt bullets coming over the top of the cliffs with Peter on headsail, me ready to dump the main and Matt having some fun on the wheel.

We journeyed up the Derwent River to Hobart, Tasmania's capital city. After parking *Vellamo* at the Royal Yacht Club of Tasmania we spent some glorious days exploring Hobart's food, wine and rich maritime history.

Matt arrived safely back in Hobart on December 30. He and his mates completed the 29th Sydney-Hobart race on legendary ocean racer Bacardi, and celebrated the New Year with racing mates among the fleet at Constitution Dock. Pete flew back to Adelaide and Matt and I prepared *Vellamo* for our next adventures. Friends from our yacht club, who also competed in the Sydney-Hobart, put their 47.7 Beneteau Sintara into cruising mode for the delivery back to South Australia. Together, we explored the d'Entrecasteaux channel south from Hobart, picking oysters off the rocks for some glorious sundowner sessions as we travelled.

NEXT ISSUE: Wild West Coast

South coast Dolerite columns

Matt arrives on Bacardi after Sydney-Hobart race

Lessons Learned:

Conversations

What do you talk about when you get together with boat friends?

By Bill Martinelli • C470 Commodore

After cruising for almost 13 years here in Mexico our conversations have changed somewhat from the early years. Back then we really didn't know much about either this beautiful nation or cruising; along with our friends we were all searching for almost everything. We discovered that we needed extra fabric, Sunbrella, Phifertex, etc. to make sun shades, hatch/port covers, jerry jug covers and more. If we didn't have cabin fans aboard for the hot season, or we had a few, we still needed more. Every trip to shore was a hunting expedition.

In a big city like La Paz, there are some exceptions to what I'd consider normal back at home. U.S. Home Depots have a whole section of electrical crimp connectors; the plumbing department has a large selection of small brass 1/4", 3/8"

Yummy fresh fish! Gotta have wasabi! Photo by Julie Olson.

LESSONS LEARNED

(continued from previous page)

and 1/2" fittings. Not H.D. Mexico! Sometimes it takes travel to multiple stores to locate what seems like a very ordinary item. Yesterday's adventure was hunting for a "sash" brush in Loreto. We visited at least six hardware or paint stores before we "scored," the friendly taxi driver had a great time touring us around.

Earlier in the year, we drove a couple other cruisers around to purchase some boat items. My question, "Where do you need to go?" was answered with "Home Depot for a small brass fitting." My response was that H.D. won't have it but we can go the Parker store, they'll have it. (Parker is the parent company that owns Racor filters; their store down here sells hydraulic hoses and has a vast amount of fittings.)

There were many other things during our early years here that were near impossible to find. One was wasabi, essential for sashimi and sushi made from delicious mahi mahi, wahoo, and yellowtail.

A while back I was in the big Ace Hardware in La Paz shopping for nuts, bolts, O-rings - all out of the small boxes of hardware we're used to seeing in the states. After looking around a bit and not finding what I was looking for I asked, "Where are your

plumbing fittings?" No, we don't have those you need to go to Plomibaños (a different store). This isn't unusual, where you think it should be it is not!

There were many other things during our early years here that were near impossible to find. One was wasabi, essential for sashimi and sushi made from delicious mahi mahi, wahoo, and yellowtail. After searching numerous markets in multiple towns, we finally found some in a small tienda in Melaque (south of Puerto Vallarta). We bought at least one tube for ourselves and a spare for fellow cruisers D&S who were also craving it. Julie reminded me this shop also carried the still often elusive (Ortega or other brand) canned roasted green chiles (not a thing in Mexico.)

A couple days later, D&S headed south, buddy boating with a single hander friend, K. About four hours into the passage, D&S transmission failed, so the heroic K spent eight hours towing them to port including a perfect all-stop for anchoring (in the dark no less!).

After the thankful sailors refueled K's boat, they asked what else they could offer the helpful captain. K said, "I'll take that tube of wasabi Voyager got for you," so it was reluctantly handed over! Wasabi was that rare! Now, there's a new Asian foods wholesale/retail shop in La Paz where we can buy in restaurant sized-quantities if we wish, and even many grocers stock it now. We're very thankful thankful that Amazon is finally here as well, along with a significant increase in other cruiser- and foodie-friendly stores.

Now-a-days when we sit around with cruising newbies over an adult beverage or two, we can regale them with our vast amount of local knowledge to the point of boring them to death! And how it was in the old days when we could expend an entire day to find one small silly item that we needed, and still do that occasionally. Hmmmmm, I think sashimi sounds good for dinner!

C470s NorthDawn and WhatKnot enjoying Conception Island National Park, Bahamas. Photo by Sheryl Dawn.

2023 C22 Nationals from Three Different Points of View

Ron Nash, Ex-Vice Commodore of the Catalina 22 Association

The day finally came when Catalina 22s started to arrive at Iron Mountain Marina on DeGray Lake, Arkansas for the 2023 Catalina 22 National Championship Regatta. This was a huge event for the host, Iron Mountain Yacht Club (IMYC), a small club of sailing and power boats located on this Corps of Engineers Lake in the beautiful foothills of The Ouachita Mountains.

It all started about 2016 when several members started looking at ways to expand the club and increase interest in racing by considering a one design fleet. I thought the Melges 24 would be super, until we looked at the cost of even a mediocre Melges! Eddie Zeiler (aka Ezy) investigated the Catalina 22, the ultimate pocket-cruising trailer-able class. Also, they are less expensive! Or, to be more politically correct, affordable. I found the Catalina 22 Association, contacted the Secretary/Treasurer Dora McGee and she directed me to our areas Fleet 145 Captain, George Yerger, who hails from Heber Springs, Arkansas. George has become the ultimate Catalina 22 cheerleader. After retiring (about 2004), he considered sailing and bought a Catalina 22, his wife, Betty, naming it Sirocco (a Sahara Wind). George quickly started going on the Association Cruises (yes, they have organized week plus long cruises all over the country!) and competing in the Regional and National Regattas. He also started recruiting the local Cat 22s into the Association and starting the first Catalina 22 Fleet in Arkansas, Fleet 145. We got George down to IMYC for our PHRF Regattas so we could check out these Cat 22s. Ezy soon bought one and Chuck Atkinson, IMYC's Commodore, followed. I started crewing for George when he went to the National Regattas and George's favorite, the Region 3 Regatta at Lake Lanier Sailing Club (Georgia), Gone with the Wind. It is a great venue and home to many of the Catalina 22 past National Champions. A great learning experience.

So, in 2019, IMYC decided to host a Region 8 Regatta (Texas, Louisiana, Oklahoma, Arkansas, New Mexico, and Colorado). Wow, first time for this! This was a Saturday-Sunday affair in April with about 10 boats. We had a great time and IMYC club members really got together with a comradery we had not seen in a while, working hard together to make the Regatta a success. It was really good for the club. We continued that success with 2 more Regional Regattas in 2021 and 2022. George was seeing his dreams of an active and successful Catalina 22 Fleet in Arkansas come true.

One of the people that attended IMYC's Regattas was the Catalina 22 Association Commodore, Duncan McBride. He started teasing the idea that IMYC should host the Nationals. Good Grief, you're kidding? Well, do not put that bug in my ear! Soon, I was pushing IMYC head long, some kicking and screaming, into hosting the 2023 Nationals. In 2022, I put a bid in and darn if they did not accept. Oh My Goodness, what have I done? A regional Regatta is one thing, but a week long National Championship is entirely another! So at Fort Walton Yacht Club for the 2022 Nationals, the Association anointed me Vice Commodore. My sole job is to organize and execute the 2023 Catalina 22 National Championship Regatta. It was really going to happen. George was beside himself.

From all over the nation, Catalina 22s started showing up. Washington State's Don Woodhouse has not missed a National for 9 years. Detroit entrants were Jim Hodson (our new Vice Commodore for 2024) and Gary Allen. John Handler hailed from Chicago. Many states were represented: Tennessee, Ohio, Georgia, Florida, Alabama, lots from Texas and Oklahoma.

It was really happening.

Saturday, May 20, is mainly registration, getting the boats rigged and wet, and the Cat 22 Chief Measurer, Doug Thome, is quite busy. Doug has been on the winning boat for many years. He knows how to make a Catalina 22 go fast. I asked him to give a rig tuning seminar Saturday afternoon. He is always terrific with his

simple but precise explanations. Keep the boat flat, tune out weather helm, keep it simple with common sense.

After Doug's seminar, we started the social activities with Hors d'Oeuvres (hey, finger food) and beverage of choice at the IMYC Pavilion. Katie McBride had her Bushwhacker machine humming (her boat by the same name). Just for note, she is our only female skipper! (As a side note, ten years ago, we had a number of women skippers.)

Sunday's schedule had the Catalina 22 Association Board Meeting. A few slightly heated discussions occurred, but no one got hurt. At 2:00 pm we had a practice race so the PRO, Hal Smith, could shake out the water vessels (I call them buoy boats) and get them in tune with his app Buoy Zone. Wow, that is new stuff for us small clubs. Also, Hal could make sure the Committee Boat was set up to his liking (he is quite the perfectionist, but what do you want?). The Committee Boat is a wonderful Ranger Tug owned by our members Shannon and Amanda Shepherd. The only thing it did not have was a chef!

The skipper's meeting and then the Catalina 22 Association Member's meeting took place Sunday afternoon. The only changes to the Catalina 22 board was Doug Thome stepped down and David Hayslip was voted in as Chief Measurer. That was followed by the Association Banquet at the Fishnet Restaurant near DeGray Lake. The catfish supper was fantastic.

Monday morning at 9:55 was the official start to the week of racing. First up was the Spinnaker Fleet. Only problem was we were a little short of wind. The Spinnaker race got off with a shortened course finish. The Gold and Silver Fleets were to start their 5 minutes at 12:55 pm. The fleets were just bobbing around, waiting for some wind, but it never arrived. Monday night social was a feast put on by IMYC personnel Susan Schafer, Patsy Ford and Harriett Boddie. They served Rocky Ford's, Rocky's Ribs. What a hit!

> My sole job is to organize and execute the 2023 Catalina 22 National Championship Regatta. From all over the nation, Catalina 22s started showing up.

For Tuesday, Hal Smith changed the schedule to insure we had enough Gold Fleet races for the week, so the Gold/Silver Fleets were up first with a 9:55am warning signal. There was some wind, but not terrific. We got off 2 Gold/Silver Fleet races, the second one shortened due to slowing wind.

The IMYC crew did another good job in the food department. There was lots of good fun and stories abound!

Finally, the weather system changed on Wednesday and we had good steady wind 8-12 knots out of the NE. Just great! We finished four Gold/Silver Fleet races and one Spinnaker Fleet race.

Thursday brought us the same nice wind. The PRO got off one more Gold/Silver Fleet and one more Spinnaker Fleet race in before ending the Regatta. That made 7 Gold/Silver Fleet races and 3 Spinnaker races in total.

Keith Bennett, last years National Champion, did it again in Screamin' with Doug Thome crewing. Mickey Richardson was just three points back in Mischief. Chip Embrey was third in Chikin Ship. Remember the dying air in the second race on Tuesday? Chikin Ship obviously got caught in a dead zone and had a bad finish. She won the morning race! So, competition was closer than may appear by the final numbers. Duane Hebdige in Dream Weaver had a similar scenario. He also had a bad finish in that second Tuesday race. But, he also had 2 first place finishes for the week, but only finished fourth! Those dead air holes are costly.

The Catalina Silver Fleet is the B fleet, if you would. Bobby Edmond had pretty good control finishing with nine points. Mark Breeden was second with sixteen and just three points back, Katie McBride in Bushwacker finished third. Fourth was Stuart Weist and family in Lake Shark. They are an amazing family from Minnesota. Three boys, two seventeen year old twins and a thirteen year old, and the wife as crew with the dad on the helm. The kids are wicked smart. They are just the all American Apple Pie family and The Catalina 22 Association is proud to have them. Also, Stuart is the Associations Cruise Captain.

The Spinnaker Fleet was decided with just the three races. Keith Bennett's Screamin' took first with five total points. Duane Hebdige pulled off second with eight points, then, only 1 point back was Chip Embrey in Chikin Ship, and one more point back was Randy Pawlowski in Gold Rush to finish fourth. That is pretty close racing in the Spinnakers.

All of the contestants mentioned have been sailing Catalina 22s for some time. This year, Duane Hebdige shows up skippering a boat, where normally he had been crewing for others. Duane did very well. So, who is this guy? I first met him at Pensacola 2 years ago at the Nationals. Talking with him then, I learned he is originally from Zimbabwe. Well, the past few years, I had a young lady going to one of our local Universities voice interest In coming out to sail, so I put her on board and since she had no clue what line was what on my boat, I put her on the tiller. I figured this was not going to go that well. But dang, she was the best helmsman I have ever sailed with! She knew when a hit or header was coming before I had any clue! Well, she was from Zimbabwe. She told me she learned to sail at some yacht club there. So, talking with Duane at Pensacola and finding out

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(continued from previous page)

he was from Zimbabwe, I called my helmsman, Emily (she had graduated and moved far away), and put her on the phone with Duane. Mercy, they both had gone to the same yacht club to learn sailing in Zimbabwe! And, Duane was the Zimbabwe National Champion in Optimist at the age of thirteen! So, moral of this story is, learn to sail in Zimbabwe (joking), but most important, have a youth sailing program! Our club is trying to pursue this after many years of "well, we should of…". An interesting side story of smaller worlds and what it takes.

Our Awards Banquet at the DeGray Lake State Lodge was a terrific end to our week! We had good food, plenty of badgering and fun. We finished off our Hog Wild Raffle with items from our sponsors; Waters Sails, Seldon

Photographs by Eric Weist with Weist Photography
weist.photo@gmail.com

Masts, Spinlock, Vela, Catalina Direct, Catalina Yachts, Boomkicker and more. Sponsors went a long way in supplementing our income for the event and enabled us to leave the food preparations to someone else.

We did it! George's dream has now come true.

For those associated with large, well endowed Yacht Clubs, this story may seem a bit trivial. But for Iron Mountain Yacht Club in Arkansas, this was a huge undertaking. The effort put forth by club members was monumental. All credit goes to them! For the small clubs out there, think big, start your youth programs, keep reaching out, anything is possible!

—Ron Nash, Ex-Vice Commodore of the Catalina 22 Association, 977 Stephens Hwy., Magnolia, AR 71753, 870-510-2429

2023 C22 NATIONALS

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Rich Fox, Association Editor, Catalina 22 Association

Congratulations to Keith Bennett who is the 2023 Catalina 22 National Champion and the Spinnaker Fleet Champion. Crewing for Keith was Doug Thome.

NOTE: Photograph of Keith Bennett and Doug Thome holding the Catalina 22 National Championship Trophy by Eric Weist/Weist Photography.

It was a challenging week of racing as Keith's very good friend, and fellow Dixie Sailing Club member, Mickey Richardson took second place in the Gold Fleet (three points behind Keith). Chip Embrey took third place. Duane Hebdige (4th place), Randy Pawlowski (5th place) and Richard Gailey (6th place) duked it out all week long for top finishing positions.

Chief Measurer David Hayslip. Photograph by Ted and Dora McGee.

Two-time National Champion Keith Bennett has been a long-time member of the Catalina 22 National Sailing Association and has participated in Catalina 22 National Championships for over 25 years. Throughout his Catalina 22 racing career, Keith has regularly traveled to dozens and dozens of very competitive events at the regional and national level, including the Catalina 22 Midwinters. It has been a long and steady climb to the top and Keith Bennett is clearly at the top of his game. Keith was in good hands with Doug Thome who has also crewed on at least eight or more Catalina 22 National Championship winning boats for nearly two decades.

The Dixie Sailing Club dominated the Gold, Silver, and Spinnaker fleets as we also extend congratulations to Bobby Edmond who is the new Silver Fleet Champion. Bobby and his crew dominated the Silver Fleet with five first place finishes and two second place finishes. Bobby, welcome to the Gold Fleet! With a great showing by Keith Bennett and Bobby Edmond, the Dixie Sailing Club may need to add a new room to their club house to showcase all their winning hardware from a long list of winning skippers!

The Nationals were held on DeGray Lake, Arkansas (a beautiful venue) where the wind conditions for all four days of racing were quite unpredictable and continuously challenging to the Race Committee. We applaud the great Race Committee work lead by Hal Smith and his wife Sally along with Ted and Dora McGee who successfully completed seven races for the 25 boats in attendance. Also helping on Race Committee was a long list of volunteers from the Iron Mountain Yacht Club of DeGray, Arkansas who also did a fantastic job. Thank you!

There is more to the Catalina 22 National Championship Regatta than racing. We also recognize members for their exceptional contributions to the Class and the Catalina 22 sailing community. Congratulations to the following who received special recognition at this year's Catalina 22 General Membership Meeting:

- Duncan McBride, Leadership Award
- Geoff Endris & Connie Endris, Cruising / Sailing Family of the Year
- Ron Nash, Vice Commodore Award
- Katie McBride, Best MainBracer Article, Betty Gay Clements Women's Trophy
- Andrew Power, Best MainBrace Photograph
- Liz McCafferty, Best Video
- Mike Bracket, Sandy Kennedy Spirit Award
- Rich Gailey, Regional Commodore of the Year
- Jeffrey Raynal, New Racer Award
- Don Woodhouse, Long Distance Award
- Hal Smith, PRO Award
- George Yerger, Sportsman of the Year
- Andrew Katz, Sport Trophy
- Stuart Weist Family, Big Boy Heavyweight Trophy
- Eric Weist, Luke Weist, Nick Weist received Youth Sailing Awards

Eric Weist of Weist Photography was the official photographer of this year's events and has posted hundreds of excellent photographs that are accessible from the catalina22.org website. I encourage you to view his work and order some prints.

The Catalina 22 National Sailing Association Board of Directors

welcomes David Hayslip as our new Chief Measurer. David has been a long-time member of the Association and has several Catalina 22 National Championship titles to his name. We are very proud of David's accomplishments and his continued commitment to the Class.

We also welcome Jim Hodson to the Board of Directors as Vice Commodore responsible for organizing the 2024 Catalina 22 National Championship Regatta. Next year's event will be hosted by the North Star Sail Club and Catalina 22 Fleet 130 and will take place on Lake St. Clair, Michigan, the week of June 8 to 13. The Notice of Race for the event should be ready by January 2024 and accessible at catalina22.org. **—Rich Fox**, Association Editor, Catalina 22 Association

Keith Bennett and Doug Thome. Photograph by Eric Weist.

Vice Commoore Jim Hodson. Photograph by Eric Weist.

2023 C22 NATIONALS

Katie McBride, Commodore Region 8

Come to the Catalina 22 Nationals they said. It will be fun they said. Wow were they right! I had the privilege of taking my boat "Bushwacker" to Lake De Gray in Arkansas this year for Nationals, and my team had a blast. As a new racer, I decided to register in the Silver Fleet to continue learning rather than racing in the Gold Fleet and going for the Championship. I spent the week prior to leaving getting my boat ready to go. I added some new hardware and changed up a little rigging to help give my team a slight advantage. As soon as we pulled into the Iron Mountain Marina, we felt welcome. There were greeters there to point us in the right direction to park the boat.

We arrived Friday evening so that we would have time to get the boat rigged/ready for the water early and could help the rest of the racers as needed. I spent all day on Saturday watching some of the best racers across the nation set up their boats and discuss tactics with each other. I learned so much just watching them work. I took all that information and went straight to my dad to discuss what I saw and determine if we should make any changes on our boats before the practice race. The team hosting nationals this year put together a great itinerary for us and one of the biggest hits was a question/answer session with one of the top sailors who has won nationals several years in a row. Everyone had the chance to sit down and learn rigging/racing tactics that he uses on a regular basis. I don't know about the rest of the group, but I took away so much helpful information from the seminar. It gave me a much better understanding on why the adjustments that they make work and how to implement them on my boat as well. After the seminar, I made a few rigging adjustments and felt like my boat was finally ready to race. We spent the weekend hanging out with great friends and enjoying time on the water waiting for the start of racing early Monday morning.

This year's weather provided an added challenge for all of us on the water. The wind conditions were extremely light all week long. I have sailed in what felt like almost no wind and way too much wind, but nothing like this. Our first day of racing was postponed because there was not enough wind to kick off a race. We floated around for what felt like an eternity while the race committee tried to set a proper course. After a few postponements they finally decided to abandon for the day because the winds never built. It was a fun but uneventful day on the water followed by a great meal hosted by Iron Mountain. The following days showed us better

2023 C22 NATIONALS

(continued from previous page)

conditions and we were able to switch up the timing of each race to make sure that we would be able to get in as many races as possible for the week.

This was some of the toughest competition that I have ever raced in, but I had great crew. My twin sister Sara came to be my midship crew and Jim a great family friend came to be my foredeck. They might disagree but, they did the hard work this week. We worked on our communication as a team and learned what seems to work the best for our boat. I spent most of the week focused inside the boat. I only worried about what I could see/ handle within my reach. Everything else they had to update me on. I refuse to look at anything behind the boat as we race because I know if I turn my head for just a split second it will change the direction I am heading/ my speed. My crew took that information and took turns checking for other boats and make sure that everything else was under control. Though I am sure I probably made them move more than they thought necessary we had a fantastic week on the water. We had 7 great races. My goal was to do well in the silver fleet but also secretly to finish ahead of a few gold fleet boats as well since they have at minimum a five-minute head starts on us. We were able to finish ahead of 4 gold fleet boats during the week and had a blast trying to keep up. Our strategies were different because as most of the gold fleet was headed downwind, we were heading upwind to the windward mark. I think my favorite part of the week was trying to decide if we could cross the boats coming down wind or if we would need to tack away quickly. As I talked to my crew about this maneuver, I couldn't think of a better phrase, so I told them we had no choice but to "thread the needle" because there was not going to be enough room to tack away. We used this phrase the rest of the week as a joke because it seemed to work the best for the situation.

This was the most fun I have ever had out sailing on a Catalina 22. We managed crazy wind conditions, and tough competition but I wouldn't trade it for the world. Our 3rd place win sure was sweet!! There are so many ways to have fun on a Catalina and we did most of them this week. We had umbrellas on the water, some had water guns, lots of cold drinks/snacks and the friendliest group of sailors you can find. I can't wait for the next regatta so I can use everything I learned and continue improving my boat and the sport of sailing. **–Katie McBride**

Photographs by Eric Weist with Weist Photography • weist.photo@gmail.com

PART TWO
Part 1 was in the Summer 2023 issue

Replacing our AGM House Battery Bank with Lithium Batteries

By Rick McGregor, 1999 Catalina 380, #145, San Pedro, CA

This article is part two of a very technical installation process for converting a standard battery bank to Lithium. If this project is one you wish to undertake, I highly suggest acquiring part 1 from Mainsheet Vol. 41, No. 2 from Summer 2023 for context and valuable details.

As I started Part 1 of this technical article, "I am not a licensed electrician. I am writing this to share my experience and solutions, but your boat is different and your installation should be inspected by a licensed electrician upon completion". I am not endorsing any particular products, and I am not sponsored. There are many options on the market today for Lithium Batteries and their support components, as well as different ways to wire this project; these are simply the choices I made for my boat.

As discussed earlier, there are several brands of batteries I considered. My decision to use KiloVault batteries was based on these "deciders":

1. They fit in the spaces we have available to us on the Catalina 380.
2. Their BMS for the HLX+ 2400Wh allows for charging up to 150 amps, unlike many of their competitors which have a max of about 100 amps.
3. They have built-in Bluetooth, so I can monitor them in their hidden installed spaces.
4. They have a port for future firmware upgrades to the BMS.
5. They can be discharged up to 100% of capacity, which scares me… I'll don't take them down to below 90% for my peace of mind.
6. A Kilovolt support team member got back to me in less than 24 hours with a question.
7. They are priced very competitively.

The Catalina 380 has the battery box in the galley designed to hold two 4DLs and the little starter battery box forward of it. I chose to put one battery in the stock battery box. I placed the least sensitive electronics in the place where the second battery used to reside, least sensitive because of their chance of getting wet from water coming down the companionway in a big sea.

The components in this area include:

1. A Victron Lynx Distributor, which is just a very organized bus bar… and it looks cool.
2. A Victron DC to DC Isolated charger, which charges the starter battery from the house bank.
3. A load switch to turn off power to the house distribution breaker panel
4. And, lastly, a programmable Victron Smart Battery Protect to stop the batteries from running down to a programmed state of charge level.

While simple positive and negative bus bars could have been used, I chose the Lynx Distributor because of the orderly and compact way it managed the large DC wires. It incorporates in-line fuses within the unit, and allows for future expansion.

How to get fast charging while protecting the alternator from a BMS disconnection:

As I mentioned earlier, a problem charging a LiFePO4 bank with an alternator is that when the bank gets up to 100% state of charge (or a few other reasons like overheating, shorts, etc.), the BMS shuts itself down to protect itself and disconnects itself from the charging system. If the engine is turning and the alternator producing charge, not having a place for the alternator to put the power it is generating will burn out its internal diodes.

In reading about how others wired their systems to avoid this, most had the exact same solution to ensure there was never a disruption to the amp flow from the alternator to a battery that would accept it. Their solution was to connect the alternator to the lead acid "non bms" starter battery first, then the starter battery would connect to the Lithium house bank via a DC-to-DC charger. The lead battery will always remain a constant connection, a non-interrupted receiver of the alternator power.

REPLACING OUR AGM HOUSE BATTERY BANK WITH LITHIUM BATTERIES

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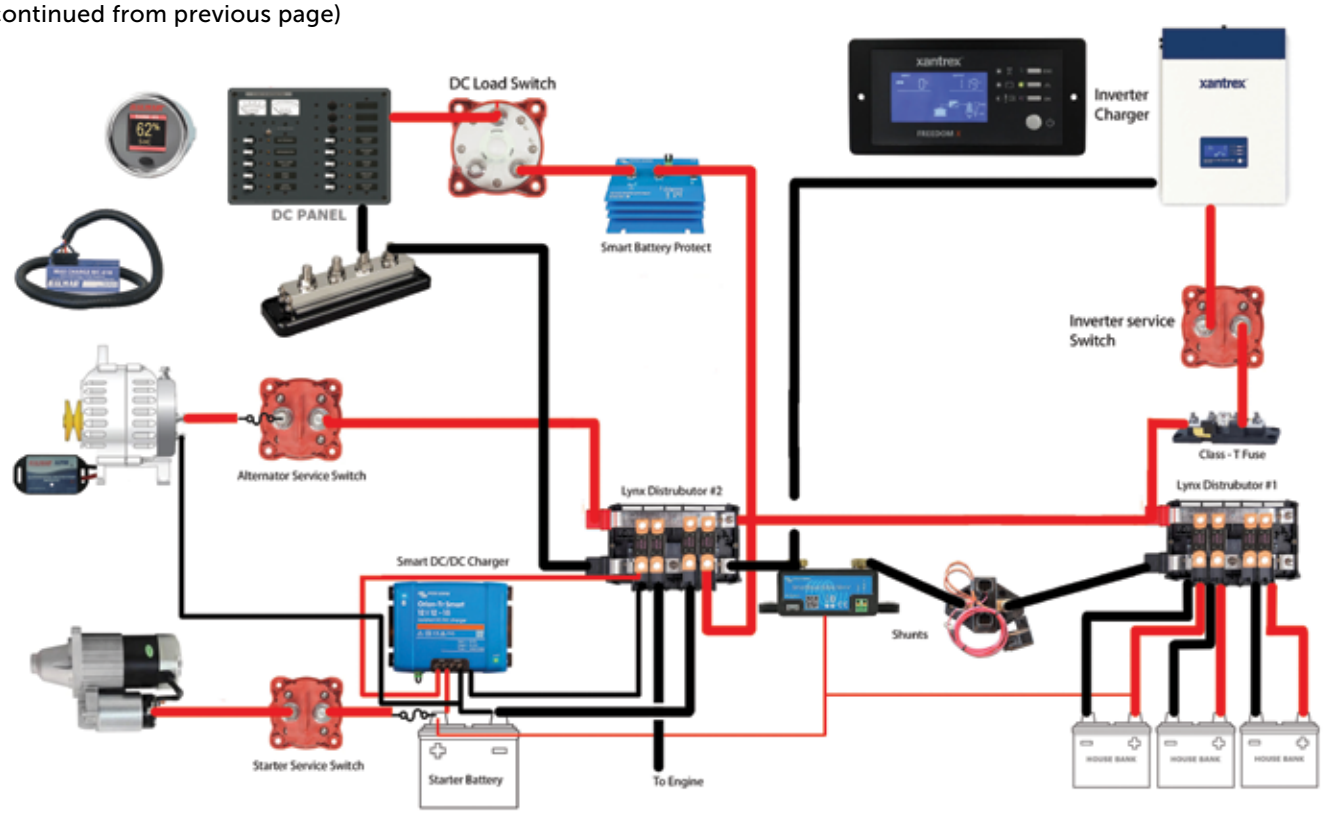

This is the wiring plan I used for lithium project on Highlander II.

I immediately saw the significant downside to this solution.

The most efficient Victron DC/DC charger I found at that time charged at a maximum of 30 amps, meaning that recharging a 3 x 200Ah bank (getting 10 amp each from the DC/DC Charger) could mean charging by alternator for 20 hours to bring them up to 100%. Fast charging is one of the only advantages I saw to lithium, and I viewed the start battery to house battery solution as crippling dead-end.

My guess is that manufacturers are concerned that if one connects a stock, unregulated 70 Ah alternator to the Lithium house bank, the alternator will be wiped out in short order due to overheating due the fact it was not designed to put out max power for extended periods of time. By using the wiring strategy of alternator to lead acid starter to DC/DC charger, it will keep the stock alternator more in line with how it was designed to function.

In the lithium battery manufacturers defense, I did see a few of them refer to a "Regulated Smart Alternator" as an option to the DC/DC charger route. But if they were to elaborate on the additional cost and hassle of installing a regulated alternator system to obtain fast charging rates, the change over would be a deal breaker for many potential customers.

Now that I got that off my chest, with the luxury of having the Balmar Regulated Alternator, you get several benefits:

- You can get almost 80% of the designed output of the alternator. In my case programmed my 170Ah alternator to run at its lowest charge settings to not overwhelm the system, I am seeing charge rates to my house bank of 85Ah at 1500 rpm and 130A at 2500 rpm.
- You can program at what alternator body temperature you would like it to reduce output so it can cool itself down. (An alternator body temperature sensor is a mandatory sensor that you must install.)
- You can precisely set the bulk charge voltage to match the spec sheet of the battery, along with about a dozen of other programmable settings you set based on the manufacturer recommendations.

(Update note: Since the original installation of this project, I have added a blower and vent hose to the engine compartment to bring more cooling air to the alternator.)

Instead of charging to just the starter battery, I limit the risk of an alternator blowout by maintaining a constant flow to the DC/DC charger and the house bank. This set up charges the starter battery very nicely at the 30Ah charge rate, and when the engine is off the house bank can change recharge the start battery. While I have found that the starter battery ends up matching the

The stock battery box was used for 1 battery, a panel load switch, Victron Lynx Distribuiton box, Victron Smart Battery Manager, and Victron DC to DC Charger for Starter Battery.

Storage area fore of sink contains two Kilovault 200Ah batteries, Xantrex Inverter Charger, Vic- tron Lynx Battery Bus Bar, Battery Load Switch, two battery monitoring shunts and Class T fuse.

resting lithium voltage of 13.6 volts, this is still about 90% of state of charge for an lead AGM, which is plenty of juice to start my old Westerbeke.

In the rare eventuality of a shut off of current flow with this wiring set up, I have my alternator protected by the Sterling device I mentioned before and I backed it up with an additional Alternator Protection Module from Balmar.

I decided protect the more sensitive electronics in storage space, just forward of the galley. In this space I crammed:

1. (2) 200Ah KiloValult batteries
2. 2/0 & 4/0 Cables and numerous wires
3. The fully programmable Xantrex Freedom XC Pro 3000 Inverter/ Charger
4. An Inverter Load service switch
5. A 300Ah Class T fuse block and fuse
6. A second Lynx Distributor
7. A Victron SmartShunt Bluetooth shunt
8. A Balmar SG200 Shunt (cause I had it)
9. A 5" computer fan with a variable speed controller to get the hot air out of the space.

For my secondary charging system when hooked up to shore power, and my supplier of 120 AC, I chose the Xantrex Freedom XC Pro 3000 Marine Inverter/Charger. I liked unit because it is made to charge lithium, it looks cool, fits in the space neatly, and has an adjustable charge rate of up to 150 amps. And, it puts out 3000 watts of AC from the house batteries.

Because the inverter is buried in the cabinet, I chose to put an remote screen on the nav station for monitoring. And again, because all the electronics and batteries utilize bluetooth, I can monitor all aspects of the charging system remotely on my phone.

IMPORTANT: When wiring a LiFePO4 battery in parallel to the bus bars, the battery cables (or conductors) must be the same size and length. If not, the resistance will be different, and they will charge and discharge at a different rate.

Since my one battery is aft and my two others forward, I ran the positive and negative wires to the forward Lynx distributor. I matched the length for the other two, running the slack around the area to the distributor mounted on the galley back wall.

Also Important: Using the correct gauge wire is imperative to avoid overheating the wires and potential voltage drop.

Most Importantly: When determining the right gauge wire using most wire charts, the length of the run is the totality of the loop of the circuit, not the distance from the power source to the component. i.e. a 15' run is 15' of positive and 15' of negative wire for a total of 30 feet.

Balmar's MC-614 (now bluetooth capable MC-618) controls works with the Balmar XT alternator to safely charge the Lithium battery bank with high amperage without overheating the alternator.

REPLACING OUR AGM HOUSE BATTERY BANK WITH LITHIUM BATTERIES

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For the runs from the batteries to the distributor, I ran 2/0 Cable… not 2 AWG. 2/0, the big stuff.

For the cable run to my inverter, it required 4/0 cables that are heavy, expensive, and hard to work with but dictated in the Xantrex manual.

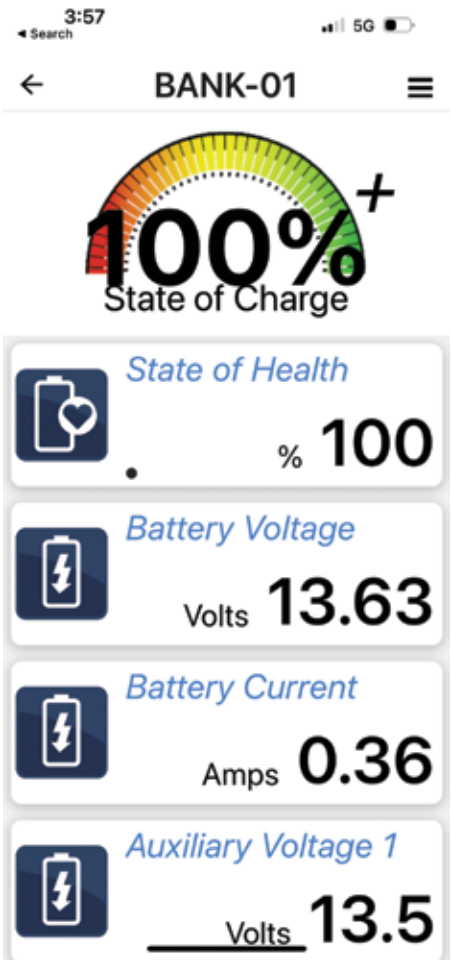
The ground from the inverter case is required by ABYC code to be the same or one gauge lower than the feed wire, so 3/0 was used and run to the distributor 12 volt ground.

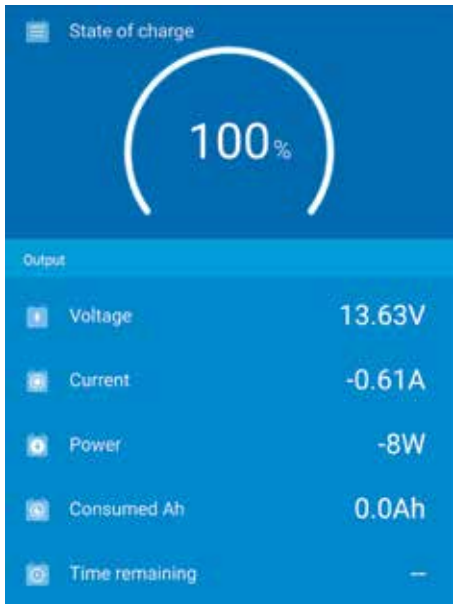
The Lynx Distributor in the forward space can be considered the battery load/charger distributor, whereas the aft Distributor is used for the components and feeding the house panel.

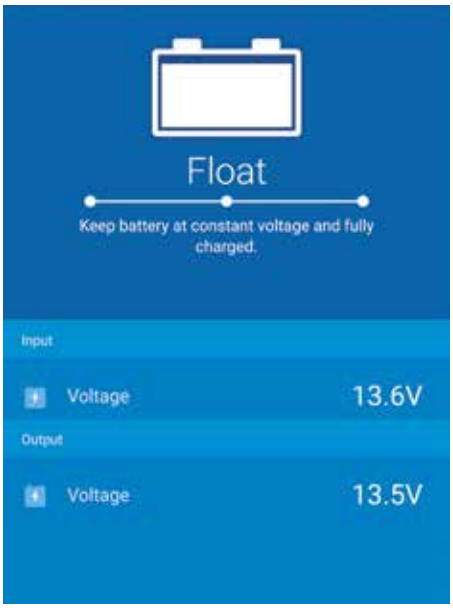
Since LiFePO4 batteries don't outgas like Lead Acid batteries, I cut two vents, one toward the bow and one starboard, covering them with beauty grills. I used a simple 12-volt computer fan and a speed controller to create air flow out of one of the vents.

The shunts were wired to capture and monitor all electrical draws on the boat, including the inverter/charger. These shunts monitor historical usage, system loads and battery health.

Each battery has its own dedicated fuse in Lynx Distributor #1. Using the +125% rule, each 200Ah battery uses a dedicated 250Ah fuse. A fused distribution cable from Lynx Distributor #1 is run to Lynx Distributor #2.







Because the installation of the components limits convenient access to them, external monitors and bluetooth interfaces from each component are used to monitor the battery and charging systems.

The starter battery positive cable was run under the nav table to its dedicated load switch. What was the "house" positive running from the old batteries to the 1/2/Both switch now runs from the Lynx Distributor #2 though a 100Ah fuse.

The engine ground connects to the Lynx Distributor #2, as do the grounds to the house panel, which used to run to the AGM batteries.

My boat had an old inverter mounted in the stern lazarette and ran to the stock battery box. I left these wires in place to run the power from my future solar panel system.

So what have I learned doing and now living with my new LiFePO4 system and my new 12 volt appliances?

- The ability to monitor and program with Bluetooth on my smartphone is worth every penny the Victron and Kilovault batteries components cost.

I keep a lithium jumper pack on board if my starter battery goes kaput. It brings peace of mind.

- The house bank depletes just as fast as my old AGM bank did, but it charges a lot quicker, and you can use all of its power, not just 50% of it like the AGM's.
- Since you can't combine the banks anymore, I keep a lithium jumper pack on board if my starter battery goes kaput. For $250 on Amazon, it brings peace of mind.
- Our 12-volt Spectra watermaker draws about 10 amps, making 8 gallons an hour. I can fill a tank in about 3 hours using about 5-10% of my house bank.
- Our 7000 BTU Mabru 12 volt Air Conditioner pulling 22 amps for 8 hours in Summer will only deplete our battery bank 29%.
- We have yet to install solar, but it will easily integrate into the system.
- We purchased an induction cooktop as an alternative to propane. It uses a lot of power when switched to high, but it still does a nice job in its lower settings with a reasonable power draw.
- Heating the water using the engine while charging has proven more successful than using the inverter.
- Was the upgrade worth the expense? Not owning a generator and needing to run some pretty power hungry systems, I am happy we made the change. They are easy to work with, and so far, knock on wood, have been trouble free and have performed as advertised.

—Rick McGregor

Note from Gerry Douglas, Tech Advisor:

Rich's description of the AGM to Lithium battery replacement is well documented and illustrated. This retrofit is probably beyond the capabilities of many owners and should be done by ABYC Certified marine electricians. The equipment selections may be excellent choices but should not be considered the builders recommendations . This is a complicated retrofit and involves a number of skills , such as wire terminals corrosion protection that may not be obvious to weekend mechanics.

Note from Catalina Yachts, Jon Ames, Tech Editor:

Mr. McGregor's project and article on installing lithium batteries is extremely well researched and written. On a project of this scope and cost safety is always a first consideration. The ABYC has electrical standards that cover much of this material to ensure a safe installation. However, beyond safety there infinite ways to create a custom electrical system so I will second Mr. Mcgregor's suggestion to involve a licensed, trained ABYC electrician to ensure that the system is both safe and acceptable to your surveyor and insurance company and your peace of mind.

https://abycinc.org/page/StandardsSupp58

Refer to the following standards: E-2 Cathodic Protection, E-10 Storage Batteries, E-11 AC and DC electrical systems on boats, E-13 Lithium Batteries, E-30 Electric propulsion systems for further information.

Tech Notes from Association Technical Editors

Tech Notes are also available at **www.mainsheet.net** in PDF format for printing or reading on digital devices.
Fall 2023 password: F413

Note from Catalina Yachts, Jon Ames, Tech Editor: If anyone has questions about their keel contact our technical desk manager Warren Pandy, **warren@catalinayachts.com**

Catalina 470 National Association

Slip-sliding Away

C470 Association Technical Editor Joe Rocchio

I returned to Long Island and to *Onward*, C470-126, after six months of it sitting forlornly on the hard for the winter. This was the first winter it had spent out of the water since commis-sioning in 2003 so it was a new experience for both boat and owner. The season thankfully was mild and it survived in its shrink-wrapped cocoon very well. Before re-launching, I wanted to take advantage of access to the hull to do any necessary maintenance. The bottom paint (Petitt Trinidad HD) had been redone in August 2021 and I decided to have the yard touch it up using two gallons of paint. A little cosmetic fiberglass work on the hull's stub-keel joint and the bot-tom of the rudder was also done.

I was concerned that it was time to replace the cutlass bearing. However, a check by the yard manager showed there was no play or obvious wear. This was amazing after some 20 years since commissioning, >80K nm and >15K engine hours. As with most things sailboat-wise, it seems to do better with reasonable continuous use.

Next came the PSS packless shaft seal that had not been replaced since commissioning. For the last 20 years it had performed flawlessly except for two or three minor incidents of drips that were easily fixed by a seal-burp and/or a sliding-seal face wipe with a soft cloth. However, after a bit of research and with the manufacturer's recommendation of a change every ~7 years, I decided now was the time to replace it. Thus began a saga.

Prop shaft collar removal

Over the last 20 years, the shaft-to-engine coupler has needed very little attention. At 5,000 engine hours my mechanic had loosened the attachment bolts to allow use of a feeler gage to check the engine alignment. In 2022, when I replaced the Yanmar 4JH3-TE with a new 4JH80 common rail diesel, the yard found no adjustments were needed to align the new engine. So, the very limited working access to the coupler plates on the engine and shaft had not been an issue for 20 years.

I was able to remove the four 10mm coupling bolts from the coupler with some time and my limited patience. I purchased an 8mm square-head socket and after soaking the two square-headed setscrews in PB Blaster overnight, I cut the retention wires and used my impact wrench to back out the set screws. I then soaked the shaft key and the set screw holes in the shaft coupler with PB Blaster overnight. I had the extremely naïve idea that I would be able to just pop it off with a few taps the next day. What was I thinking?

As I learned by experience and then some research, the shaft collar is manufactured to have an interference fit of ~0.001 inch. That and 20 years of metal-to-metal surface contact in a moist environment did not make for an easy extraction - so I followed the common technique of placing a spacer (22mm socket) between the end of the prop shaft and the center of the engine flange. I then used four 10mm bolts of varying length to slowly, gently, and evenly pull the two flanges together and force out the shaft.

This simple process is made challenging by the ~1cm clearance between the forward face of the flange on the transmission with the aft face of the transmission housing. Thus the

Original prop shaft collar and engine attachment showing problematic bulkhead

process required 10mm bolts of three different lengths, as well as varying numbers of ~1mm thick washers to pull the flanges together while still being able to turn the shaft to allow balanced application of torque.

As can be seen in Photo 1, the bottom of the bulkhead at the aft engine access panel spans the shaft and the aft end of the shaft collar so that physical and visual access is limited. I was in one of my more pig-headed modes and did not want to cut the bulkhead in two places to allow good access. A bad decision, as it made the process very tedious - first day, seven hours, 7/16 inch movement; second day, two hours, 1/2 inch more to final removal.

I carefully inspected the bellows and found it to be in excellent shape with no evidence of surface crazing – the mark of incipient failure. Not bad for 20 years! The prop shaft was also in excellent condition.

PSS removal

Once the shaft collar was off, I began to remove the original PSS. When I commissioned On-ward, I installed a heavy-duty hose clamp just forward of the rotor disc. This was a safety de-vice to prevent the rotor from slipping forward on the shaft should the set screws loosen. This had been a problem reported by several early C470s. I then removed the outer two set screws and was surprised to find them lightly torqued. The two inner set screws were also lightly torqued – much to my surprise.

I had always made it a part of my annual maintenance to re-torque both the inner and outer set screws. During the repowering process last year I apparently failed to do this. While the rotor had not been loose on the shaft, there was clearly evidence of the set screws slipping on both the shaft and the rims of the set screws were worn down. Wear marks on the forward face of the rotor made it clear that the safety clamp had served its purpose and kept the rotor in place.

The sliding seal surface of the rotor was in very good shape other than some carbon smudges. As I removed the bellows and carbon stator, I carefully inspected the bellows and found it to be in excellent shape with no evidence of surface crazing – the mark of incipient failure. Not bad for 20 years! The prop shaft was also in excellent condition. While the location of the rotor and hose clamp could just be discerned, surface polishing with

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600-grit wet emery paper removed most of the evidence.

I considered replacing the original shaft collar with a split collar to make reinstallation easier but this was impractical because the increased length and diameter would interfere with the bulkhead. The original shaft surface and interior surface of the collar appeared to be in very good shape with some minor surface burrs near the set screw holes. I gently removed these with a good file followed by emery paper. Following a tip from the yard's parts manager, I purchased a set of flap-wheel sanding drums. I very gently used the 1-1/2 inch diameter 240-grit drum to clean the interior surface of the shaft collar. I then used 600-grit emery paper to wet sand and polish the shaft surface and the interior of the collar surface. I also cleaned and polished the surfaces of the square locking key and its channel in the shaft.

With the surfaces cleaned and polished, the collar would slide on the shaft by ~1/2 inch – leaving 1 more inch to go. There was no way to be able to press the collar on. Heating to expand the collar was going to be necessary and I concluded there was no reasonable way to handle and orient a 300-400 ºF collar with that #&^% bulkhead in the way. So, I bit the bullet and used my trusty oscillating tool to make two vertical cuts in the bulkhead; one on each side of the floor trough. Having done this, I realized the folly of not doing this at the start. The whole process would have been much easier and faster!

New PSS installation

With the prop shaft and collar cleaned and polished, I began reassembly by sliding the shaft aft by ~6 inches. The new PSS (HS 1/2 inch shaft dia., 2-1/2 inch shaft log dia.) appeared to have thicker and stiffer rubber bellows. The carbon stator assembly now has a 3/8 inch stainless steel hose barb to vent the forward end and prevent an air bubble forming that would deprive the sliding seal from getting the water needed for cooling and lubrication. The original PSS did not have this vent. I also added a stainless steel collar clamp (Climax Metal 2C-150-S T303 Stainless Steel Two-Piece Clamping Collar, 1-1/2 inch bore size, 2-3/8 inch OD, with 1/4-28 x 3/4 set screw) just forward of the rotor to replace the hose clamp previously used as a safety retention device.

Shaft collar reinstallation

I borrowed a toaster oven, and heated the shaft collar to 400 ºF for 15-20 minutes. Using an oven glove it was amazingly easy and a matter of ~15 seconds to slip the collar into place on the end of the prop shaft! Isn't physics great - a thermal coefficient of linear expansion 0.0000065 inch/inch/ ºF for mild steel and 400 ºF worked magic. Next the prop shaft was easily reconnected to the transmission flange that I had marked to maintain the original orientation.

PSS Adjustment

The PSS was positioned on the shaft log with the hose barb oriented to not interfere with the access cover panel, and four hose clamps were tightened. I then compressed the bellows ~7/8 inch as recommended and used the new shaft collar to hold the rotor in place against the stator until the setscrews were tightened. A 3/8 inch I.D hose was run from the PSS to above the waterline near the main engine vacuum loop. See Photo 2, Completed installation.

After launch and motoring a slip, I went below to check and found the seal area dry. Nice! **—Joe Rocchio**

Completed installation

Note from Gerry Douglas, Tech Advisor:

If we all were as diligent about maintenance as Joe our boats would last forever. The PSS shaft seals were once factory standard but were discontinued due to the potential catastrophic failure mode of the rubber bellows. It is important to replace the bellows and other parts at the manufacturer recommend intervals. Should the faces be run dry and seize they can cause the bellows to rip and cause a massive leak.

Catalina 350 International Association

Replacing the Bilge Pump Hose

C350 Association Technical Editor Jason Crew

Special thanks to George A. Thor for submitting this article. **—Jason Crew**

The bilge pump hose connection to the electric bilge pump in the Catalina 350 contains a backflow check valve. This prevents water from draining back to the bilge pump and back into the bilge sump after the pump has stopped running. This helps keep the bilge dry.

A couple of summers ago I noticed after cleaning and draining my bilge sump that water was running down the side of the hull aft of the bilge sump. I was pumping water out of the bilge only to have a lot of it return. This abnormal behavior could only be the result of a damaged bilge hose in that area.

When winterizing the boat in cold climates it is important to run propylene glycol antifreeze from the bilge out from the bilge sump so that the bilge hose now contains antifreeze rather than water which would freeze and possibly split the hose. I suppose I may have forgotten to run antifreeze through the bilge pump one season.

The outlet end of the bilge pump hose is found on the starboard side connected to the top of the manual bilge pump hose with a tee fitting. The connection is about four feet above the bilge so water can drain back into the bilge if the check valve is not fitted, not functioning correctly, or if the hose is otherwise compromised (as I suspected). The hose is 1-1/8 inch inside diameter and runs for about 26 - 28 ft, so that is 310 cubic inches of water (1.3 gallons) draining back into the bilge sump after the bilge pump stops.

Electric bilge pump hose connection to manual bilge pump hose

I followed the path of the hose from the bilge pump and surmised that it traveled along the port side of the hull in a space just under the port settee and down to the hull. Then running through a space under the floor toward the fuel tank area, through the aft bulkhead and then up and across to where it connects to the manual bilge pump hose below the starboard quarter locker hatch.

I measured this run to be about 26 to 28 feet. The original hose is corrugated, but I chose a smooth wall vinyl hose. A corrugated hose can reduce the pump flow by about 15-20 per cent and the check valve will also constrain flow. If you are really needing to pump the bilge you should have as close to the maximum pump capacity that you can.

I disconnected the hose from the bilge pump and removed the check valve. Using duct tape to tape the new hose to the end of the old hose, I was going to use old hose to pull the new hose through. I could tell this was going to be a two-person job, but I was alone. Going into the port cockpit transom locker, after taking the shelf out, I started pulling the hose through. I pulled a little and then went down to the cabin trying to shove the new hose up into the space where it entered the under the settee.

As I pulled it from the aft bulkhead the old hose ripped apart somewhere in the middle. I was only able to pull part of the old hose out. My attempt may have worked if I had someone to push the new hose through from the

Electric bilge pump and hose running toward port settee with back flow valve

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bilge compartment as I was pulling, but apparently the stress of pulling on the old hose cause it to part where the damage was. That left me in a quandary as to what to do next. I pulled out the new hose that was taped to the old hose in the bilge area and then disconnected the rest of the old hose from the rear bulkhead and the tee fitting on the manual bilge hose in the starboard compartment. The old hose was now all out, and now I needed a new way to get the new hose back in.

The new hose was stiff, so I could try to push it through from the bilge area back aft, but I soon realized I would not be able to guide it through the aft bulkhead or through the channel just under the settee. Changing strategy, I started at the aft bulkhead and pushed it forward past the fuel tank toward the bilge area. I was able to get it past the fuel tank but then it stopped. The opening from the forward end of the fuel tank where the hose was to run was not easily seen. Shining a bright flashlight down into that corner of the tank area, I was able to see the small area where the manual bilge pump hose was exiting. Pushing on the hose from the aft locker, I gathered enough hose by the fuel tank to try pushing it through that opening. I was able to guide it by reaching as far down into the corner I could, due to the tight space.

I was able to push it through under the floor of the starboard cabin but had no idea where it would emerge. I knew from installing a new battery and alternator that there are two access holes in the underlayment floor under the wood floor. The one I needed was aft of the port settee, and I hoped it would give me access to pull the hose farther forward from under the starboard cabin and then under the port settee to the bilge area.

Removing the table and the table support bases from the floor (and then the screws holding the floor down), I lifted the large floor panel up and moved it out of the way. I could see from looking into the access hole by the nav station that the hose was almost through from the tank area. I was able to grab it from this access port. Pulling more hose through the aft bulkhead and past the fuel tank I reached the cross timber where the hose had to run under the port settee.

Bilge hose passing fuel tank and through bulkhead forward of the tank

Approximate location of access port under floor

I could see where the manual bilge pump hose exited and started pushing on the hose through this hole. It took a few pushes and pulls until I could see the end of the hose where it should exit to the electric bilge pump. Reaching into the hole just next to the bilge pump, I pulled out the length of hose I needed to connect to the pump.

The hard part was over. I attached the new hose to the rear bulkhead and made the connection to the tee fitting on the manual bilge pump hose. I had pulled enough hose through to the bilge area so I could measure and cut the hose to install the back flow check valve and then attached the hose to the electric bilge pump.

The major cost for this project was the new bilge hose. I bought 30 feet of Trident 147 XHD Bilge/Live Well hose, 1-1/8 inch diameter for $75. I had about 4 feet left over, but I would rather have a little more than a little less. The factory bilge hose connection to the check valve was made using a 3/4 inch MPT to 1 inch hose barb, which required a lot of caulking on the barb fitting to make a good seal with the 1-1/8 inch hose. This is obviously not ideal. I was able to find a 3/4 inch MPT to 1-1/8 hose barb fitting and used this to make the correct connection between the hose and the check valve, without requiring the extensive caulking used at the factory.

—George A. Thor

Note from Gerry Douglas, Tech Advisor:

George did an excellent job of describing the replacement process. All hoses in the marine environment should be considered expendable and inspected regularly. Replacing hoses before a failure is easier because the existing hose can be used to pull a replacement. Hoses that fail in areas that cannot be inspected can have catastrophic consequences.

Catalina 34/355 International Association

Upgrading The Drive Belt On A Universal M25-XP

C34 Association
Technical Editor
John M Nixon

C34 Associate Technical Editor
Ron Hill

Special thanks to Paul Atcock for submitting this article. **—John Nixon**

Our Universal M25-XP diesel engine on Eximius, our 1987 Catalina 34, is probably 35 years old or more. In the 8 years that we have owned Eximius, we have gone through just a few drive belts, but we have had to put up with the squealing of the belt when the electrical system requested a lot of power from the alternator and the 'Belt Dust' that is shed over the engine despite the frequent checking of the alignment of the pulleys that are driven courtesy of the Drive -V- Belt.

Over the past year, we have made substantial upgrades to our electrical system, including the engine alternator mounting bracket and the installation of a Balmar MC-618 External Regulator. Our intent in the foreseeable future is to replace our current Lead Acid house batteries with LiFePo4 Lithium Batteries. The LiFePo4 batteries can pull a substantially higher charging current than the LA batteries. Having a drive belt system that can reliably drive the engine alternator is important.

Several of my buddy sailors have upgraded their engines (not necessarily the same engine we have,) with a Serpentine belt system. They have been very impressed with the results.

Looking up the details of the Serpentine kits online, I found that one important issue was that the replacement engine pulleys are wider than the existing pulleys by about 1/2". I checked our engine and confirmed there was at least 3/4" space between the front face of the existing pulleys and the engine sound insulation that is on the back of the cabin steps that form the front cover of the engine space.

I ordered the Balmar 48-USP-M25 Serpentine belt kit from PKYS.com - it has come down in price over the past few months and only cost $472.94 total including tax. In the online order, I asked if they would confirm that it was the correct version for the Universal M25-XP, their response was that I should confirm the version myself.

A member of the C34 Association suggested that I contact Balmar directly. I did and Mike from Balmar confirmed that I had the correct kit version for our engine. I then contacted PKYS.com and confirmed the order.

Rod Collins from marinehowto.com advised that I should ensure that the crank pulley on the engine is a 3 hole fitting to match the kit. It does, but I had to go check.

I expect to have to remove the alternator in order to replace the pulley, and there's a local shop that can do that. I confirmed that the Coolant Pump

Balmar Serpentine Pulley Kit

Pulley is replaced by the new one (the pulley on the left in the photo). The crankshaft pulley fits over the existing inner crankshaft pulley. Note there are two of the serpentine belts, one is a spare. Of course, some of the kit components are out of stock.

Here's the plan. Remove the engine cover (cabin steps) and remove the existing V-belt.

Try to remove the alternator pulley - If I cannot get it off then remove the alternator and take it to a local shop and have them replace the pulley. The new crankshaft pulley fits over the existing pulley, I have already confirmed that the bolts are not seized, so install that pulley. The same goes for the coolant pump pulley. Install the new Serpentine belt and adjust the belt tension by adjusting the alternator support arm (note that I'm using a modified support arm that I had made locally). Test it, run the engine over the full RPM range, Check for belt slippage (squeal), then recheck belt tension. All done.

RIGHT! Boat projects never go that easy! Ok, everything is ordered, should arrive by February 25-ish.

Our plan (Peggy will be helping offering moral support) is to go down to the boat when the kit arrives and get down to it. We're taking the boat out for our sailing club's annual Circle Raft up on March 3rd. -- No pressure --

2023.02.24 09:00 - Just received notice from PKYS tracking that the package should arrive today before 9pm although it's 'out for delivery' right now. Our schedule is busy Saturday. We don't go to the boat at the dock on Sundays, but I should be able to start the install on Monday Feb 27th. It's going to be tough but I was planning an article for the Catalina Mainsheet magazine about the install, that would be due delivery by March 1st. - NO PRESSURE -

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1st attempt to install the new pulleys

Well that hit a wall as expected! I was able to remove the coolant pump pulley and the new pulley fits the drive flange where the old pulley was installed. That's on the Up side. I was able to remove the outer pulley on the crank shaft (the existing pulleys are all twin belt pulleys). I removed the three bolts that secure the pulley to the crank shaft and remove the keyway hex bolt, then used a 3 jaw puller to remove the outer pulley and expose the original inner pulley.

The new Balmar crank shaft pulley is mounted over the existing inner pulley, but it does not fit. The Original Inner Pulley is 130mm diameter. The new pulley's internal diameter is 127mm. (That's measured with my plastic Dial Caliper, so not likely to be that accurate.)

And I confirmed that I cannot remove the pulley from the alternator, so I will have to remove the alternator and take it to the local shop and have them remove the old and install the new. But first I'll have to figure out the issue with the crankshaft pulley. There's a local Kubota dealer just 10 mins from my house and they are always helpful, but I'll also contact Balmar to see if they have a pulley that will fit over our crankshaft pulley. I put everything back together and ran the engine for 10 mins to make sure all was well. We're taking the boat for a weekend trip starting Thursday (tomorrow) evening. We're good to go.

The task continues.

I finished work early the other day (Thursday) and went to the boat to see if I could pull the engine crankshaft outer pulley using the puller as shown in Photo 2. There's a heavy duty tab washer keeping the nut on the shaft, I was able to bend that back out of the way and then used a socket and wrench to remove the nut. It took a few whacks of a hammer to loosen the nut but it came off after a few minutes of effort, then the puller easily removed the pulley and the 'key' fell out as I removed the pulley from the shaft. I was pleasantly surprised how easy it was to get that off.

Removing the Crankshaft Pulley

Next item to tackle was the alternator pulley. I didn't think I would have any chance to remove it although I did have a suitable socket. The alternator spins so easily I didn't think it was worth trying. So I disconnected the main battery positive feed at the battery and then I removed the alternator, putting a piece of heat shrink tubing over the bare end of the big positive feed wire so that I could reconnect the battery in order to keep power available to the bilge pump.

With the crankshaft pulley and the alternator in hand, I headed to Fort Lauderdale to visit the machine shop and battery / alternator shop. 1st stop was Fort Lauderdale Battery & Electric. They have been really helpful in the past and I think that the majority of patrons go there with a 'problem' whereas I've been fortunate enough to know what was needed and they always come through. I showed them the alternator and the new pulley. Two minutes later it was all done. Barely had time to warm the seat at the counter. Within 10 minutes of arrival I was leaving the shop with the alternator wearing it's shiny new Balmar pulley. *[Note: Removing the drive pulley on an alternator is an easy task in most cases if you use an impact wrench with the appropriate socket. The same goes for installing the alternator drive pulley. –John Nixon]*

Next stop was Tropical Marine just down the road from the Lauderdale Battery & Electric shop. They had made the modified Alternator Support Arm. They are going to turn the engine crankshaft pulley down so that the new Balmar pulley will fit over it, an easy fit. Should be ready this week.

So! Making progress

Important note. A boating buddy also installed the Balmar Serpentine belt kit on his boat's generator. Within just a few hours, the belt was damaged due to misalignment, so I'll be careful to measure the alignment when I put this back together. Probably make a separate post about that, but I think that I should be able to shim any of the pulleys outwards in order to ensure alignment.

Waiting on the phone call from Tropical Marine. Tuesday, March 16th. Got the call from Tropical Marine, it's ready for pickup. Wednesday: I drove

down to Tropical Marine before heading into work today. The new pulley now fits around the crankshaft pulley so it's ready to go. Oh, and all of the holes line up.

I'll work on Monday and Tuesday and take off Wednesday to complete the Serpentine Belt upgrade for the engine. We must not run the engine yet as our prop shaft has a problem that the divers should fix in the next few days.

Wednesday March 22nd. Well, that was not a real surprise! The belt is too long!

Down at the boat this morning, I cleaned up the front of the engine with some Spray 9 and a bunch of rags, it looks spiffy. Next I installed the crankshaft pulley, remembering to apply the TefGel onto the face of the new pulley that touches the old crankshaft pulley. [*Note: The TufGel is required to maintain isolation between the steel inner pulley and the aluminum outer pulley. Otherwise the dissimilar metals can create some nasty corrosion at the junction of the dissimilar metals. –John Nixon]*

I did not apply the Loctite to the pulley bolts as I wanted to check the alignment first.

Next was the install of the coolant pump pulley that went without a hitch.

Finally install the Alternator that now wears a nice blue Balmar pulley on the front spindle.

Next was to install the new Serpentine belt over the three pulleys, and there was a problem. The new belt is at least 1cm too long. The alternator would be sticking out of the access door in the bathroom. Grrrr. But what the heck, it's a Boat!

I called Balmar and the belt is 42" long and they have a 41" belt. They cost $74 each plus shipping. After picking my jaw up from the floor, it was explained how they would exchange the 42" belts for the 41" belts if I mailed them to their facility in Alabama, so that's the plan.

Oh, there's another issue. The belt tensioner that I made to use on the V-grooved pulleys that I have now removed, does not play nicely with the new Aluminum Pulleys. I'll have to polish out the scratches on the surface of both the outer crankshaft pulley and the alternator pulley. At least that's easy as they are aluminum.

Ok, held up for a few days. I'll mail the belts tomorrow. Stay tuned.

Change of plans!

My buddy has replaced the V-Belt on his boat's Generator and had the same issue: belts too long. He suggested I contact VBeltGuys.com. I did, and two new 41" belts arrived 3 days later and cost less than the

Project Complete

CATALINA 34/355 INTERNATIONAL ASSOCIATION

(continued from previous page)

shipping both ways to Balmar. So I'm not sending the Balmar belts back - if you know anyone that wants a pair of 42" 10 ridge Serpentine belts free for pickup or shipping --- let me know.

Thursday March 30th

Went down to the boat, completed the install of the belt and checked the alignment, looks as close to perfect as I think I can get it. Ran the engine, all worked perfectly, the belt did seem to stretch/loosen a little, but I re-tensioned it in about 5 mins.

Oh! Forgot to mention: When I used my home-made belt tensioner to try and tighten the 42" belts (unsuccessfully) the tensioner damaged the alternator pulley surface. Today I took a set of fine files and removed any burrs off of the alternator pulley. Note: Do not use a tensioner that might damage the pulleys!

Once the tension was correct and aligned, I removed the bolts for the crankshaft pulley one at a time, and applied the Loctite supplied with Balmar Serpentine belt kit. Then did the same for the coolant pump pulley bolts. The final thing to do was bend the tabs of all of the locking washers on the alternator support arms and re-run the engine to confirm all was good - it was. The completed installation is shown in Photo 3.

Phew, so glad to complete this project. Of course, the engine sounds a whole lot better, or is that just that my ears are satisfied with completing the project? Here's all of the info about the kit, PKYS and Balmar, Lauderdale Battery & Electric and Tropic Marine Products. **—Paul Atcock**, *Eximus*, Hull #463, britinusag1@gmail.com, www.sailingeximus.com

Kit:
Balmar 48-USP-M25
Cost:
Subtotal: $442.00
Discount: $0.00
Shipping: $0.00
Sales Tax: $30.94
Total: $472.94
Purchased from PKYS Inc.

https://www.pkys.com
7416 EDGEWOOD RD STE 3
ANNAPOLIS MD 21403
410 280-2267

Balmar:
https://www.balmar.net
15201 39th Ave NE
Marysville, WA 98271
Customer Service: 1.360.435.6100 x1
Technical Service: 1.360.435.6100 x3

Fort Lauderdale Battery & Electric
2415 SW 3rd Ave, Fort Lauderdale, FL 33315
(954) 525-5557

Tropic Marine Products
217 SW 29th Street
Fort Lauderdale FL 333015
Phone: 954-779-7038

Note from Gerry Douglas, Tech Advisor:
The charging system upgrades in this article may be beneficial to 34 owners who plan on long range cruising and are very well explained by the author. The equipment selected for these upgrades are the authors choices and preferences and should not be considered recommendations by the builder.

Note from Catalina Yachts, Jon Ames, Tech Editor:
The Balmar serpentine belt kit is a very well done article from Paul and it was great seeing one of the early (pre 1989) universal's that still sported the Coppertone engine color. One can tell it is not the original alternator since the original (Prestolite? Or other approx. 50 amp unit) would have been engine matching-Coppertone color. Would it be possible to share what brand and amperage the replacement alternator was. Kudos to Paul for taking the time to make a precise, detailed job of replacing the pulleys and belt for a quiet, improved installation.

Catalina 320 International Association

Recovery from Hurricane Ian, Category 4+

C320 Association
Technical Editor
Jason Reynolds

Special thanks to Diane Fowler for submitting this article. **—Jason Reynolds**, jereyns@hotmail.com

Every summer, folks in Florida worry about hurricanes. Most are just wind and rain. I have lived in Cape Coral, Florida, since January, 1993, but nothing prepared SW Florida for the fury of Hurricane Ian on September 28, 2022.

My fiancé and I were spending the summer in Door County, Wisconsin. We occasionally watched the Florida news. Beginning September 19, we started watching the storm of the century constantly.

On September 27, we knew Fort Myers, Sanibel, and Cape Coral, were in jeopardy. The morning of September 28, on our Facebook 320 group, an owner from Maryland posted that he needed to sell his boat and was telling us about it before listing with a Yacht Broker. He said it had air conditioning! I asked him to wait a few days before listing it, because if my boat was destroyed, I would buy his. I anxiously watched the weather reports all day. By 1 pm, the wind shifted from the south. This is the worst possible direction because I was tied to a friend's dock on the port side, facing east. So, a storm surge and winds would put my boat in her backyard.

Hysterically crying, I called my close friends, and mourned the loss of my beloved sailboat. I told everyone, "There is no way she can survive this. Right now, she is being smashed into 200 pieces". It was a very sad night.

September 2022 – Aftermath of Hurricane Ian

Heavy boat rash on the port side gunnel and a broken window to *Windy City*

But, the following morning, my boat-fixer-guy called to say, "Overall, your boat looks pretty good. You have heavy boat rash on the port side gunnel, a broken window, and the pilings broke at your dock, so we need to move her." He took photos and then taped plastic patches over the exposed areas. No water ever got inside. The neighbor two houses down had just installed a new dock last year, so he let us move Windy City to his dock temporarily. I WAS ESTACTIC!!

Now, my networking began. I called sailing friends from Marco Island to Tampa, asking where to get repairs done. Our two local boat repair places on Fort Myers Beach were piled under about 30 commercial shrimp boats! Sadly, they will probably never reopen.

A friend from Naples, recommended an excellent fiberglass man, Steve. His daughter was managing a small marina where we might do the repairs. When I called Steve, he said he had several expensive yachts needing repair, but those owners were waiting for insurance checks. He asked, "Can you get her here tomorrow? And, do you have CASH?" YES AND YES. I had

CATALINA 320 INTERNATIONAL ASSOCIATION

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Fiberglass repairs begin

Boat rash

Windy City back home

money to pay for the repairs because Geico Insurance sent me a check within two weeks of the hurricane. Hurrah for Geico!

So, October 28, my fiance, Roger, and I motored her down near Fort Myers Beach. All the electronics worked! My TV antenna was missing of top of mast, and my power cord plug was bent up, but she is was seaworthy.

Finding parts for a 20 year old boat is not easy! The fixed port window was smashed in. The stanchions were destroyed, and the life lines had to be replaced. The rub rail track and rubber was destroyed and the striping and logo on port side were scratched up.

Every Wednesday, I made the drive down to the marina and reviewed the progress. It's a very slow process to repair fiberglass and gel coat, and I did not rush him. Steve hates searching for parts, so I used my real estate skills to go "on the hunt". I found the port window at Southern Cross Marine, Pensacola. They were very helpful and mailed it to me. Next, the aluminum rub rail track was not manufactured since 2017, so I called 10 salvage yards, Catalina in Largo, CatalinaDirect and Taco Marine with no results. Finally, I got smart and put my request on the Facebook Group page. Thanks to Scott, from Maryland, who put me in touch with Al Fooks, 206-932-7245, who owns Sailboatowners.com. Al has a huge warehouse of older Catalina parts in Gainesville, FL. Problem? He said there were 3 types of rails used in early 2000's, and it was a 5 hour drive. So, he snipped off a 1" piece and overnighted it to me. I rushed to the boat to double check and it was a match! Just when I was ready to jump in my car, Al says he'll be in St. Pete the next day! Thank you, Jesus. So, we met in a parking lot, and I bought track, rubber insert, and vinyl stripes.

My local sign shop who made my Windy City logos 10 years ago still had it in his computer, so the following day, a new one rolled off the presses.

The stanchions were sent to Gauhauer in CA, and the lifelines went to Miami. There were lots of swear words when Steve had to remove galley cabinets to re-bed stanchions.

On December 29th, we motored her back to her new dock. The port window break was not clean, so Steve had to build up the surround. Fiberglass dust is heavy and gritty. I spent 6 hours wiping every surface and taking all lockers apart!

We are grateful and excited to have our baby, Windy City, #948, back and looking shiny and beautiful again. Next summer, we may take her up the Caloosahatchee River and park her on the hard to avoid future storm damage. We pray that monster hurricanes like Ian never come again. **—Diane Fowler**, *Windy City* #948

Note from Catalina Yachts, Jon Ames, Tech Editor:

So glad the damage was cosmetic. One thing we might add is Steve may not have needed to remove the galley cabinet to get to the stanchion. Normally what is done is a 4" round access hole is cut in the back of the cabinet, to keep it in place, and then when new stanchion is back in a West Marine white plastic twist or snap in cover will go into the ring frame they provide. Since it is the back of the cabinet, rarely seen, and not the front, it is not uncommon for any boat, some come with them when built to have those two piece mini access ports in various places. We will often put them in a more common place of needed access, such as the anchor locker for wiring. Or if someone wants it to look exactly as it was before, a piece of white or teak Formica™ can be cut to fit the back face of the locker and held in place with a couple small dabs of silicone until needed to come out hopefully for not another 20 years or more.

Catalina 28 International Association

Parts Sourcing and Pricing

C28 Association
Technical Editor
Ken Cox

During this year's commissioning I ran across a couple of surprises like we do at this time of year and I thought I would share some thoughts on how to get the most out or your hard-earned boat bucks. Here I hope are some helpful tips.

The issue I noticed was a stain under the water pump of the closed water system, further investigation revealed the tank was empty and the level below the cap was down a couple of inches. There was also a scraping noise when I started it up for the first time. From the helm, I thought OH NO, flex-plate! My game plan was to replace the pump, clean out the HX, and replace the thermostat and gasket. So, I drained the anti-freeze, filled with water and a flushing agent as well as removed the thermostat. I ran for 30 minutes and gave the chemical some time to work, it did not look that bad but just trying to be proactive.

I drained and flushed twice more, with fresh water, running each time. I felt confident that all contaminants were gone and the second draining was very clean. I pulled the cap from the HX, found no surprises or rubber tips, replaced the zinc and reassembled. I then removed and replaced the water pump and the thermostat, filled with 50/50 solution of anti-freeze. I ran till warm and pressure tested the system, no leaks. I ran the system again, bled it at the thermostat and also at the water heater which was a bit contrary but did finally bleed, while running I closed the cap, ran up to temperature and shut down for the final time topping off the tank which I will watch closely for the next few times at the boat.

While most of you have done the similar exercise, I will back step a bit to share what hopefully will be some tips to save you some money. I think I had mentioned this on the website and I was starting to locate and source the new parts. I started with the OEM parts and then searched for the original engine's parts. If you have done this you know that one thing that complicates it is that there are two different pumps used. One with a 1/2" impeller and one with a 3/8" impeller so you have to have the old one out but then what to do.

In the meantime, I was contacted by Ed Montegue through the site with a referral and a part number and what he paid for it as well as price. As you know it is based off of a D600 Kubota engine used in tractors as well as some Bobcats.

When I saw the photo of Ed's I was a little worried, it fit his but was mine the same? It had a different front hub shape from mine as well as a different shaped rear impeller so I was concerned. I did not want to waste time and money on shipping and returns. Of course, this all happened on a Friday night and of course Monday was a holiday. So, over the week end I search it out. Here are some things I learned. First the OEM pump that I needed was a P/N 15852-73030 and it has a 1/2" rear hub. It has since been replaced with newer pumps. The revisions were noted by the second number, for instance, the 15852-73030 had been replaced by the 15852-73035, different impeller, then by the 15852-73036 which has the new style front hub and new design impeller. Both of which are cheaper built in my opinion. The older pumps get sold off onto E-Bay and secondary suppliers. I found all of these pumps from various suppliers on the web ranging in price from $59.95 to $345.00.

Armed with this information I went to my local Kubota dealer. I had tried to buy parts from them before but was kind of blown off like they did not want to help. I thought that maybe Kubota dealers were forbidden to sell them as marine parts because of a possible agreement with Universal, stranger things have happened. I went up to what seemed to be the guy everyone asked questions of and asked him if he had a 15852-73030 water pump. He kind of smiled and asked, what's that off of. I said a sailboat engine. He asked how comfortable I was with the numbers, I said pretty comfortable. He asked the model and serial number of the engine in the boat; I gave them to him. He still had a smile on his face. With tax I paid $115 for the pump. I could have gotten it cheaper but I felt confident before I left having compared them that it was the correct one and I had it the next day.

Here is what I learned about Kubota dealers. There are dealers and there are ENGINE dealers that you have to be a dealer for a bit before you become that and have to reach a sales volume level, then you have access to all the engine information, Kubota, Bobcat, Universal.....

So, if you're getting the run around from your local dealer ask them if they are an engine dealer, if not, find one, set back a bit and see which guy everybody asks their questions of, then see him.

I also got a thermostat and gasket for $15 instead of the $68.50. If I had the part numbers, I could have done even better but I think the price I paid is worth it to have a friend in the Kubota business!

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(continued from previous page)

I also considered rebuilding the old one but at that price I'm not sure I can take the chance.

Looking a bit further ask yourself why is the price so different? The automotive and marine business are very similar, I know the automotive business better so will start with that for a comparison. Here are the steps in automotive, manufacturer marks up about 25%, sells to the WD or warehouse distributor who marks it up another 20-25% and sells to the jobber. The jobber is the local parts store and they have several price points. Stocking dealer, one who buys fast moving parts and keeps them on the shelf like oil filters, next up is dealer about 5% more for not stocking their parts, then an over-the-counter price since everyone deserves a discount and it makes them feel good and finally retail which no one pays.

Let's put in dollars and sense. So, the manufacturer makes it for $100, marks up about 20% which does vary between product type so he sells it for $125 to the Warehouse Distributor, who sells to the jobber at $156.25, again about 20% who sells to the stocking dealer for $208.33 roughly 25% or dealer at $223.22 or 30% or to his walk-in trade for $240.38, roughly 45% and the retail that no one actually pays would be another 25% or a whopping $320.51. Gets stepped on pretty fast.

Now let's look at what I believe to be true in the marine market as there are some subtle differences. Here we have the manufacturer who sells to a WD or Manu-rep who sells to the equipment manufacturer, like Kubota, in quantity who uses it in house to produce equipment. The aftermarket gets serviced from either Kubota or marine dealers that have the same produce in a different box but sells a lower volume hence needing a larger mark up to stay in business. So, if the manufacturer makes a product for say $100, he would sell it at a larger mark up about 30% or $142.85, the equipment manufacturer just handles it as a part of the whole and not as individual pieces but the equipment dealer say a Kubota dealer who sells a larger volume would sell it to his walk-in customer at about a 40% mark up or $238.08. In essence some of the middle men are skipped.

Looking a bit further ask yourself why is the price so different? The automotive and marine business are very similar, I know the automotive business better so will start with that for a comparison.

On the marine side the sales volumes are smaller for the same item in a different bag so a larger margin is needed for them to do business. So say the manufacturer makes the same product for $100 he would sell if for slightly more than to say the tractor dealer as he needed to get different boxes, has smaller production runs and on and on, so would most likely take about a 35% mark up and sell it to the marine dealer for $153.84, the marine dealer again having the smaller market with less sales has to make more per sale and marks it up to say a 50% margin for a price of, $307.68.

So now that I have really confused you, how then does it get on the market for such cheap prices? As a product either slows down or has flooded the market or whatever the dealers or even the WD may liquidate product as they are not making the sales number and are taking up space in the warehouse so they may dump them. These get bought out by E-Bay sellers or companies that buy liquidations and sell on line. The WD is just recouping money and opening up space at a loss. Now the liquidators have a cheap product and aggressively target markets these products. Then when they get scarce, think antique's, the prices start going up again.

I have done this with volatile products. I have done it with refrigerants, both R-12 and R-22, I bought pallets of both for like $65 a 30# cyl for R-12 and $95 a 30# cyl for R-22, I sold R-12 for right at $550 a 30# cyl and R-22 for right at $800 for a #30 cyl. The profits were huge.

So, this month I hope you got a little technical information as well as useful information on getting better use of your boat bucks. **–Ken Cox**. *Acadia #317*

Note from Gerry Douglas, Tech Advisor:

Ken always has good advice based on solid experience for Universal engine owners. I recommend caution when buying from Kabota tractor dealers for marine parts, there are many subtitle and important differences in the bolt-ones during the marinazation process performed by Westerbeke/ Universal that may not available from Kabota dealers. Buying parts from a marine dealer can be a good trouble shooting resource if you run into issues that a tractor dealer may not be able to help with.

Catalina 22 National Association

Mast Carrier & Light Bar

C22 Association
Editor Rich Fox

On long distance trips when trailering my Catalina 22 Sport, I always get a little nervous about trailer lights not working due to damage while launching or from unexpected clutter on the highway.

I recently built a dual-purpose mast carrier and light bar for the stern pulpit that is installed when trailering. A 36-inch carpeted bunk board is secured across the stern pulpit using U-bolts and wingnuts. The mast rests on top of the bunk board and secured using heavy duty cable ties. This helps to relieve any pressure of using a mast-up crutch on the two stern gudgeons.

On the carpeted bunk board, I installed two trailer lights. These are the type of lights that are often seen on the trunk of cars being towed behind an RV. Twenty-five feet of wiring is run along the mast, secure via cable tie, to the bow of the boat. To enable the wiring to reach the connector on the tow vehicle, I added quantity of two four-foot-long wiring extensions.

On my tow vehicle I have one connector with a 4-plug and the 5-plus combination allowing me to use my trailer lights and the dual-purpose mast carrier and light bar at the same time. This gives the back end of my boat/trailer much more visibility to vehicles behind me.

Note from Gerry Douglas, Tech Advisor:
Good advice from Rich Fox, especially if you regularly ramp launch you C22. Trailer lights with multiple connections in the wire harness are subject to corrosion in salt water, this a good and simple solution.

Note from Catalina Yachts, Jon Ames, Tech Editor:
The Light Bar addition by Rich Fox is an excellent article for the 22, and would also be highly recommended for trailering any other Catalina. How often have we come up behind someone at night with their very low off the ground trailer lights either half shorted and dim, or one is out or sometimes both? Regulations for trailer lights come under both federal and state jurisdictions. Color, placement, height, and width of any lights or reflectors must be considered. For example, some jurisdictions mandate that trailer lights be installed no lower than 15 inches off the road and no higher than 60 inches, and that they extend to the trailer's widest dimension. Be sure your lights comply with the laws of any jurisdiction in which you'll be driving, including those regarding illumination of the license plate.

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:

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smwyc06@gmail.com
#2, Long Beach
mbierei@pirnie.com
#3, Chesapeake Bay
wjhomes@zoominternet.net
#4, Puget Sound
rodj2@msn.com
#5, Long Island Sound
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#6, San Diego
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#7, Lake Ontario
crew@ceibaone.ca
#8, New Jersey Coast
calypso36@comcast.net
#9, San Francisco Bay
jennai1@sbcglobal.net
#10, Gold Coast (Ventura & Channel Islands)
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#14, Low Country (S. Carolina)
byrontobin600@hotmail.com
#15, Lake Texoma
byrontobin600@hotmail.com
#16, Texas Coast
byrontobin600@hotmail.com
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NEW FLEET – Lake Huron / Cheboygan, MI
jenweber33@charter.net

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#12, Chesapeake Bay
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#13, Lake Lanier Georgia
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#14, Florida East Coast
bob@s-i-inc.com

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

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

Other regional C30 Fleets

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

Let us know where you sail!

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

Catalina 34/355 International Association

Secretary's Report

C34/355 Association Secretary Stu Jackson

C34/355IA Membership continued to grow modestly to 510 from last quarter's 507, and includes 31 C355s.

It was a quiet winter. I removed the tarp from the boat yesterday in preparation for my short haul scheduled for tomorrow to replace the shaft and strut zincs and clean the prop. The first event of the season is the Canadian Catalina Rendezvous at Thetis island in early July. I missed it last year because of the fouled prop and lack of timely response from a diver who'd promised to show but hurt his back on the morning of his scheduled appearance. I built in some wiggle room this year!

Trust you had a fun-filled 2023 and are planning for 2024. And, as always, many thanks from all of us to all of you for supporting the C34IA. **–Stu Jackson**, #224, *Aquavite*

Catalina 320 International Association

Commodore's Report

C320 Commodore
Joe Grande

As you already know, my challenge in writing these "timely" quarterly articles remains the time warp of publishing. As you read this Fall issue, your summer is behind you, and you are storing your summer memories. Our collective geography is so vast that those of you in Duluth, Minnesota are gearing up for the first polar vortex, while the southeastern members are still bracing for the next hurricane land fall.

This my "front yard" on the fresh water of Lake Union in Seattle looking NNE toward the University of Washington.

Before I can view the opening of the Hiram Crittenden Locks in Ballard and transition from fresh to salt water, I have an issue to address. My masthead is missing its anemometer.

My first clue that something was amiss was when I turned on Whisper's instruments to discover a lack of input from that device. It hung there for months until recently the unit landed in the cockpit. What could have caused the screwed and caulked block

mount to disengage from the masthead plate? Then I remembered our visitor from July 28, 2019 in Comox, British Columbia, Canada. Apparently, it's weight stripped threads on the masthead block, which finally removed itself. My challenge will be solving this problem.

With a new mount and wire in hand, I know that my bosun's chair and ascenders will only get me to the top of the main halyard. Fortunately, there is a crane in my marina that will fly me there. I hope to feed the new wire through the mast and compression post to make the bilge connection. Knowing that the mast is deck stepped, it may present a bigger challenge that will involve lowering or raising the mast.

Come what may, Whisper will be departing Seattle around the middle of July for the waters of British Columbia, Canada.

On another note, my email inbox has been flooded with postings to our website. It is encouraging to see the participation of members seeking advice and the ready responses they receive. Special thanks to our technical web volunteers who make this exchange so easy for us!

I hope your enjoyed your summer cruising. If you would like to share your adventures with the rest of us, you are invited to email me at joe_grande@msn.com. **—Joe Grande**, *Whisper* #772

Catalina 22 National Association

Commodore's Report

C22 Commodore
Duncan McBride

Good Day to All, Here in Region 8 we just finished our final spring regatta. We have had a great sailing season so far. With three regatta's already done plus a week of Nationals it has been a busy spring. Nationals this year was held at Iron Mountain Yacht Club in Arkadelphia Arkansas. We had 29 boats that were registered to race. We hope that even more will participate in next years Nationals. Next year the Nationals will be held just North of Detroit at North Star Sail Club. If you have never traveled to the Nationals you don't know what you are missing. The fun, the learning

CATALINA 22 NATIONAL ASSOCIATION

(continued from previous page)

experience and the friends that you make are unmatched at any other event. Not to mention the fun of traveling with your boat and getting to see our beautiful country. If you are new to racing register in the Silver Fleet and get your feet wet by coming and racing against other newbies. The information that you will pick up and the things that you will learn about your boat and racing is incredible. There is no better way to learn about racing your boat than to bring it to Nationals. If your club or if you know of a club that might want to host Nationals in the future have them get in touch with me. My information is on the Catalina22.org website.

Here in Region 8 we are working hard to introduce new sailors to the boat. We are showing them the boat and explaining its history. We have even taken new sailors out for a sail to show them the boat and the fun you can have on one of these Catalina 22's. The region is working hard to promote the sport of sailing and get new members and families out on the water and sailing. Our region is growing and we are happy to help others and their clubs get more active with regattas. If you ever have any questions or ideas reach out and get a hold of me and lets talk.

Have a great sailing season.

—Duncan McBride, Commodore TSA-LA-GI Yacht Club, Commodore Catalina 22 National Sailing Association

Upcoming Catalina 22 Sailing Events

C22
Association Editor
Rich Fox

Details for the events listed are usually available at catalina22.org. Upcoming Catalina 22 sailing events include the following:

- Throwdown in Motown Regatta, Michigan, August 26 & 27
- Gold Rush Regatta, Texas, September 9 & 10
- Grand Annual Regatta, Kentucky, September 23 & 24
- Frostbite Regatta/Oklahoma State Championship, Sept 30 & Oct 1
- Old Fox Regatta, Ohio, October 7 & 8
- John Hallett Memorial Commodore Cup Regatta, Texas, October 14 & 15
- Terlinguaite-In-Exile Regatta & Region 8 Spinnaker Championship, Texas, October 21 & 22

If you have a Catalina 22 regatta or cruising event scheduled for this year, please send me your announcement, Notice of Race, or other information so I may help publish the event on the catalina22.org website. My email address is c22mainbrace@yahoo.com.

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