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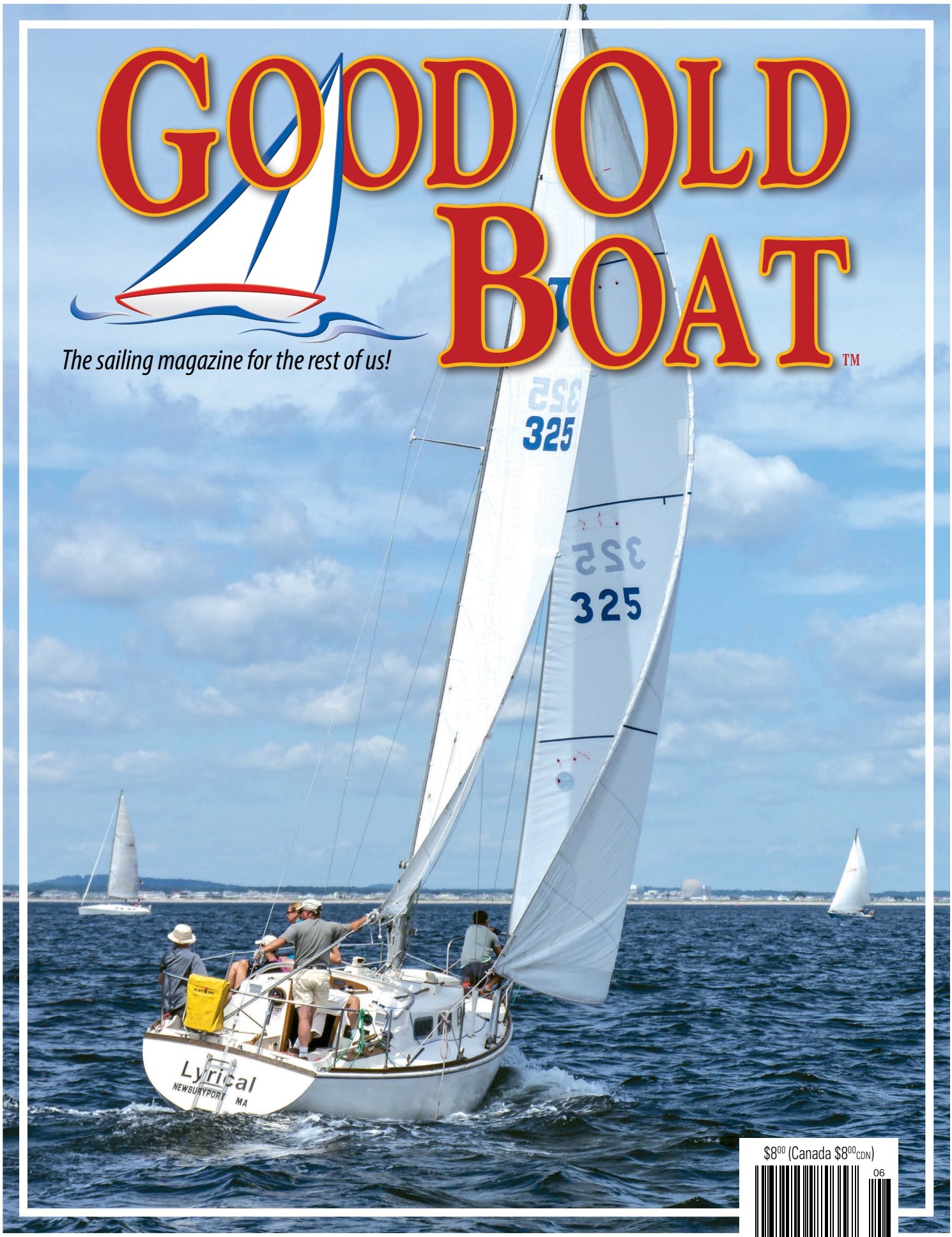

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Issue 114 May/June 2017

GOOD OLD BOAT™

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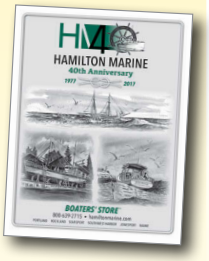

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GOOD OLD BOAT

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On the cover . . .

Chuck Neville was heading upwind off Newburyport, Massachusetts, in *Lyrical*, his 1975 Tartan 30, when Homer Shannon, in hot pursuit aboard *Kalani*, a Sabre 38, took this shot with a little assistance from the optical image-stabilization feature of his Panasonic DMC-GH2.

GOOD OLD BOAT

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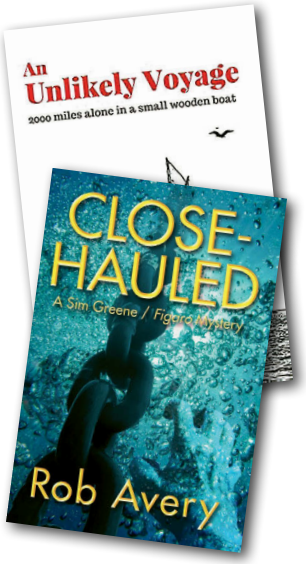
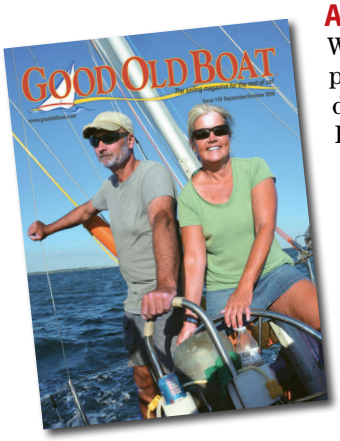


Looking for some summer reads with a nautical bent? We have a team of book reviewers who queue up a new list of good books in each issue of our bi-monthly *Good Old Boat* Newsletter. Head over to GoodOldBoat.com and click Book Reviews under the Reader Services tab and check out the reviews from our April Newsletter. Maybe you're in the mood to follow John Almberg on *An Unlikely Voyage* of discovery, 2,000 miles from Florida to New York. Or maybe you want to venture farther north and east with Sandra Clayton who, in *Islands in a Circle Sea*, beautifully reveals the New England coast, New Brunswick, and more. Or maybe you want to open Rob Avery's *Close-Hauled* and join the fictional Sim Greene in his hunt for the bad guys responsible for the body he finds off the breakwater of a Southern California harbor . . .



Aboard and under way

We're proud of the photo spread in this issue, photos of our *Good Old Boat* community of do-it-yourselfers doing it themselves (see page 42). But we know there's a flip side to all the work we all put into our boats, and that's the sailing side. So we're on the hunt for photos of you, aboard and under sail. From the photos we receive, we'll pick a select few for a future magazine spread, and find a home for the rest, either on the Reader Photos page of our website or in our newsletter. And if we get just the right photo, portrait orientation, we'll make it a *Good Old Boat* cover. Be creative, have fun, and send your unretouched high-res photos to michael_r@goodoldboat.com.

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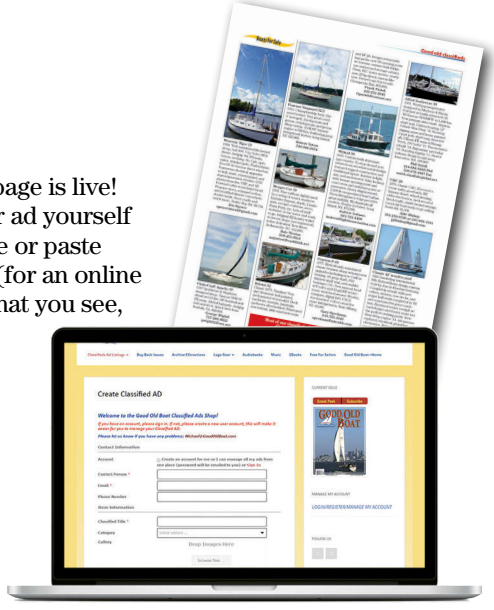

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Big names who drop in

Mystic sometimes hosts very special guests

BY KAREN LARSON

Our *Mystic* is no ordinary C&C 30. Not only has she been featured in this magazine uncountable times, she's had two sailing luminaries at her helm: George Cuthbertson and Lin Pardey.

George, for those for whom the name doesn't ring a bell, is one of the Cs in C&C. He and George Cassian founded the well-known Canadian sailboat manufacturer in 1969. (For more about that history, refer to our September 2002 issue, or read it on the website of the C&C 27 Association: www.cc27association.com/history.html.) As C&C's chief designer for many years, George Cuthbertson had enormous influence on *Mystic*'s design.

Imagine our delight in the summer of 2005 when George contacted us and suggested he drop by and meet us at the marina in the town of Spanish, Ontario. We eagerly agreed, then got anxious. As we cleaned and polished our 30-year-old gal before she would meet the man who made her, we hoped George wouldn't be disappointed in *Mystic*, or with any of the modifications we had made to her. Instead, we were pleased to learn that this legendary designer was down-to-earth and simply curious about a couple of Great Lakes sailors who'd started a sailing magazine for people who love their good old boats.

Lin Pardey needs no introduction. Over the years, she and Larry Pardey have visited us at our home in Minnesota several times. Two years ago, Jerry and I visited them at their home in New Zealand. Like George, they were initially curious about the couple who'd founded a sailing magazine. Unlike George, neither Lin nor Larry had ever visited us aboard *Mystic*. Not until the fall of 2016, that is.

Larry's health is not good these days and he doesn't travel much, but Lin is still active on the boat show circuit, offering seminars and promoting their books. Last September, driving east from the Port Townsend Wooden Boat Festival to the Annapolis sailboat show, Lin again stopped by for a visit. This time we invited her for a sail aboard *Mystic*.

Despite enjoying a close friendship with Lin, Jerry and I were again a bit anxious ahead of welcoming such a sailing celebrity aboard *Mystic*. Lin has circumnavigated aboard two boats as different as can be from our plastic and unremarkable C&C 30 (sorry George!), two boats she helped to build. What would she think?

Well, we needn't have worried. A sailboat's a sailboat, and Lin was up for a visit to Bayfield, Wisconsin, where her arrival caused quite a stir at our marina. As it turns out, Lin had never been on Lake Superior and said she'd only been on a boat on any of the Great Lakes once: a powerboat on Lake Michigan long, long ago. We needed to rectify that!

We had to tear Lin away from our dockmates, who were thrilled to spend some time with one of this country's best-known cruisers. She and Jill Hetherington, her traveling companion from New Zealand, were on a tight schedule, but the four of us sailed around a nearby island for a few hours before they continued on their drive east.

Although *Mystic* (and her owners) may have felt rather important during that sail, we shrugged it off the next day and sprang into the prep work necessary for hauling her for the winter. Our work done, we headed home to begin our own trip east to Annapolis and the big sailboat show. Not a bad way to wrap up the 2016 sailing season.

I wonder who might drop by to go sailing aboard *Mystic* this season?

O'Day debate, sailing therapy,

O'Day discrepancies?

I was pleasantly surprised to see the review of the O'Day 25 in your March issue although, being so familiar with my own vessel, I did notice a few errors. First off, *Cassandra*, my 1979 O'Day, has entirely plywood-cored decks from the factory, not balsa as your article states. Later models moved to balsa, I believe. Additionally, the keel draft on the keel/centerboard version is not 2 feet 3 inches, but 18 inches. The transom-hung rudder actually draws more than the keel to account for that 9-inch discrepancy. There have been a few cases where one of these boats has sailed into skinny water and the rudder, rather predictably, removed itself from the boat because it hit the ground first. Typically, the bottom slopes quickly enough that this is not a problem and the stub keel hits first.

Cassandra was my first keelboat and has served me well for thousands of miles of sailing. My only complaint is her tendency to be stopped cold by the heavy chop that we can get in Lake Ontario. Keep up the good work, all.

–Brian McBurney, Baldwinsville, N. Y.

Ferd Johns responds

Thanks for writing, Brian. It is very possible that the 1979 O'Day had plywood-cored decks, or it is possible that plywood was used only under hardware, as O'Day sometimes did. Oftentimes, builders made construction and materials changes to models over a production run of many years. I do not have a 1979 O'Day ad, but all of the factory literature I found referred to balsa-core construction, and the 1983 test boat, *Sophie*, definitely had balsa core where there was no factory-installed hardware. As for the draft, I'm pretty confident in the number I reported, 2 feet 3 inches from the bottom of the keel to the waterline. It's supported by the design drawings. Could it be that the 18 inches you're referring to is measured from the bottom of the hull to the bottom of the keel? Regardless, you're right about the rudder drawing more than the keel. I mentioned in the review that this is a challenge for *Sophie*'s owner, and he's especially careful when powering in shoal water.

–Ferd Johns, Whidbey Island, Wash.

Sailing as therapy

Several nights a week in the winter of 2009, my 5-year-old son Dakota sat on my lap after dinner while we scoured the internet looking for the ideal small cruising sailboat. We had moved north to Lake Superior from Madison, Wisconsin, but shortly after we'd settled in, my health collapsed. I had been a canoe and Nordic skiing competitive athlete but suddenly could not climb stairs.

Maybe I could still sail. I searched the internet for months until my wife said, "What are you waiting for?" Encouraged, I focused on the Nor'Sea 27, had three surveyed, but rejected them all. Two days later, I found *Blue Moon*, a 1990 Nor'Sea 27 in Seattle. She had an almost-new engine, had sailed to Hawaii and Alaska under previous owners, and was well-equipped. Interior photos, however, showed her to be a mess.

I found a surveyor, made a favorable deal, and contracted an empty truck coming back to the northern Midwest. Five days later, *Blue Moon* arrived at our local boatyard just as advertised — very good condition, but a mess down below: mold, diesel heater fumes permeating everything, and empty liquor bottles in the bilge. With a big effort from the boatyard, Bingham Boat Works, she was launched in August 2009.

Memories soon started to build. My son turned 6 that summer and was fascinated by it all — this magical propelled-by-wind floating playhouse with two cabins, seagulls that soared above us, and the feel of being on the planet's greatest inland sea looking back toward the town in the distance that had become our new north-country home. We went to *Blue Moon* several afternoons a week, and there was a restorative feel to being offshore on the big lake. It wasn't just the glow of happiness in my son's eyes, or the peals of laughter when we made up stories about the seagulls. It was a tangible life force. Something real and living came from those deep clear waters and enriched the energy of body and soul.

and bendy rigs

In 2011, we daysailed *Blue Moon* 42 times. By the eighth season, the summer of 2016, our little ship was fitted out for serious voyaging. Dakota (in the photo) was 13, and by July he was able to raise and reef the big mainsail by himself.

I eventually found a Chinese clinic on the West Coast that had a reputation for turning around difficult cases, and by 2016's end had made good progress. Dakota and I were planning to cruise nearby islands, the North Channel, and the north shore of Superior, where I had so many memories of wilderness canoeing. There's no denying it: a dream is worth chasing, especially if it involves a boat.

So when you add up your maintenance costs for the year, change your accounting methodology. Don't divide the maintenance total by the number of times you went sailing. Instead, add to that the number of times you hung around the marina and met interesting people, read a book in your boat's cabin, or just got away from your desk and daily routine. Any sailboat that floats reliably can provide the magic to take us away from our stressed, too artificial world and reconnect us to the nurturing spirit of nature's waters, whence we all came. That's what *Blue Moon* taught me.

–Frank Farwell, Marquette, Mich.

Thumbs up from an engineer

I really liked Rob Mazza's story about rudders ("The Transom-Hung Rudder," January 2017). As a structural engineer, I know all about section modulus, and how loads can sneak up and stress structures in unexpected ways. I shall now view my lower gudgeon with suspicion.

–C. H. "Chas" Hague, Des Plaines, Ill.

Bendy rigs

In the March 2017 issue, the subject of sailing under jib alone is discussed (Mail Buoy, "Sail choice and rudder loads"). Perhaps this could be of concern when good old raceboats with lightweight rigs are converted to fast cruisers. Some boats had rigs that needed the main set to damp the mast to prevent the spar inverting, failing by bowing forward.

–Jay Paris, West Bath, Maine

Rob responds

Jay raises an interesting point with regard to lightweight spars on IOR raceboats from the 1970s and '80s. A number of these boats had what were called 80 percent rigs: they were designed to stand up in 80 percent of racing conditions, assuming that the worst 20 percent would seldom be encountered. These spars usually had triple or quadruple spreaders to shorten the transverse panels while relying on double running backstays to support the mast fore and aft. In that respect, the mainsail was not essential to supporting these rigs when the runners were set, although we did worry about the location of the headboard when reefing. We liked to locate the headboard adjacent to spreaders so at least the transverse column was not compromised. So, yes, Jay's concerns are justified, if the runners are eliminated, but these boats have many other potential drawbacks when converted to cruising, not the least of which would be excessive draft, dubious stability, and lightweight construction.

–Rob Mazza, Hamilton, Ontario

A fixer-upper gets a new home

Thank you *Good Old Boat* for placing my ad on the Fixer-Uppers page of your website! I received a great response and have now donated my 1977 Islander 28 to a local sailing club on her home waters at Grand Lake. They will put her back into sailing shape and then make her available to their members. This program encourages potential new members to join the club and to learn to sail on a variety of club boats before possibly investing in one of their own, and it also allows other sailors the opportunity to keep sailing without the cost and physical strain of boat upkeep.

–Tony Rodriguez, Grand Lake, Okla.

Good on ya, Tony. Subscribers can list their boats for free on the Fixer-Uppers page on goodoldboat.com (under the Resources for Sailors tab). The only stipulation is that you can't list your boat for more than $5,000. **–Eds.**

continued on page 51

Shawna Smith sent us this photo, at right, she shot from the deck of *Sea Monkey*, her and her husband's Hunter 28, of the 103-year-old lighthouse at Angels Gate in Los Angeles. "It's my favorite because we pass it on the way out and on the way back when we sail to Catalina Island, which is always a welcome adventure." Send michael_r@goodoldboat.com a high-res photo of your favorite aid to navigation. If we print it here, we'll give you a *Good Old Boat* shirt or cap, as we did Shawna.

BY JOE CLOIDT

Hunter 30

A good example of an early conservative Hunter

Starting in the early 1960s, Florida became a hotbed of sailboat designers and builders, particularly in the Tampa Bay area. While the energy crisis of the 1970s helped spur sales of wind-driven boats, the rise in oil prices also drove up the cost of materials for all production boats. Quality issues that plagued some builders and a series of economic downturns resulted in most of the dozen or so builders closing their doors. Hunter Marine was one of the few that survived into the 21st century. To this day, Hunters are a common sight in many marinas, especially in Florida.

On early Hunter models, most systems and gear were fairly basic by today's standards and most will need to be upgraded. But for a DIY sailor who doesn't mind investing a little sweat equity, working on an older Hunter can be fun and rewarding . . . although at times frustrating.

Except for the frustrating part, this was exactly what longtime friends Nancy Knobbs and Steve Lambert had in mind when they bought *Boundless*, a 1981 Hunter 30. Nancy and Steve were co-workers when they discovered their mutual interest in sailing, and eventually agreed to split the cost of purchasing and maintaining a used sailboat. *Boundless* was perfect for them, a boat with good bones that they could learn how to fix and maintain while also enjoying local sailing on the east coast of Florida.

Nancy is no stranger to sailing. In the 1970s, her family sold their house and moved aboard *Tanaquill*, a 42-foot Abeking & Rasmussen double-ended ketch. They cruised down the East Coast and worked their way through the Caribbean to the Leeward Islands before heading west to the Panama Canal and the West Coast. Nancy is currently Commodore of the East Coast Sailing Association. Steve has enjoyed boating for many years on the local waterways while crewing on friends' boats, often entertaining the crew by singing British sea chanteys. He wanted to get more involved in sailing and completed an American Sailing Association (ASA) certification

Nancy Knobbs and Steve Lambert sail *Boundless*, their 1981 Hunter 30, on the Banana River, near Cape Canaveral on Florida's east coast, on facing page.

The T-shaped cockpit, at left, which was introduced in 1980, is comfortable but on the small side. While the design makes it easier to get around the Edson pedestal and wheel, it cuts the benches in two, making it difficult to comfortably stretch out for a nap. The cockpit coamings are tall, giving good back support and some protection from spray. Storage lockers are located under the benches and helm seat. The engine controls are within easy reach of the helm.

The chainplates are mounted in the middle of the narrow sidedecks, above right, so moving around the shrouds requires some gymnastics.

On smaller sailboats, creating room in the interior often requires giving up some space on deck, and this is true of the H30. Some owners feel that the foredeck is small but adequate for anchor duty, at right. An anchor locker at the bow is large enough to hold two complete sets of ground tackle. *Boundless* has a Danforth-type lightweight anchor with 10 feet of chain and 100 feet of ½-inch nylon rode, which is adequate for Florida. Aluminum cleats are fitted at bow and stern. A previous owner added midships deck cleats and upgraded the dockline chocks at the bow.

class while on a charter vacation in the British Virgin Islands.

History

Hunter Marine was formed in 1972 by John and Warren Luhrs, who grew up building powerboats with their father in New Jersey. Warren was a sailor and realized that their building process could also be used to construct sailboats in a cost-efficient way. He raced in a small fleet with John Cherubini and commissioned him to do the design work for their sailboat line.

John Cherubini had studied naval architecture and, along with his brother, designed and built small runabouts in the 1950s and '60s. His first design for Hunter Marine, in collaboration with Bob Seidelmann, was the Hunter 25. John's next designs were the Hunter 30 (H30), in production from about 1973 to 1983 with more than1,000 built, and the Hunter 27. His son, John Jr., helped with the design, production, and office work. The Cherubinis went on to design the Hunter 33, 35, 36, 37, and 54. After John Sr. passed away in 1984, Hunter's design work was handled by a different in-house team.

Hunter's goal was to keep costs low by high-volume production, assembly- line processes, and making very few changes in a boat's design. Hunter introduced innovations such as the arch over the cockpit for the mainsheet traveler and the B&R rig with swept-back spreaders and no backstay.

Peter Marlow bought Hunter Marine out of bankruptcy in 2012. He operates the company as Marlow-Hunter under a different business model that focuses on building boats in smaller numbers but of higher quality.

Construction

Construction of the H30 is fairly standard for production boats from the early '80s. The hull is a solid fiberglass laminate, while the deck is cored with balsa except where plywood is substituted in high-stress areas around deck hardware. The hull-to-deck joint was made on an inward-turned flange on the hull to which the deck and an aluminum toerail were through-bolted. Non-skid was not molded into the fiberglass deck but was applied with a grit-filled paint. On older boats it will probably need refreshing.

Water intrusion around the deck mast step can lead to rot in the core. Another area of concern is in the bilge, where the aluminum compression post under the mast rests on a fabrication of 2-inch box-section steel tube glassed into the hull bottom. Owners have

The main cabin, far left, is comfortable with its 6 feet of headroom, but the upper frame of the sliding door in the main bulkhead presents a challenge to anyone taller than 5 feet 4 inches. Both settees are long enough to serve as berths, and the port one slides out to form a double.

Large opening portlights and the white inner liner brighten the cabin and its varnished teak cabinetry, trim, and bulkheads. Two opening hatches in the overhead let in more light and catch the breeze. Teak-and-holly veneer is used on the cabin sole. Many drawers, hatches, shelves, and cubbies provide plentiful storage throughout the interior.

Enough provisions for a short cruise can easily be stowed in the galley, above right, which has the basics — a sink, icebox, and stovetop. The icebox is fairly large but does not appear to be well insulated, which is a consideration when adding refrigeration. The alcohol stove on *Boundless* has been removed and a wooden cutting board installed in its place, which gives needed countertop space. Nancy and Steve cook on a portable natural gas camping stove.

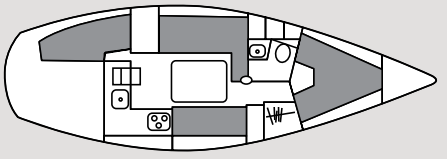
reported poor fiberglass work in this area and severe rusting of the tube.

The H30 was offered with a choice between a 4-foot-draft keel and a 5-foot 3-inch-draft keel. However, the listed displacement and ballast, which is lead, is the same for both versions, so the shoal-draft boat is likely more tender than the deep-draft version. On the shoal-draft model, the skeg is almost as deep as the keel, which increases the risk of rudder damage during a grounding.

Rig

The H30 has a simple masthead rig with a deck-stepped aluminum mast and single spreaders. The backstay is split to provide headroom for the helmsman. A hanked-on headsail was standard equipment, but *Boundless* now has a 135 percent genoa on roller-furling for ease of handling. Main

Hunter 30



Designer:	John Cherubini
LOA:	30 feet 5 inches
LWL:	25 feet 9 inches
Beam:	10 feet 2 inches
Draft	
Deep:	5 feet 3 inches
Shoal:	4 feet 0 inches
Displacement:	9,700 pounds
Ballast:	4,100 pounds
Ballast/disp. ratio:	.42
Sail area (100%):	453 square feet
Sail area/disp. ratio:	15.9
Disp./LWL ratio:	254

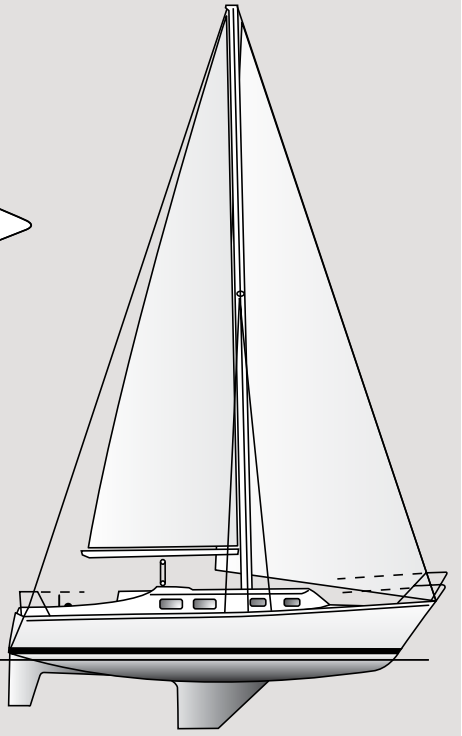


ILLUSTRATION BY RICK BEDDOE

The quarter berth, above, while adequately wide, has little headroom and is difficult to get into around the navigation station, which itself is not a comfortable place to sit. The AC/DC electrical panel is located there along with additional instruments, radios, and power outlets. The wiring behind the panel would be considered marginal by today's standards and some owners report intermittent electrical problems due to corroded wires and crimp terminals. The small overhead light fixtures could use upgrading.

The V-berth, above right, is comfortable for two shipmates and has decent headroom and foot space. The bulkhead is covered with a textured vinyl fabric that keeps the cabin light but can be difficult to clean. Teak ceiling on the hull sides is a nice accent and keeps sleepers from coming into contact with the hull.

The head, at right, has good elbow room and can be closed off from the main cabin and V-berth. It's set up for a shower with a molded floor pan and a hose attachment to the sink faucet. A solar fan has been installed on *Boundless* to keep the air moving. A large hanging locker with a shelf on top is opposite the head.

and jib halyards run inside the mast and are led back to line stoppers and two Barient #10 winches at the aft end of the coachroof. A short traveler manages the 197-square-foot mainsail. The jibsheets run through snatch blocks that attach to the aluminum toerail and then to Barient #22 winches on the cockpit coamings. While the snatch blocks allow plenty of fore-and-aft adjustment of the sheeting position, their distance outboard does not allow the tight sheeting angles needed for good pointing ability upwind.

Accommodations

The sales brochure describes the H30 as "a very complete liveaboard-sized cruiser with every comfort and convenience." This was a big selling point for the H30 — you got a lot of boat at a reasonable price. There is only so much room in a typical 30-foot sailboat, but the Cherubinis did a good job of packing in a lot of features down below, although some work better than others.

Both sinks, galley and head, are provided with pressurized hot and cold water. The freshwater tank holds 33 gallons and the water heater 5 gallons. The icebox and shower both drain directly into the bilge, which could lead to a stinky boat. Plumbing for the head includes a Y-valve for discharging overboard, where legal, or into a 5-gallon holding tank under the V-berth.

Engine

Through its production run, the H30 went through a progression of increasingly larger engines, starting with a 12-horsepower Yanmar and ending with the 18-horsepower model. Although the boat is not heavy, the larger engine helps when motoring into wind and chop. *Boundless* has a raw-water-cooled 13-horsepower 2GM; older raw-water-cooled engines that have lived in salt water can be subject to overheating as a result of deposits that build up in the coolant passages.

Access to the front and top of the engine is gained by removing the companionway ladder and a hatch in the galley counter. It's tight on the sides, and working on the rear of the engine and stuffing box is a job for a contortionist. The 12-gallon fuel tank is located under the cockpit sole.

Some owners have replaced the two-blade propeller that came as standard equipment with a three-blade for more thrust. One owner states his H30 has "wicked" prop walk to port in reverse but others say it's manageable. The propeller shaft is supported by an external strut. Due to the proximity of the rudder skeg, removing the shaft, should that ever become necessary, would require pulling out the engine.

Under way

Our test sail was on the Banana River, just north of Dragon Point, in light winds that turned gusty, blowing up to the mid and upper teens. Winds on the east coast of central Florida generally

are in the region of 10 to 15 knots, which suits this boat well, especially at the higher end of the range. As we left the dock, the prop walk to port was noticeable. With the running rigging led aft, raising the sails from the comfort of the cockpit was easy and we were soon under way.

The H30 is not a light-air performer, but *Boundless* picked up speed quickly when the wind ramped up. Although, with the shoal-draft keel, she tended to heel over in big puffs, I never felt that we were out of control.

When the wind pipes up above 15 knots, it's time to start furling the headsail. Pushing too hard or not easing the sails in a gust creates weather helm and signals it's time to adjust course or trim. *Boundless* comes about easily, neither losing too much speed nor falling off before settling in on the new tack. The helm feels responsive and balanced, and the boat will sail itself when the sails are properly trimmed. While the H30 is an older design, it actually performs very nicely and is pleasant to sail.

PHRF ratings for the H30 vary considerably; from 174 to 204 seconds per mile, depending on keel and rig (Hunter offered a tall-rig version). Most Catalina 30 fleets rate 180 to 192. The much racier J/30 is 144.

Conclusion

John Cherubini Jr. often called the early Hunter line "the Chevy station wagon of boats" and this pretty much describes the H30. It's not a racer, but it sails reasonably well and, with some rigging upgrades, can hold its own against its peers for local beer can racing. It's not a bluewater cruiser but is a comfortable boat on which to load up the family for a weeklong cruise. Nancy and Steve say *Boundless* has proven to be a safe and fun boat for taking friends and family on daysails. Judging from online activity, it remains popular, with several active member forums.

A web search will show H30s listed for sale on every coast and on inland lakes. Prices range from around $9,000 up to $12,000 but can run higher for a boat in excellent shape. Whether it's in Bristol condition or in need of TLC, a Hunter 30 can still be thought of as "the affordable fantasy."

Joe Cloidt is a sailor, writer, filmmaker, tinkerer, and electrical engineer by trade. His current boat is Desire, *a 1988 Pearson 31-2 that he sails on the Indian River Lagoon on the central east coast of Florida. Joe also enjoys charters in far-off locations and the occasional cruise to the Bahamas when between jobs. Although mostly a cruiser, Joe crews on a J/30 at the local yacht club for the Friday-night Rhum Races.*

Comments from owners of the Hunter 30

The boat has proved to be very well built. She is not great in light wind and doesn't point as high as I would like, but when the wind picks up to 15 knots, she is in her element. She is very forgiving and really fun in a stiff breeze.

The cockpit arrangement is OK, but it's not easy getting around the wheel. When singlehanding in a stiff breeze, I stand in front of the wheel when tacking so I have easy access to the winches. The mainsheet traveler is short, so I tend not to use it a lot unless I have crew on board.

The interior has great headroom and plenty of storage. Access to the engine is OK. Moving the fuel filter to the front of the engine made maintenance much easier. The Yanmar diesel, while slightly underpowered, has been very reliable.

–**John Streatfeild,** Lake Guntersville, Alabama

Last summer, I helped a Sea Scout ship take possession of a Hunter 30 that needed significant work. My survey revealed many issues.

All of the through-hulls were dubious at best. The factory had installed gate valves, and all of them were frozen, some open, some closed, some you couldn't tell. The stuffing box was also original; the rubber boot was horrifying to contemplate.

The cabintop and deck had developed some soft spots. Several repairs had been made to the cabintop, with varying success. Water had entered the core via stanchion mounts and pretty much anywhere somebody had drilled a hole. The backing for the deck-stepped mast seemed sound, but the material supporting the compression post had decayed, allowing a compression to occur belowdecks.

I like the slotted aluminum toerail; it opens up many options for sheeting locations. There is no genoa track, so this is a must. The bow cleats seemed to be poorly backed up. There was no anchor locker, so the anchor was stored in the cockpit locker.

–**Erik Williams**, Havertown, Pennsylvania

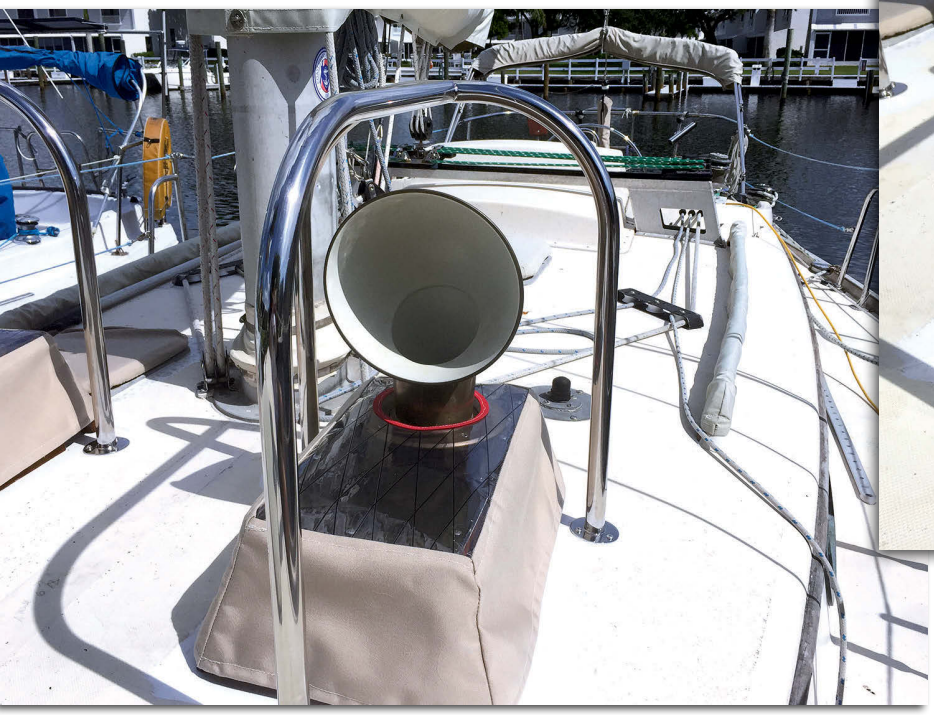
We owned a 1981 Hunter 30 for almost 20 years. We replaced a lot of the original equipment but found it all pretty standard. Hunter used brand-name components and pretty much all of the replacements were easy. Most of what they used is still available even now. This may not seem like much of a comment, but over time you appreciate that whatever you want seems to always be for sale in the local marine store, and you become a believer in the merits of good standard components.

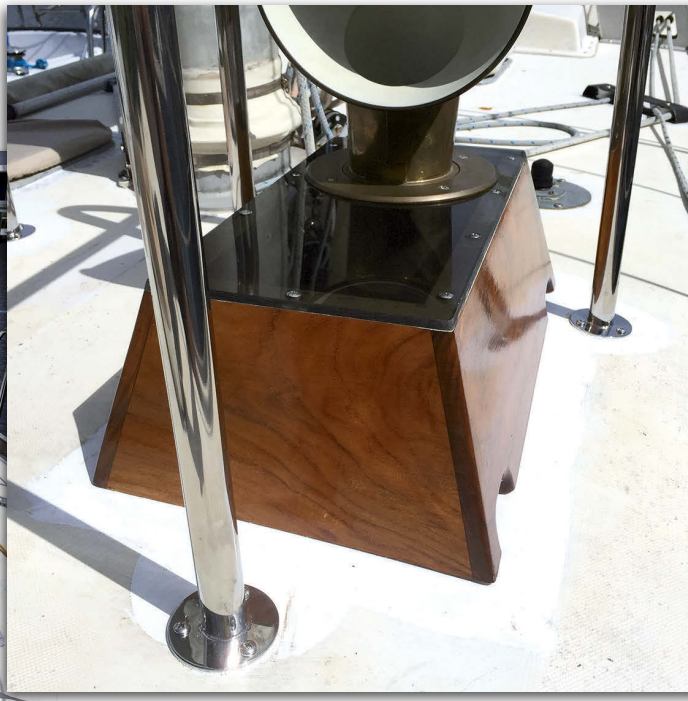
I liked the solid fiberglass hull with no core to go bad. We had one small spot, about 6 square inches, in the sidedeck near the cockpit coaming that was porous. Otherwise, everything was great. I liked the non-slip surface they applied and painted it once or twice with gray Interlux topside paint. Not bad for 20 years' use. The original Gray portholes are not very good over time. We had frequent leaks and problems.

–**Steve Ruell**, Canaan, Maine

The rear deck and cockpit does not drain well. I had to add drain holes and attach them to the scuppers. There is still water in the cockpit when it rains.

–**Ray Montondo**, Watkins Glen, New York





When less than perfect is bright enough

Making peace with varnish

BY JOHN CHURCHILL

About an hour after I put what I hoped was the last layer of varnish on some of *Nurdle*'s brightwork, it started to rain. The rain was forecast, but I had hoped it would hold off until later. I had taken a chance but, although I was disappointed, I was not distressed. That's where I am in my relationship with brightwork.

While I like the look of varnished wood, I long ago gave up on trying to make my varnishing fit for display in fancy boating magazines. Instead, I have made use of shortcuts to free me from being a slave to my brightwork.

My approach to varnishing evolved while I owned a boat with mahogany exterior woodwork. Teak may be left natural, oiled or sealed (with a product like Semco), protected with a hybrid finish (such as Cetol), or varnished. Mahogany blackens when moisture gets into it, which meant I had two choices for protecting it: paint or varnish. Because the woodwork on that boat was extensive, maintaining it was quite a task. Being lazy at heart, and because I'd rather sail than varnish, I found some tricks to ease the time and effort required to keep it bright.

First, I had to develop a proper attitude toward brightwork. The perfectionist in me seeks a flawless finish. But realizing that maintaining brightwork is a journey with no completed-project destination allowed me to accept some imperfections — a flawed coat of varnish still looks better to me than most alternatives. I threw out the idea of a "final layer" in favor of a "current topcoat" that would, in time, be sanded and coated again. Once I accepted this approach, bugs, dust, and brush hairs bothered me less. I also allowed myself to varnish in less-than-ideal weather conditions, so I didn't stress as much over timing the work. I came to understand that there are very few varnish errors that cannot be fixed with a little sanding and another coat.

A technique evolves

Prior to adopting my new brightwork mindset, and still in search of that perfect "final layer," I once bought a very expensive brush. If I'd used it every week, it might have been worth the outlay, but cleaning it thoroughly was a nuisance and eventually I did not get it quite clean enough and it was ruined. I now buy a 36-count box of 1-inch chip

John's showpieces for his brightwork are his Dorade boxes, top of page. He protects their luster under homemade covers.

John says the grabrail on the cabintop is about 3 years old, at left, and has been recoated once, but the eyebrow on the cabin side is due another coat. The trim around the cockpit cubby, at right, is the same age as the grabrail. The Velcro tabs secure its protective cover.

brushes at Harbor Freight for less than a quarter of the cost of one fancy brush and pitch them when I'm done with them. I pluck loose hairs prior to using them, and they lose a few more bristles along the way, but I no longer worry about ruining an heirloom brush (and I'm not sure the end result looks any different).

Regardless of the brush, brushing technique is important: I go from wet to dry, apply thin coats, and resist the temptation to touch up missed spots. I don't try to apply a thick coat of varnish as doing so only creates drips and sags.

Brightwork mounted on non-skid creates a significant nuisance when masking. It's impossible to effectively mask an uneven surface as tiny gaps are inevitable and allow varnish to wick beneath the tape, making a mess. I've used a 3/16-inch-wide screwdriver to scrape off the non-skid pattern at the base of the woodwork, leaving a smooth gelcoat perimeter for the tape to adhere to and prevent wicking. Whether or not I mask when I varnish, I try to lay a millimeter or so of varnish right onto the fiberglass. I think this helps with edge adhesion and slightly deters water intrusion under the piece.

As my brushing technique has improved, I find myself masking off adjacent areas less often. I weigh the time that must be spent masking to allow for quicker brushwork against the extra time I would spend brushing more carefully without the masking.

To strip or not to strip

If varnish is maintained, it shouldn't have to be removed. Only rarely should it need to be stripped to bare wood, but when that does become necessary, many people think the only way is to sand it off. When someone showed me how effective heat is, I lamented the many hours I had spent sanding old varnish off wood. Once softened, varnish is easy to scrape off. The trick is to maintain a sharp edge on the scraper. In the days before gelcoat, heat was used to remove old layers of paint from wooden boats. Blowtorches have caused many a boatyard fire, so I use a cheap electric heat gun.

When it does become necessary to strip the varnish, I remove the piece from the boat if I can. That makes the work easier. If the wood itself is badly deteriorated, I might fabricate a new piece rather than waste time trying to sand it smooth.

Brightwork is a common topic of conversation around the docks and I'm often asked, "How many coats of varnish did you apply?" I think that if a finish is protected from the sun, just a few coats are all that's needed. If I apply the layers within a couple of days of each other and the surface still smells like varnish, I typically do not sand between coats unless a coat was rained on while wet or there is another unacceptable defect. Otherwise, the new layers seem to bond acceptably.

If the piece I'm varnishing is off the boat, I apply three coats and then plan to follow with a topcoat to fix the inevitable scratches that result from reinstalling it. I find that the durability of three to four coats is fine, and that any improvement in the finish appearance after the third or fourth coat is minimal. After only a few years of

maintenance, I eventually wind up with the seven to 15 coats recommended by the perfectionists.

Protection

A key part of my varnishing program is minimizing the deterioration of the finish. Besides being pretty, varnish is there to protect the wood from moisture and sunlight. The main enemy of varnish is ultraviolet rays. With good UV protection, the finish will last several years before it needs recoating. Even before beginning a brightwork project, I make a sun cover. I own a Sailrite sewing machine and have found helpful ideas and products in the company's catalog and on its website.

While I try to make my sun covers attractive, my only requirement is UV protection, so the occasional crooked seam is acceptable. Most covers are very simple to make, like sewn cuboids for Dorade boxes or a folded strip for handrail covers (see "Grabrail Guardians," January 2017). Because I do not like making holes in my boat for snaps, I use self-adhering Velcro pads.

With effective sun covers, even in South Florida, varnish can last several years without recoating. But for sun-exposed brightwork, a close look will show that the gloss is gone usually within six months or so. But when the time comes, recoating is easy. It starts with a quick sanding with 120- to 180-grit paper to remove the bugs, brush hairs, and other blemishes from the previous coat and give some adhesion to the new layer. While I do my best to remove sanding dust before recoating, it is not too objectionable if some winds up in the finish. I apply two coats in quick succession and things are beautiful again. Since setup and cleanup are the same for a big or a small project, I try to do all the brightwork at once.

Going against dogma

Another dockside conversation starter is, "Your brightwork looks nice. What brand of varnish do you use?" I have used most of the major brands and find them to be compatible and reasonably equivalent. Brightwork problems can rarely be blamed on the product. Tending to be frugal, I buy whatever is on sale, but I do stick to marine varnishes. Trying to save money on a non-marine product is unwise.

If it's varnished, at left, it needs a cover, lower left. After removing the skin, John thinned the varnish in the can, below, and used it to coat the block under the clutches.

I will even use varnish after it has skinned over in the can. Many perfectionists would throw it out, but I find it works satisfactorily after I peel away the skin, thin the varnish, and let any debris settle.

By lowering my standards a bit, keeping things covered, and adjusting my attitude, I have made peace with varnish. My brightwork is acceptable to me — and it is pretty enough that dock walkers often ask me how I keep it up.

John Churchill grew up a boat-crazy kid in Indiana. He built a raft at age 6, sailed Snipes as a teenager, and worked his way toward salt water and bigger boats as an adult. He has sailed a Cape Dory 26 singlehanded to Bermuda and back, and a Bristol Channel Cutter transatlantic with his father. Now in Florida, John races and daysails Nurdle, *a Bristol 35.5 (and former repo) that he's rehabbing for extended post-retirement cruising.*

Fresh

Using à la carte components to make a watermaker

BY PATRICK BOUCHET

Living aboard almost full time as we do, what a treat it is to have an endless supply of fresh water we make ourselves. With a watermaker, we didn't need to ration water during our recent Atlantic crossing from France to the U.S. East Coast. We've since spent weeks at anchor without having to go to marinas. We can shower as often as we want (which, despite what you Americans think, we French like to do more than once a month). While at anchor in George Town, Exuma, Bahamas, we smugly sipped wine in our cockpit while watching fellow cruisers queue up at the only water tap so they could lug heavy jerry cans back to their boats in dinghies.

Since we could not afford the commercially available watermakers, none of this joyful self-sufficiency might have been possible. But my wife and I built *Noulica*, our 43-foot sailboat, ourselves, so it didn't seem like too daunting a task to make our own watermaker. It is, after all, simply an assembly of pipes, filters, pumps, and valves.

After we told our American friends Sandy and John Larson we wanted to build a watermaker, they sent us a copy of a two-part *Good Old Boat* article about doing just that ("How to Make a Watermaker" by Randy Baker, May 2010 and July 2010). This article laid out the project quite simply. We just had to find providers for all the parts we'd need. I decided to install the watermaker aft of the engine, under the berth in the aft cabin, where we have good access to the propeller shaft and there was plenty of unused space.

A watermaker that works by reverse osmosis (RO) is quite simple. At its heart is a semipermeable membrane (commonly called a reverse-osmosis membrane) that allows only water molecules to pass through it. When seawater is pushed at high pressure against one side of the membrane, molecules of water pass through but molecules of sodium chloride, or salt, do not. Thereafter, it's simply a matter of collecting the fresh water and discarding the residual brine.

The natural propensity for water that contains no solutes is to pass through a semipermeable membrane to reduce the concentration of solute on the solution side of the membrane. This process, called osmosis, proceeds even against high pressure. To get a decent flow in an RO system, by forcing water molecules in seawater to pass through the membrane against the osmosis that wants the water to flow in the other direction, requires pressure of about 800 pounds per square inch.

That pressure is easily achieved with a high-pressure pump, but we first had to decide on a means of driving the pump, as that would determine the type of pump we needed to buy. High-pressure pumps can be belt-driven off a boat's auxiliary or by a dedicated electric motor. Using the diesel engine would have required us to lift the engine and build a special support for the pump. We preferred the simpler solution, which was to use an electric motor.

After securing parts and deciding on a location, the rest of making a watermaker is plumbing. The best way to explain the system is to follow the water circuit, from where the seawater enters the boat to where the fresh water produced by the watermaker enters our tanks.

Intake through-hull

The through-hull via which seawater is drawn for the system must always be under water when the watermaker is operating, because it is not safe to send air through the high-pressure system. I installed our seawater intake through-hull at the bottom of the hull, behind the engine, where it stays immersed even when the boat is heeled. It is fitted with a seacock.

80-micron filter

Seawater making contact with the reverse-osmosis membrane must be free of oil and solid particles. After entering the through-hull, seawater passes through an 80-micron mesh filter, the first of three filters.

Low-pressure pump

Next, the water enters via a 3-way valve into a low-pressure pump, a 360-gallons-per-hour Rule bilge pump. Because the bilge pump is designed to suck water from the floor of a bilge, and not a hose, I machined a plastic adaptor to fit around the base of the pump and sealed it in place with epoxy. The adaptor has an intake pipe, which I connected to the 3-way valve. The low-pressure pump is there to pull seawater through the 80-micron filter, push it through the subsequent filters, and deliver it to the intake of the high-pressure pump. If the

water freshly made

high-pressure pump can be installed deep enough below the waterline that it always has adequate pressure on the intake side, the low pressure pump is not necessary.

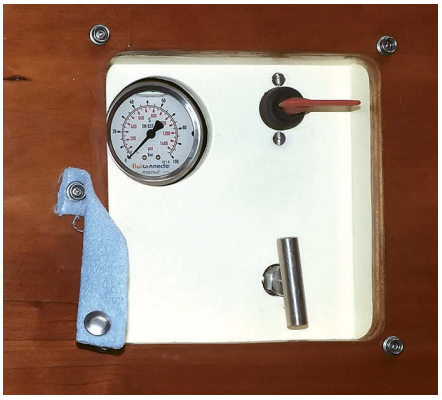
50-micron and 5-micron filters

From the low-pressure pump, water is piped first to a 50-micron filter and then to a 5-micron filter. Note that the 80-, 50-, and 5-micron filters are all mounted in like canisters of a type that's available in hardware stores worldwide. The filters, which are used in swimming pool filtration systems, are also widely available, though at prices that vary dramatically!

High-pressure pump

We were in France when I sourced all of these parts and built my watermaker, and I could not find a French company that sells a high-pressure pump. The pumps are commonly used in pressure washers but, in France, all pressure washers run on 220 volts AC and their pumps are directly coupled to the motors. Through an internet search I finally found Pressure Washer Authority in Texas, which offered free delivery of its TT951 pump to any address in the U.S. "Sorry, we don't deliver to Europe, but we can send your pump to any UPS center in the U.S. and you can arrange with them to forward the pump to France."

Instead, I asked our friends Sandy and John, who live near Minneapolis, to order the pump for me. They got a call telling them that the pump was not in Texas but, to their surprise, Minneapolis. It was delivered fast! They forwarded it and I had it a few days later. Then I learned that this pump was made in Italy. It had crossed the Atlantic Ocean twice before I'd even used it! There's globalization for you.

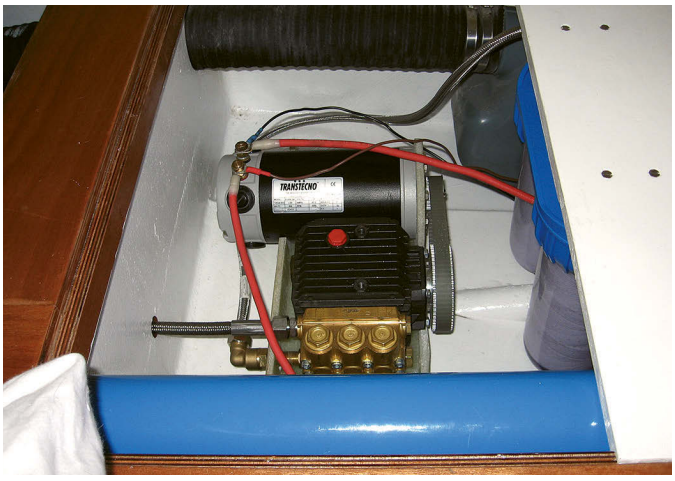


Electric motor

Noulica's electrical system is 24 volts DC. As I'm unwilling to run an inverter, I needed a 24-volt 600-watt (¾-horsepower) motor to drive my high-pressure pump. I wanted a permanent-magnet motor for its efficiency, and chose the Transtecno EC 600-240 motor, also made in Italy but available in France. I connected the motor and pump with a belt and used pulleys with diameters calculated to give the reduction ratio of 2.4:1 needed to drive the pump at the right speed.

Pressure vessel

The high-pressure pump delivers the filtered seawater to the pressure vessel that houses the membrane. I purchased the 2.5E1000N pressure vessel from Phoenix Vessel Technology, a British company. It's a big fiberglass tube (2½ inches in diameter and 40 inches long) rated to withstand 1,000 psi and designed to fit the reverse-osmosis membrane I planned to buy. The pressure vessel has two discharge ports, one for the fresh water ready to go into the tanks (this is at low pressure) and one for the brine, or wastewater (this is at high pressure).



***Noulica*'s watermaker is under the aft berth, on facing page. The filters are mounted on a board so they can be exposed for servicing, above left. The pressure pump is behind them, above right, and the blue cylinder is the pressure vessel that houses the reverse-osmosis membrane. Mounted on the control panel, at top, are a power switch (red) for the pumps, a pressure gauge, and a pressure-control valve.**

Reverse-osmosis membrane

There are not a lot of suppliers for this part. We use a Dow FILMTEC SW30-2540 membrane.

Brine discharge

On its way to being discharged overboard via a through-hull above the waterline, the brine passes through a valve we use to control the system pressure, which is measured with a pressure gauge. As the flow from the high-pressure pump is constant, reducing the flow through the valve raises the pressure in the system. I usually maintain pressure at 50 bar (725 psi), a little less than the nominal pressure for the membrane, which is 55 bar (800 psi).

But beware! The brine-discharge through-hull must be open before the watermaker is turned on or pressure will build in the system and something will explode!

We found a company close to our marina that stocked all the high-pressure plumbing, the pressure-control valve, and the pressure gauge. I mounted the valve, the pressure gauge, and the pump's switch on a control panel.

Resources

Pressure pump, model TT951
Pressure Washer Authority
www.pressurewasherauthority.com

Electric motor, 24VDC, model EC 600-240
Transtecno
www.transtecno.com/us

Membrane, model Dow FILMTEC SW30-2540
Available from several sources

Pressure vessel, model 2.5E1000N
Phoenix Vessel Technology
www.phoenixvessel.co.uk

Freshwater discharge

The fresh water that is the desired product of this system exits the pressure vessel at low pressure. A 3-way valve allows me to direct the fresh water either to the water tanks or to a port in the cockpit.

When we turn on the watermaker, we direct the water to the cockpit so we can see that it's flowing and we can taste it. When we are sure it is actually fresh, we switch the valve to direct the water toward the tanks. Another 3-way valve allows us to select which of *Noulica*'s two freshwater tanks will receive it.

Electrical

Except for the one electrical switch used to power the two pump motors, there are no electronics.

Simple and inexpensive

The total cost of our very simple design and very international watermaker was roughly $2,100, about one-fourth the price of a commercial watermaker that offers the same output of 60 liters, or about 15½ gallons, per hour.

We had our first opportunity to test our new watermaker while at anchor in Ponza, a pretty Italian island in the Mediterranean Sea. It worked right away! That was three trouble-free years ago. Today, we can't imagine sailing aboard *Noulica* without it. Maintenance is easy (see "Operating the Watermaker," at right). This year we plan to replace all four watermaker filters for the first time.

Patrick Bouchet and his wife, Françoise, have owned four boats since they began sailing in 1978. They built their current boat, Noulica, *from the ground up over a period of four years. They've cruised extensively in the Mediterranean and more recently the Atlantic Intracoastal Waterway and the Bahamas. They've crossed the Atlantic three times.*

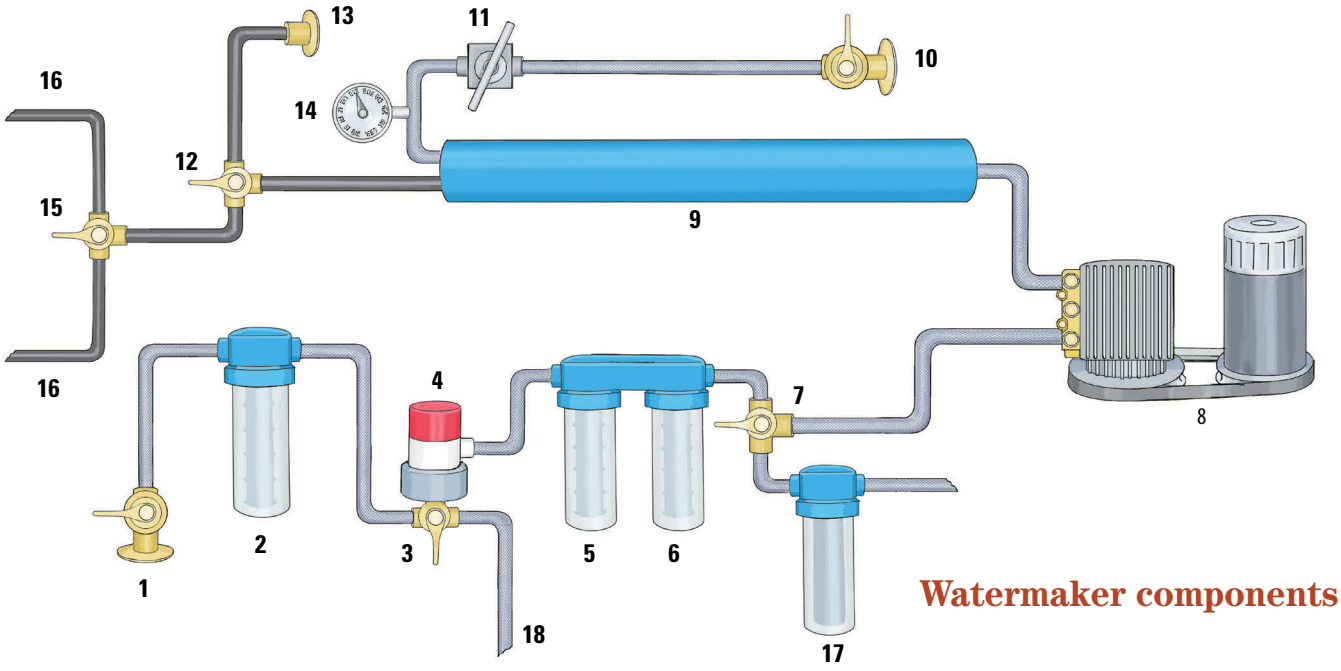
Operating the watermaker

Patrick and Françoise follow a set sequence of steps when operating and shutting down their watermaker. They flush the system with fresh water after each use and, when they don't plan to use the watermaker for an extended period, pickle the system with a solution of sodium metabisulfite, a chemical that's easy to find and commonly used to stop fermentation in wine or beer making. Pickling prevents bacteria from growing.

Starting

- Open the seawater intake seacock (1 on the diagram on the facing page).
- Check that the 3-way valve (3) is open between the 80-micron filter (2) and the low-pressure pump (4).
- Check that the 3-way valve (7) is open between the 5-micron filter (6) and the high-pressure pump (8).
- Open the brine discharge through-hull valve (10).
- Check that the pressure valve (11) is fully open.
- Check that the freshwater-output 3-way valve (12) is directing fresh water to the cockpit port (13).
- Flip the power switch to start the low-pressure and high-pressure pump motors.
- Check that seawater is flowing out the brine discharge (10).
- Slowly close the pressure valve with an eye on the pressure gauge (14), stopping when the pressure rises to 50 bar (725 psi).
- Taste the fresh water exiting the cockpit port (13). It should be fresh.
- Select a tank using the 3-way valve (15)
- Change the freshwater output 3-way valve (12) to divert water to the tanks.

ILLUSTRATION BY FRITZ SEEGERS



Watermaker components

1. Seawater intake seacock
2. 80-micron filter
3. 3-way valve
4. Low-pressure pump
5. 50-micron filter
6. 5-micron filter
7. 3-way valve
8. High-pressure pump
9. Pressure vessel
10. Brine discharge seacock
11. Pressure-control valve
12. 3-way valve
13. Cockpit port
14. Pressure gauge
15. 3-way valve
16. Hoses to water tanks
17. Carbon filter
18. Hose to pickling solution

Shutting down

- Change the freshwater output 3-way valve (12) to divert water to the cockpit port (13).
- Taste the water (it should still be fresh).
- Fully open the pressure-control valve (11) and watch the pressure fall on the gauge (14).
- When fresh water is no longer flowing from the cockpit port, flip the power switch to turn off the low-pressure and high-pressure pumps.
- Follow the steps below to either flush or pickle the system.

Flushing

Note: the purpose of the carbon filter on the freshwater flush circuit is to prevent any chlorine that might be in the freshwater tank from reaching (and destroying) the membrane in the pressure vessel.

- Make sure the pumps are not running.
- Change the 3-way valve (7) near the 5-micron filter so that the valve is open between the carbon filter (17) and the 5-micron filter (6).
- Use the boat's pressurized fresh water to push water into the system in the direction of the seawater through-hull inlet, thereby flushing the 5-micron, 50-micron, and 80-micron filters as well as the low-pressure pump.
- Wait about 20 seconds.
- Close the seawater intake seacock (1) so water flows in the direction of the high-pressure pump (8), thereby flushing the pump and membrane before fresh water exits the brine discharge through-hull (10).
- Wait about 5 seconds.
- Change the 3-way valve near the 5-micron filter (7) so that the valve is open between the 5-micron filter (6) and the high-pressure pump (8).
- Close the seawater intake and brine discharge seacocks.

Pickling

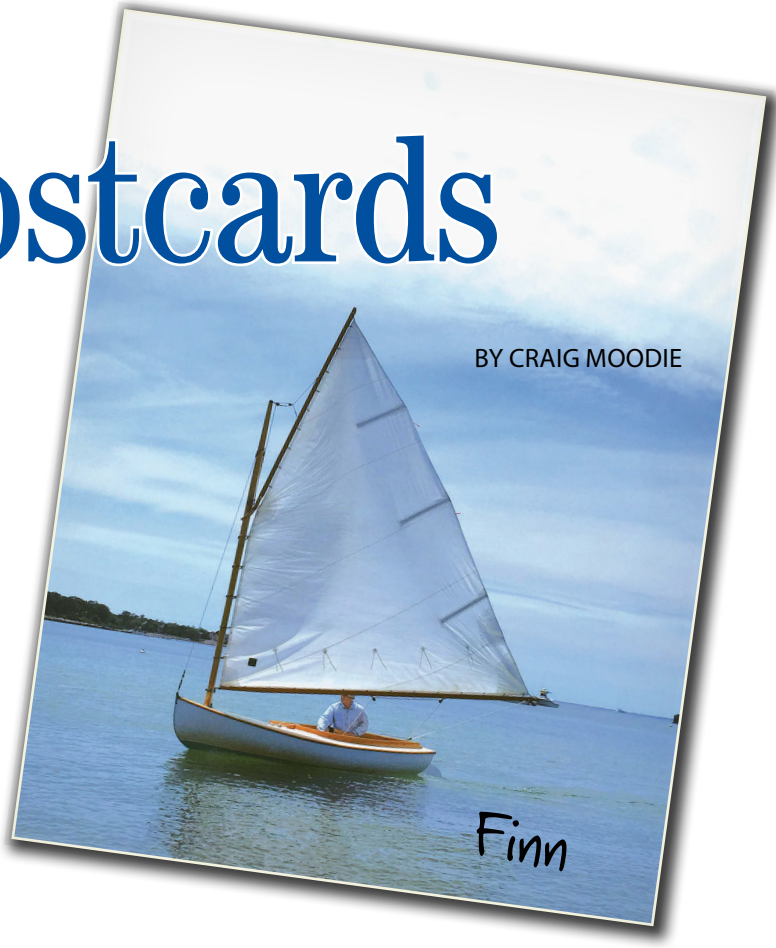
Pickling is only necessary when the watermaker will not be used for a fairly long period.

- Attach a hose (18) to the 3-way valve at the base of the low-pressure pump and lead it to a container of 20 liters (5 gallons) of a 1 percent (by weight) solution of sodium metabisulfite in water.
- Change the 3-way valve (3) at the base of the low-pressure pump so that it is open between the container of sodium metabisulfite solution and the low-pressure pump.
- Check that the pressure valve (11) is open.
- Check that the 3-way valve for the freshwater output (12) is open between the pressure vessel and the cockpit port.
- Check that the brine discharge seacock is open.
- Start the watermaker pump motors.
- Just before the tank of metabisulfite solution is empty (don't allow air to enter the system), turn off the pump motors and close the brine discharge seacock.

Catboat postcards

Scenes from a sailing season

BY CRAIG MOODIE



Friday, May 22

On the water at last! I step into the cockpit and feel *Finn* dip toward me as if in greeting. I scull away from the boat ramp past the pilings, months of fantasizing about this moment melting behind me.

Pier cleared, I hoist the sail, glad for the bite of the lines in my hands and the heft of gaff and boom. I sit down on the cedar planks and bear off. The sail snaps taut and the boat surges forward, wake burbling, tiller trembling, dinghy bounding behind.

We slip through the harbor at an easy heel, the sunshine toasty on the shoulders of my gray chamois shirt (some clothing habits from my commercial fishing days are hard to shake). Rounding the channel markers, we pass a cormorant, its beak clamped around a fish too large to choke down. An osprey peeps and lifts off its nest atop the light tower. Two terns flick past the nun, peering down at it as if on an inspection tour. We cut into the open bay, the only other boats a sloop way out by Cleveland Ledge light and a head boat idling off Fiddler's Cove.

I reach over to trail my fingers in the cold water. Absorbed in sky, water, wind, sun, and motion of the boat, I am my youthful self again, and the concerns of my graybeard's life dissolve like the cloud tufts behind us. We head for the mooring field across the blue-green shallows. I see only winter sticks and mooring balls. This is *Finn*'s eleventh season, and we'll be the first ones in the water once again. Rejoice!

Saturday, June 20

I wake up to cool sunshine and a 10-knot northerly scaling the royal blue and aqua water. I sense *Finn* drumming her fingers, but chores await and noontime rolls past before I brave the bracing water and swim out to her.

My son and his girlfriend want to fish and, with the freshening gusts, I decide to reef so we can maintain trolling speed. I love using *Finn* for her ancestral duties as a fishing boat. Her sweet lines embody the clan of sturdy working craft from which she's descended.

The farther out we go, the heavier the gusts blow, and we come about and reach back in with a bone in our teeth. Matthew has one strike before we moor, douse sail, and drop lines overboard. Jana's close encounter with a green crab turns out to be the only action of the day. No one cares. Fishing, chatting, laughing as they bait up with sea worms (he's going to vet school, she's in med school, they're both more interested in sea worm anatomy than their effectiveness as bait), rocking with *Finn* as she paces on her mooring, sipping ice-cold beer while watching the gusts crinkle the water and leaden streaks and swaths of cloud smear the sky . . . I hover in saltwater-borne bliss.

Friday, July 3

Passing a truck advertising Pilsner Urquell, my favorite beer, on the way down to the Cape must be a good omen. By noontime the northerly gusts ease and I wade out to *Finn* to take her out for a sail.

She nods as I approach, the sun beating down out of a spotless sky on my bare shoulders, the cool clear water only hip-high on its way to an astronomical low. I ghost back to the beach to pick up my wife, Ellen, and my mother-in-law, Janice. At 80, Janice is still game for a sail. The last of the gusts quits and I lead *Finn* out over the shallows. The water has become mercury-slick. But a suggestion of a breeze lifts us past the fangs of the rocks, black-backed gulls and cormorants standing atop them, the latter with wings outspread. Past the last mooring ball, we enter a zone of light air and laze our way from spot to spot — the oyster farm barge, Halftide Rock fringed with lime-green seaweed, the moored black-hulled Doughdish, her tanbark sails furled.

But the Pilsner luck runs out. Late in the afternoon, we learn of the death of a close friend's father, and our plans to spend the rest of Independence Day weekend knocking about in watery freedom crumble. Here's to life, then, and a toast to the boats that make it worth living.

Saturday, July 18

We sit at the edge of the water just after two o'clock, squinting against the strengthening sou'wester. Beyond Scraggy Neck, a gray ceiling darkens. Above us, filtered sunshine throws scintillas on the gray-green chop.

To sail or not to sail? The wind seems intent on outdoing itself with each puff. Beyond Halftide Rock the water dances with whitecaps and two sailboats in the open bay heel hard over.

From the west comes a bumble of thunder, helping me resist our temptress as she beckons to me from her mooring. My wife rises to spread out a towel and the wind kicks her beach chair over.

Spits of rain fall on us, and now a shower commences, cold enough to raise gooseflesh on my skin. Another roll of thunder resounds.

Then the rain fizzles, the clouds part, and sunshine bakes the chill out of me. But the wind keeps increasing. I wade out to *Finn* and climb aboard. Two of my brothers-in-law follow me, David to rake quahogs off the stern and Tommy in his kayak to deliver me a beer. Soon his daughter Celia swims out and climbs aboard, and we chat about the pros and cons of her spending a night on *Finn* solo. With the gusts building, I have to content myself with no sailing. (Am I getting softer as I get grayer?) But bobbing in the cockpit in the sun and shooting the breeze with kinfolk ain't half bad.

Sunday, August 2

My vow to rise at daybreak for a sail before racing home on the Cape Cod Speedway disintegrates. At six o'clock, in spite of the ruffled blue water and spotless blue sky I see out the window, I stretch back for a catnap and don't awaken till eight. Groggy and stiff, I debate whether to squeeze in a sail — a booming sou'wester kept us off the water all Saturday — or hit the road.

I pour a mug of coffee and go out onto the deck to watch *Finn* prance on her mooring. Sailing to me is the antithesis of deadlines — my life ashore is a gauntlet of them. To frog-march myself down to the boat, remove cockpit cover and

sailcover, hang rudder, insert tiller, drop centerboard, and hoist sail with only enough time to round the number 5 can taints one of the glories of sailing my little craft: the return to my youth when I was as footloose as a cloud, a young seadog skylarking aboard the sloops and yawls my family sailed on the Chesapeake, to Shelter Island and Block Island, Newport, the Elizabeths, the Vineyard, Nantucket.

Better to forgo it than to rush it. I finish my coffee, scan the bay with the old pair of field glasses (Kommandant brand, made in Germany) and bring *Finn* into focus. I swear I see her shake her head. Then she turns her stern to me, pointing her proud prow away toward the brilliance of the open bay. Something inside me wilts. I know a reproving look when I see one. Shame on me: I've disappointed a lady.

Saturday, August 29

One good sail deserves another. The previous evening's outing with Celia and my college-age nephew Ted fresh in my mind — the late sun dazzling, 7-knot southerly giving us a steady push, terns diving on boils of bait, another catboat tacking with us and trading compliments — I hustle down to the beach in the morning sunshine, swim out to my waiting vessel, say "Greetings, netop! ("netop" being an old New England term meaning friend), and sail back to collect a new crewmember, my niece Nina, Celia's elder sister, once a sprite who used to doze beneath the foredeck, now of the age to be applying to college.

We shove off in light air, sea scalloped, sun hot, shade cast by the sail cool. I scan the open water, the far shore floating in sharp relief, and see only one other sail. A few tacks here and there later — one to pass kindred spirit *Alcaduwi*, a Beetle making a late-season appearance on her mooring — and we return to pick up Ted. We sail to Lawrence Island, then beat out to Seal Rocks to glimpse the lighthouse on Wings Neck. Now the breeze has hit its stride, and the swells out here give us a rollicking ride.

We scream back in and pick up fresh crew: Celia (fast becoming a seadog) and my sister-in-law Julie. Ted remains

aboard, and we pound out in the late-afternoon glare, the chop lurching and squirming and foaming. Forecast: 5 to 10 knots. Reality: 15 gusting to 18. I lean my full weight against the weather helm, the seas douse us, we heel hard in the sizzling wake — glorious! A few more sporty tacks and we return to the mooring. I spend the shank of the afternoon quahogging in water as thin as I've seen it, thanks to the super moon, or sturgeon moon as Native Americans called it.

Finally I wade to shore. I plunk down in a beach chair, knee bruised, ankle cut, deltoid tattooed with a half-dollar-size black-and-blue mark, hands raw from handling wet line, fingers and toes saltwater-pickled and wrinkled. I'm euphoric.

Later that night, still rocking as I used to after returning from a long trip offshore, I peer off the porch at *Finn*, the moonlight on her hull making her look like a floating gull feather. She must feel satisfied. I know I do — a full day spent schooning around Megansett Harbor and Buzzards Bay, my equivalent of a successful passage of the Strait of Magellan.

Friday, September 18

Seven thirty. A windless morning. I'm in the dinghy pulling on worn oars. Wabi-sabi — the sensibility that imperfection and wear give objects and life deeper meaning — should have been the name of this little vessel, though we've always called her *Ringy Dinghy*.

Wistfulness should be added to that aesthetic: I'm towing *Finn* from the mooring field to the boat ramp to haul her out. Timing and obligations conspired against us, and we'll see no October sailing this year.

I watch her skim along behind, and I think of the season, now also behind us: the minor mishaps that bloodied elbows and swelled knuckles, the drafty days and doldrums, the laughs we had with friends and family members turned crewmates, the boats and birds and fish and skies, the quiet cruises when only *Finn* and the water whispered their secrets to each other, the swift arrival of September with its angled light, its chilly blue water. We round the breakwater, and I picture the months ahead: pining for the feel of the boat, poring over sailing magazines and nautical books to fill the void, gazing at pictures of seasons past. My youthful voice cries out: "Ship those oars! Climb aboard! Take a last sail out, back out into the bay!"

I look around. The water's a silver-blue gel, the wind still abed. Even the terns are gone.

I sigh, and keep on rowing.

Craig Moodie lives with his wife, Ellen, in Massachusetts. His work includes A Sailor's Valentine and Other Stories *and, under the name John Macfarlane, the middle-grade novel* Stormstruck!*, a Kirkus Best Book.*

A tour of the marina was illuminating

BY JOHN CHURCHILL

Insights on sidelights

My good fortune to live on a small barrier island in Florida is offset by the misfortune of full-time employment that requires me to commute to the mainland daily. My drive is actually fairly pleasant, with almost a third of it on a long causeway across Pine Island Sound. Due to long work hours, I frequently cross during darkness. This has given me plenty of opportunity to observe the navigation lights of boats navigating the sound. While some are bright and appropriately displayed, others have significant defects. I have even seen the red and green lights reversed.

All vessels are required to display navigation lights from sunset to sunrise and in restricted visibility. (See "Rules and Requirements for Navigation Lights," page 25). While oar-driven boats and unpowered sailboats of less than 7 meters (23 feet) in length might get away with the minimum of a white flashlight, most of our good old sailboats will have sidelights and a sternlight as well as a steaming light for use while under power.

The steaming light is almost always mounted on the forward face of the mast and the stern light mounting is typically straightforward. Placement of the red and green sidelights can be problematic. The foremost factor to consider, after ensuring red is on the port side and green on the starboard side, is visibility to other vessels. Size of fixtures, heeling under sail, and the potential for the lights to be obscured by sails must be taken into account.

Careful installation will ensure the lights are visible within the correct sectors. Reflected glare must be minimized to maintain the helmsman's night vision. It's also important that the lights be protected against damage from flogging sails and running rigging, mooring and dock lines, and fixed obstructions such as pilings. Accessibility is also a priority in case it becomes necessary to change a bulb under way.

***Nurdle*'s foredeck-mounted sidelights were underfoot and prone to damage, above. John replaced them with a combination lantern protected by the pulpit, at right.**

On *Nurdle*, my 1979 Bristol 35.5, the sidelights were mounted forward on the toerails. As individual lights, they required twice the current of a combined fixture. Being at deck level, they were often wet and were frequently stepped on by crew working at the headstay or the forward chocks. They also inhibited a fair lead for docklines and were prone to fouling the jib's furling line.

To fix a worsening leak at the hull-to-deck joint, I recently replaced the toerail. As the sidelights had significant shortcomings, I took this opportunity to re-engineer them. To help stimulate my thinking, I visited a local boatyard to look at alternative arrangements. What I saw (see the photos on pages 25 to 27) gave me ideas for how (and how not!) to make a better installation.

A satisfactory solution

I had a tube and plate welded across the forward part of *Nurdle*'s pulpit to support a combination light. An additional rod helps protect the fixture against damage from sails and running rigging as well as from impacts when docking. The higher, more forward location makes the lights more visible to other vessels, reduces reflected glare off fittings and sails, and ensures that they won't be obscured by sails. I selected the largest fixture that would reasonably fit. If this light ever needs to be replaced, a new mounting bracket can be fastened to the plate welded onto the pulpit

Feeding the wire up through the pulpit is always a challenge, but I was able to do it while the pulpit was off for welding. I left the wire plenty long at each end, and I ran a messenger string in case I ever need to pull a new wire. A sacrificial plastic loom protects the wire exposed outside the pulpit from UV degradation. A gob of silicone seals against water and immobilizes the wire against chafe.

Studying other installations allowed me to improve on the original installation greatly. I can now sail under a bridge at night knowing that unfortunates on their commute will not be disparaging my inadequate sidelights.

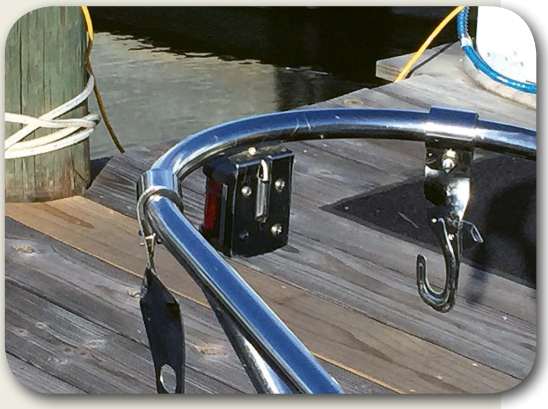
John Churchill's bio is on page 15.

Rules and requirements for navigation lights

The rules for placement and intensity of navigation lights are spelled out in Colregs Part C, Rules 20-23 and 25. They can be found in print in *Navigation Rules*, together with the United States Inland Rules, and online at www.navcen.uscg.gov/?pageName=navRulesContent and www.navcen.uscg.gov/pdf/navrules/navrules.pdf.

Sidelights: the good, the bad, and the ???

All the precautions needed when installing sidelights — proper visibility, protection from headsail sheets and dock structures, access to wiring — create obstacles to finding the ideal locations for them. Boatbuilders and boat owners have come up with all sorts of solutions, some of them better than others.

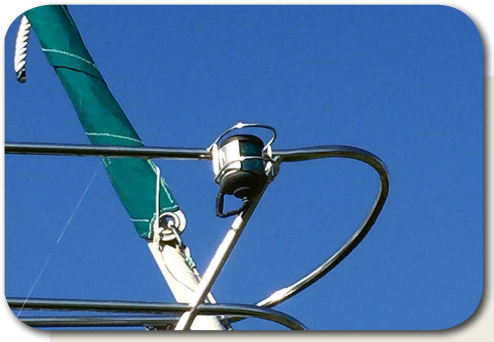


A bicolor light mounted on the forward rail of a bow pulpit is a common sight, at right. It is on centerline, forward of the sails, and unlikely to create glare. It is at some risk of damage during docking maneuvers and might get clipped if the anchor hangers are used.

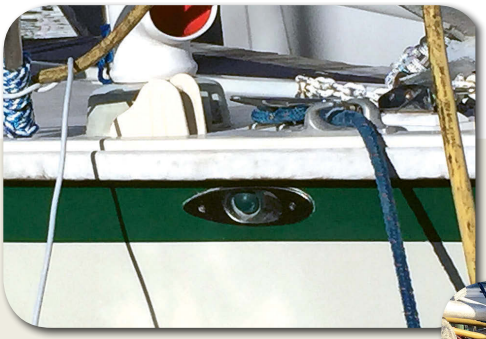
This lantern, at left, looks vulnerable to a rogue jibsheet in a mishandled jibe. Running a new wire around all those bends could create a headache.

The tip of the pulpit offers some protection to this large lantern, at right . . .
but this boat, below, is leading with its chin.

While the hockey puck light is well-protected, at right, it is close to the upper rail, which could create glare and possibly obstruct the light when the boat heels.



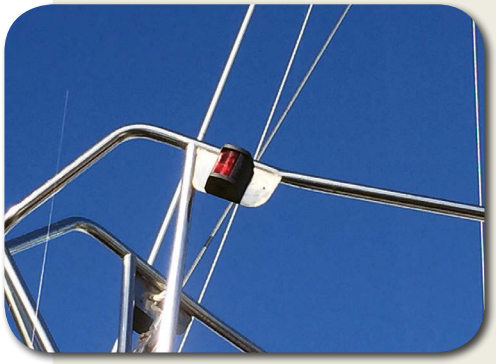
Individual lights are often seen mounted port and starboard on the bow pulpit, above. This sidelight has nicely configured guards around it but they might cause glare. The bent upper rail illustrates the threat pulpit-mounted lights face around pilings.



Hull-mounted sidelights, above and at right, are not likely to be obscured by sails or damaged by sheets or docklines. They are, however, exposed to drenching with large amounts of spray, so waterproofing is critical. Changing a bulb while under way is likely to be difficult.

The rounded shape of this light, above, and its backing plate could prevent sheets from fouling on it.

Mounted well aft on the side of the cabin trunk, this light, at left, is well protected but is likely to be obscured by a low-cut jib. Its light will reflect off everything forward of it.



Because the mounting plate is aligned with the upper rail, this light, above, is directed well above the horizon.

This light, at right, will be obscured by low-cut headsails. Mounted directly on the slope of the cabin side, it is pointing toward the sky.

Small lights mounted on the deck or toerail, at left, tend not to be very visible, and they can get in the way of crew handling lines when docking or anchoring.

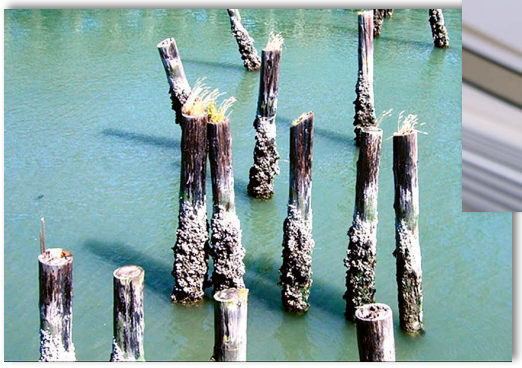
The pulpit will provide some protection for the light tucked close to its base, above.

Inboard of the caprail, this light, above, should be protected somewhat from contact with pilings, and the stanchion might fend off sheets. However, because the stanchion is not quite vertical, the light is directed somewhat downward.

Marina swimmers

A shocking danger is ever imminent

BY JERRY THOMPSON



These pilings are visible, at left, but others may remain as unseen submerged stumps. Faulty electrical connections on docks, above, can lead to electric shock drowning.

Marinas are usually situated in places that offer good protection from storms. During the summer months, those locations can shield marinas from cooling breezes, leaving the air still and sultry. Meanwhile, the boats in the marinas are surrounded by cool water, and the idea of taking a refreshing dip can be very tempting — to anyone who is not aware of how dangerous that dip can be. Three hazards in particular should make everyone think twice about swimming in a marina.

Underwater objects

Old pilings are not always removed when replaced with new pilings and might be left to slowly rot away, and their remains may eventually be hidden beneath the water. The older a marina, the more likely it is that long-forgotten pilings are present. Jumping into the water on top of a hidden piling can lead to serious injury or death. Razor-sharp barnacles that grow on submerged objects can lacerate swimmers brushing up against them.

Other underwater hazards include rope, fishing line, and objects blown off docks by high winds, such as chairs, tables, and sun umbrellas. These, too, can injure or entangle swimmers.

Vessel traffic

Marinas are built for boats. Boat operators maneuvering in tight spaces have difficulty enough without having to be on the lookout for swimmers. Few states require any training or license to operate a boat, and many operators don't have the skill or reflexes to react safely in an unexpected situation. I have seen the driver of a motorboat speed forward when his intention was to reverse. I'll never forget the resulting crunching sound. It's fortunate that nobody was in the water at the time.

Electric shock drowning

Perhaps the most frightening — and least visible — hazard is electric shock drowning (ESD). Few people are even aware of it.

I learned of ESD in the spring of 2016 on reading a news story about two girls who jumped into an Alabama lake from a dock. One of the girls didn't resurface. When her father and brother jumped in to help, the father felt an electric shock. He called to his wife to cut the power, but it was too late for his daughter.

beware!

As I read the story, I started thinking about my marina and other freshwater marinas I visit. I sometimes see adults and children swimming, especially around the houseboat communities. Surveying power supplies on the docks at some marinas, I saw receptacles, conduit, and breaker boxes that showed signs of age and poor maintenance. Some electrical outlets were not even equipped with ground-fault protection. Could electricity find a path to these marina waters? Absolutely.

According to Capt. David Rifkin of the Electric Shock Drowning Prevention Association (ESDPA), 60 deaths were attributed to ESD between September 30, 2000, and July 3, 2016. He and other experts believe the actual number of deaths due to ESD during that period is much higher, because many are mistakenly reported simply as drownings.

ESD appears to be a threat only in bodies of fresh or brackish water where there is the possibility of a source of AC power making contact with the water. This includes not only freshwater lakes and rivers but also areas like the upper Chesapeake Bay, where salinity varies by season and with rainfall. In these places, it's safest to regard the water as fresh. Private docks with electrical connections can present as great a hazard as marinas.

The reason ESD is a danger in fresh or brackish water is because the saline concentration in our bodies makes us better conductors of electricity than fresh water. For electrical current seeking a path to ground, a human body provides a better path than fresh water. Salt water, on the other hand, is a much better conductor of electricity than the human body, to the extent that any stray current will flow around a human body in salt water. No saltwater drownings have been attributed to ESD.

Electrical current in marina waters can be measured, and alarms are available that trigger when current is detected in the water near a dock. However, that current can appear in an instant, as a result of someone working on a boat's electrical system, a visiting boat with a ground fault plugging into the marina's electrical system, or someone dropping a live power cord into the water. When an alarm sounds, it is likely too late for anybody in the water. The only way to avoid ESD is to never swim in or near a freshwater marina, or in a freshwater body anywhere near an electrical source, such as a private dock.

Some marina managers, aware of the risk, schedule "maintenance windows" when they shut off electricity to their docks so that divers contracted to clean boat bottoms or perform other underwater work have an opportunity to do so without risk of ESD.

Do not be tempted to swim at your marina. The dangers might be greater than you realize. Stay safe.

Resources

To learn more about electric shock drowning, visit the ESDPA website: www.electricshockdrowning.org.

Jerry Thompson is an information systems professional who works and lives in eastern North Carolina. He learned to sail more than 25 years ago at the Armed Forces Recreation Center, Lake Chiemsee, Germany. North Carolina's milder winters keep Jerry on the water year round.

On the rode again

Learning from adventures in anchoring

BY ROBIN URQUHART

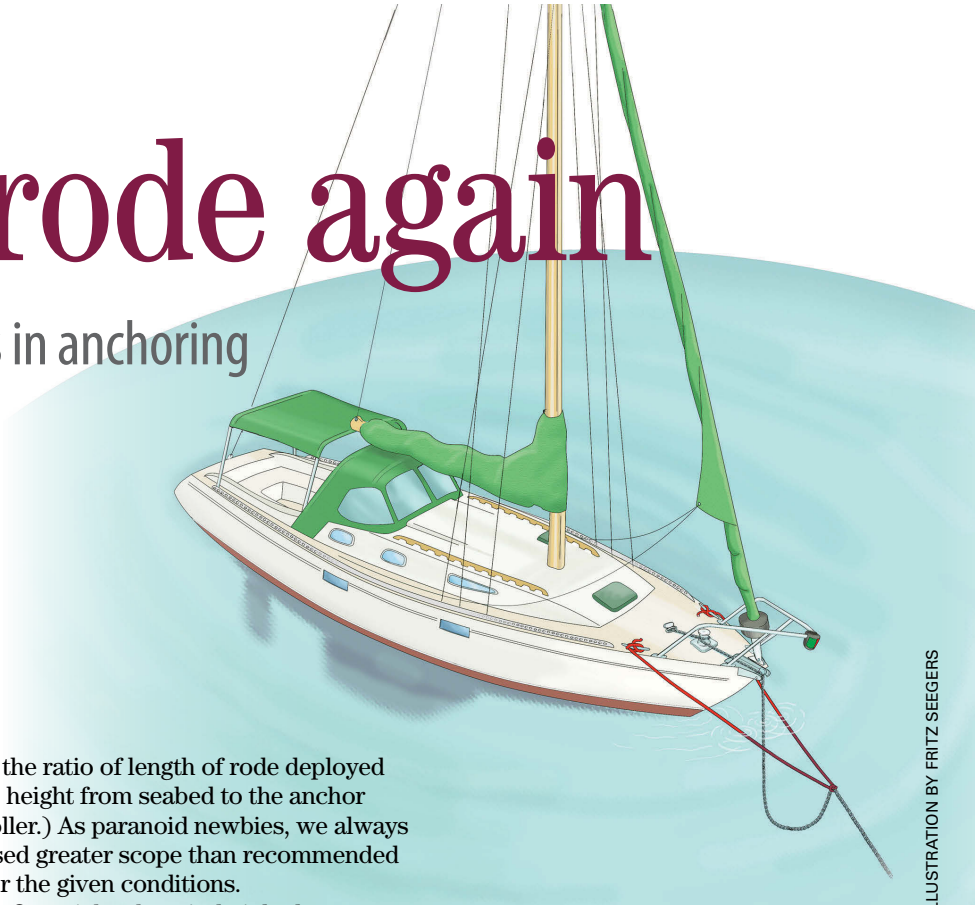


ILLUSTRATION BY FRITZ SEEGERS

For the first two months of cruising on *MonArk*, our 1979 Dufour 35, I barely slept at anchor. I was too nervous about the possibility of the anchor dragging or the rode chafing through. Any knock or noise and I was out of bed like a shot. I would wake the next morning bleary-eyed but thankful we had made it through another night without catastrophe.

In the years since, we have developed a system for anchoring that works well for us. Surprisingly, to us anyway, we use only a handful of techniques 99 percent of the time. Aware that all sailors have their own anchoring methods — and mindful that telling others how to anchor is like telling them how to raise their children — I thought I would share some of the techniques we employ successfully and how we came to use them.

Scope and tide

We began our adventures in anchoring with a 30-pound CQR and 15 feet of chain attached to rope rode. Anchoring in the protected waters of the Pacific Northwest, our biggest concern was the large tidal range, sometimes in excess of 15 feet. This kind of change required that we check the tide tables so we could plan for adequate scope at high tide. We had read in the 67th edition of *Chapman Piloting Seamanship & Small Boat Handling* that appropriate scope is 7:1 in moderate conditions and 10:1 in heavier weather. (Scope is the ratio of length of rode deployed to height from seabed to the anchor roller.) As paranoid newbies, we always used greater scope than recommended for the given conditions.

One night, the wind picked up to 35 knots in the small bay where we and another boat were anchored. We had used 11:1 scope, just in case. When I got up for one of my many anchor checks over the course of the night, the boat beside us had disappeared. I whirled around and saw they had tied up to the small gas dock. Surprised, but relieved, I went back to bed.

Talking with the crew the next day, we learned they had dragged repeatedly overnight. They had calculated their 6:1 scope at low tide and didn't factor in the 10-foot rise in tide. The result was that in the middle of the night, at high tide and in the strongest wind, they had little more than 3:1 scope. It was a good lesson for us (and them) on adequate scope and factoring in the tidal range.

Now, no matter where we anchor, we carefully check the tides and adhere to a schedule we've agreed on for scope: 3:1 for lunch stops, 5:1 for overnight in mild conditions, 7:1 for moderate conditions, and 10:1 when the wind is (or is forecast to be) over 25 knots.

Rigging a bridle

As I began to feel more comfortable about trusting the set of our anchor, I still worried about chafe on the anchor rode. Our rode is forced to lead at an angle from the bow roller to a cleat, causing it to chafe on an edge of the bow roller. I put a section of old bicycle tire around the rode in that spot as a chafe guard, but I never slept well, worried that the chafe protection might move or wear through. More experienced sailors recommended I use a bridle to act as a sacrificial layer of sorts and to help reduce our boat's tendency to yaw.

I made a bridle from a single length of ⅝-inch nylon rope. I tied it to the center of the rode with a Prusik knot

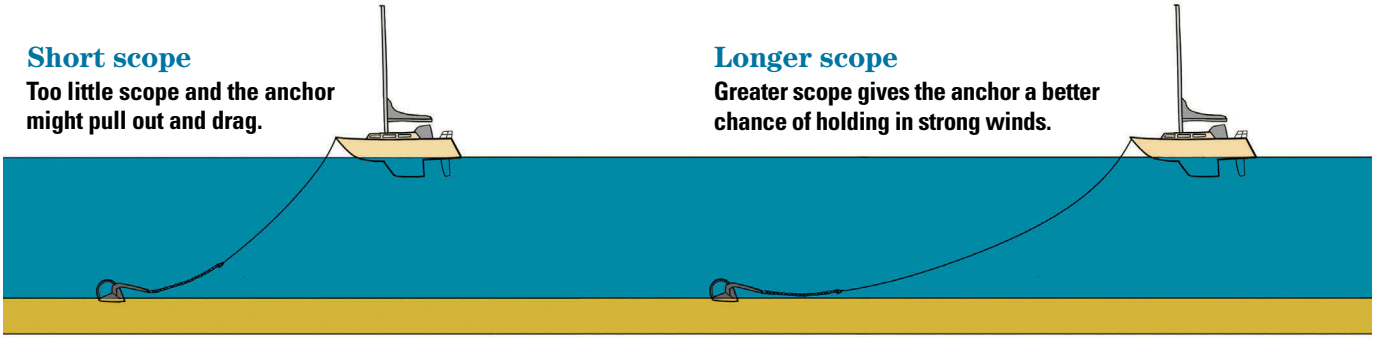
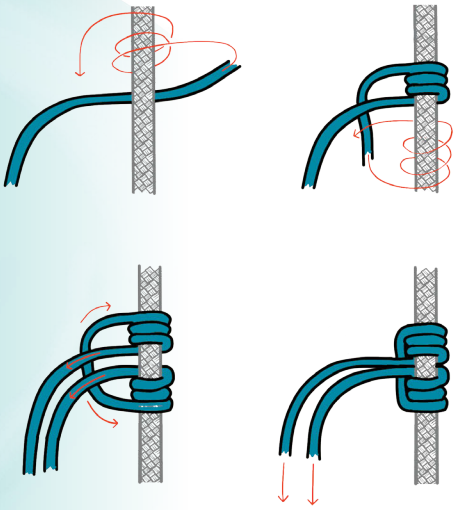


ILLUSTRATION BY ROBIN URQUHART

Tying a Prusik knot



(see the illustration above) and ran the tails of the bridle back to the bow cleats. When we later added a lot more chain to the rode, we fashioned a bridle that we could hook onto the chain for occasions when we didn't have to pay it all out. From that day on, except for a quick lunch stop, we have always used a bridle to reduce wear on the rode, keep the boat pointed into the wind, or act as a chain snubber (see the illustration at the top of the facing page).

Windlass or winded lass?

We pride ourselves on keeping our boat simple and ourselves fit. We never wanted a windlass and were happy to raise our anchor by hand. This worked well when we used a 35-pound anchor and only 15 feet of chain. In strong winds, we would wrap the rope rode around a winch on the mast and simply crank it in.

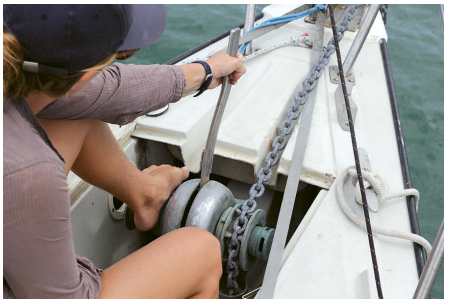
When we upsized to a 45-pound anchor and 150 feet of chain, things got a little harder. One morning, anchored 50 miles north of San Francisco in a 20-knot wind, even with my partner, Fiona, motoring *MonArk* slowly forward, I still needed all my strength to bring in the anchor. It occurred to us that, if we lost the engine or if I were injured, Fiona would be hard-pressed to do it alone. That realization scared us enough to purchase a used manual windlass in San Francisco. I still bring in the anchor by hand when conditions allow, but we've used the windlass more times than I can count.

Anchoring in swell

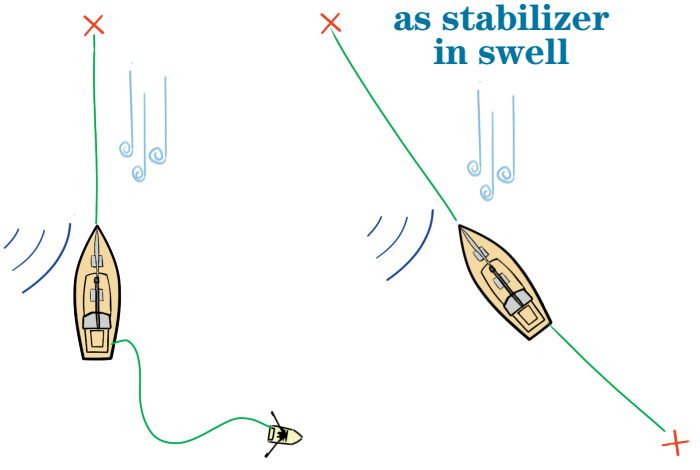
Having sailed mainly in protected waters, we were not used to anchoring in swell — and especially unaccustomed to swell and wind or current coming from different directions. After one extraordinarily rolly and uncomfortable night, we realized we would have to do something differently.

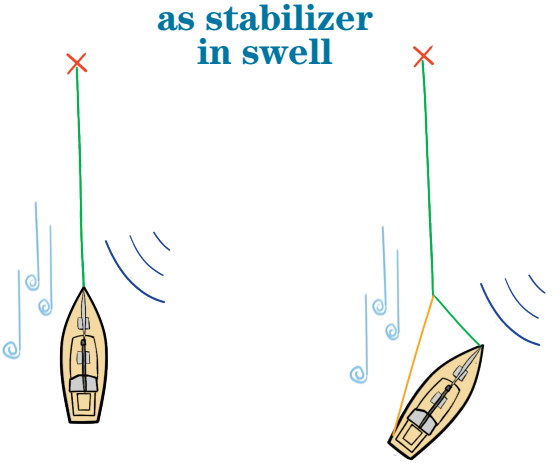
The next day, the swell and wind were still at odds, so I rowed out our Danforth stern anchor in the dinghy and dropped it at a point where I imagined its rode, made taut, would swing the bow into the oncoming swell. When we hauled in the stern anchor rode on a cockpit winch, the boat swung into place and we were immediately more comfortable. (See the illustration at left, below.)

If the difference in angle between the swell and the wind or current direction is not more than 25 degrees, we tie a separate line to the anchor rode with a rolling hitch, lead it directly to a cockpit winch, and make it taut. This pulls the stern in the direction of the rode, changing the angle of the boat relative to the wind and the swell (see the illustration at right, below).



Leading the rope rode to a mast winch, at top, worked well — until the rode became all chain. For peace of mind, Robin has since installed a used manual windlass, above.

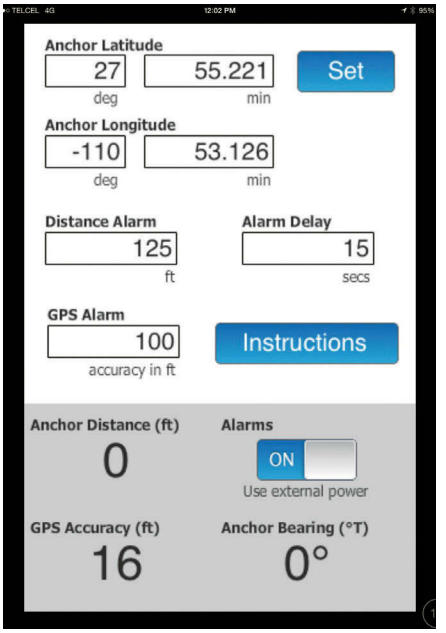




Coping with current

One of our more awkward anchoring adventures resulted from strong incoming and outgoing tides combined with a 25-knot wind. From previous experience in similar conditions, we knew that turning the rudder hard over to one side and locking the wheel would prevent the boat from sailing around on its anchor. It's the same principle as heaving-to: the forward motion of the boat causes it to turn, thereby changing the angle of the forces (wind and current) acting upon it. This worked well for three days and we sat still while other boats moved around rather dramatically.

When it came time to go, we could not bring up our anchor. In fact, we could not bring in the rode. Because we had kept the wheel hard over in one direction, every time the current switched, we would turn in the same direction, clockwise in this case. This caused us to wrap our rode around an underwater obstruction, most likely an old mooring block. After working out how many tide changes there had been since we dropped anchor, we motored in a counterclockwise circle three times, while being careful to keep the rode taut and at an angle away from the bow. Fiona suggested an incantation, as it seemed almost superstitious to turn in a circle three times to release the anchor. But at the end of our third circle, we were free! We still lock the wheel when anchored, but we change the direction of the rudder after every tide change so we don't wrap the rode around an unseen hazard.



One way to get a good night's sleep is to set a GPS-based electronic anchor alarm.

Outboard overboard!

Our worst at-anchor fiasco resulted in damage to a new outboard motor. The wind picked up in our anchorage to more than 30 knots over a fair amount of fetch. After checking the bridle and paying out more rode, I felt reasonably secure. What I didn't check was the dinghy painter. The next morning, our dinghy's absence was immediately apparent. It was later rescued by a Good Samaritan and returned to us, but not before the outboard had been

bashed against rocks and submerged for hours. We are now more careful to ensure that everything attached to the boat stays attached while at anchor as well as while under sail, which means doing a walk-around before we turn in for the night, or when the wind picks up significantly.

Anchor alarms

One Halloween, Fiona and I went in costumes inspired by sailors' nightmares. She was a dragging anchor and I was a broken head.

While just the thought of a dragging anchor is scary, we have a few alarm systems to alert us should our anchor ever drag. As soon as we drop anchor, we mark our position on our chartplotter and turn on the course track. This lets us know whether and how we are moving in relation to our anchor. We also set a depth alarm on the chartplotter to a depth a few feet shallower than our current depth, or a few feet shallower than the expected depth at low tide. Lastly, and most important, we downloaded Drag Queen, an app for the iPad that tracks our GPS position and sounds an alarm if we move outside set parameters. The chartplotter is in the cockpit and we can't hear it very well in a strong blow, but we can take the iPad with us into the V-berth. We just have to remember to shut it off before we take it to shore or we get a rude awakening 30 seconds into the dinghy ride.

At Halloween, a sailor's worst nightmares: a dragging anchor and a blocked head.

Developing a system

It is important for every crew to develop its own procedures for anchoring that best suit the boat, its equipment, and the waters it sails in. Along our anchoring journey, we have learned a great deal from other sailors, and we are grateful for that. We encourage all sailors to take advantage of opportunities to learn from others, and we hope that some can take a lesson or two from our experiences that will help them down the "rode."

Robin Urquhart's master's degree in building engineering has been severely tested since he and his partner, Fiona McGlynn, headed south from Vancouver on MonArk, *their good old 1979 Dufour 35. Follow their projects, problems, and adventures at www.happymonarch.com, and check out their blog at www.youngandsalty.com, where they reach out to younger sailors and the young at heart who share their passion for good old boats.*

Boatstruck

BY JIM PAPA

Love at first sight and its consequences

Long before he belayed himself to the legendary *Spray*, Joshua Slocum found himself taken by the *Northern Light* when she sailed into the harbor at Hong Kong. He sold all he had in the world then and there to become part-owner of her. Sailor and pilot Ernest K. Gann writes in *Song of the Sirens* about how he fell in love with the tired schooner *Albatross* and determined to save her from a ruinous end, despite having nowhere near the money to do so. Such is the seductive allure of tall ships. But small boats beguile sailors too. In *First you Have to Row a Little Boat*, Richard Bode tells of finding himself boatstruck as a boy when he first saw a 23-foot sloop. He could dream of nothing else until she became his.

I was boatstruck when I saw my first Sailmaster 22 sailing up the Patchogue River from the Great South Bay. I didn't know anything then of the Sailmaster's pedigree — it's a Sparkman & Stephens design — but with its wooden spars, low cabin, and sweet sheer, I thought the little blue sloop as pretty as they come.

A few years later, I stumbled across the same Sailmaster in a forgotten corner of one of the river's yards. It was still winter then, though the calendar said March, and a foot of ice filled the boat's cockpit and covered her cabin sole. The companionway hatch had been left open and her dropboards were gone. Her spars, badly weathered and blackened by rot, lay on the ground alongside, beyond repair. The tiller was broken off, along with several feet of the teak toerail. Below, mold and mildew covered the cabin sides and the bulkheads had warped and pulled away from their fastenings. The jack stands pushed hard against her hull.

I was surprised and saddened to find the boat abandoned and so far gone, for she'd looked sound enough when I last saw her sailing. But she was already pushing 40 then, and 40 is very old for a boat — even one built of fiberglass. Balsa-cored decks go soft and keel bolts corrode. Gelcoat cracks and fades. Bulkhead tabbing comes loose. Hatches and windows start to leak. Hardware breaks. She must have been on her last legs when I first saw her on the river, but many a boat limps well enough along until its inevitable end. Built in Holland, she'd finally come to a sad and sorry finish a long way from where she began.

A passion revived

Several years passed before I saw a Sailmaster again. She was heading out Brown's River in Sayville, New York, one June afternoon. I watched from the beach just west of the river as she slipped past the breakwater and into the bay. Her sails set and her varnished spars aglow, she leaned into a reach and danced away in the arms of the wind. Having sold my Grampian a few years before, I'd been looking for a pocket cruiser. Seeing this one left no doubt in my mind that a Sailmaster 22 was high on my list. Whether any were left to be had was, of course, another story.

Though quite a few finely restored Sailmasters still sail in Holland, members of a thriving Dutch Sailmaster club, the boat has become something of a rare find in the States, so I counted myself lucky to discover one for sale a year later in Southard's Boat Yard on Babylon's Sampawam Creek. She'd been on the hard for almost 15 years, covered but left more or less on her own, and that is always bad for a boat. Tarps, after all, keep out only so much weather. A decade and more of summer heat can dry out bedding compound. Inevitably, leaks begin around deck fittings, helped along by winter ice. Balsa and plywood cores rot. Mold grows in the cabin.

Looking over the Sailmaster at Southard's, it was clear she needed serious work. For starters, the coring in the cockpit and the quarterdecks was shot, the rudder delaminated, and the mast step eaten away by rust. The wiring was suspect, the bronze through-hull fittings frozen. But a beautiful boat is a beautiful boat, and I wanted to see the small sloop sailing again. I made an offer and the yard accepted it.

Consummation delayed

Southard's was busy at the time. As I'm no longer fond of working with fiberglass, I moved the boat east 20 miles to Weeks Yacht Yard on the Patchogue River to have the decks and rudder repaired. It was by then late May and I hoped to

launch her by the Fourth of July. The weather, however, had other ideas. Through June and July, the proverbial 40 days of rain fell. On those days when it didn't rain, searing heat and soaring humidity prevented Weeks from getting much glasswork done. In the meantime, I worked on other things, such as replacing the old through-hull fittings, getting the tabernacle repaired, re-gluing the winch blocks, varnishing the cockpit coaming I had removed, replacing the wire halyards with rope, and tearing out the ancient marine toilet. Before I knew it, August had come around and Labor Day loomed large on the horizon.

With her decks cut open and covered in fiberglass dust and boatyard grime, the Sailmaster looked rather forlorn that summer. I'll admit there were times I had second thoughts about taking on a vessel needing so much work. But then a passing sailor would stop to admire her lines, declaring her a pretty boat and relieving me of any doubts. One even spoke of having tried to buy her from Southard's some years before, only to be told she wasn't for sale. As he remembered it, the yard's manager told him that David Southard, too far along in years by then to ever get the Sailmaster or himself sailing again, "likes looking at her. She isn't for sale." And so she sat, spruce spars growing dusty in the mast shed, until David Southard passed away in 2007.

PHOTO BY LAURA CAPUTO

A partner in grime

Two years later, I had the luck to happen upon her. By then I'd met and become friends with Bob, the gentleman who owned the Sailmaster I'd seen sailing out of Brown's River a few years before. He came by the yard one day to take a look. It was raining and so we went below to talk boats. *Noddy* was a wreck of sorts at that point. Lots of dirty, knuckle-bruising work remained. Restoring a 50-year-old sailboat is not for most sensible folks, who — taking stock of the time and money involved — walk away in search of a vessel more or less good to go. Or almost so. But Bob saw past the missing decks, the cabin mold, and the compression post shedding flakes of paint. Bob saw the same thing I did: a lovely boat destined to sail again.

He'd been through it himself. When he came across his Sailmaster, she'd needed some work. OK, lots of work . . . and he'd hesitated. Then the yard offered a couple hundred bucks off if he bought her that afternoon just as she was. Boatstruck, Bob gambled. There were soft spots in the deck and cockpit. The bow rail was loose, the centerboard rusting away. There were probably a dozen other problems he'd discover later on. Bad chainplates, maybe, or rot inside the mast. But looking at her up on shores, none of that mattered to Bob. He crossed his fingers and counted out the cash.

He sailed her as she was that summer and got around to fixing things later. Slowly but surely, one season at a time, he brought the sloop back. The year before he died, Bob finally got around to repainting the hull navy blue and putting the boat's name in gold letters on the stern. The interior still needed a major redo, but under sail the boat looked sharp.

Shaped by nature

Before the coming of fiberglass, the limitations of wood went a long way toward determining a hull's shape. Just as a branch in the wind will bend only so far before it breaks, so too a plank or a rib, even when it's been steamed. Unable to impose their brute will upon nature, traditional plank-on-frame boatbuilders surrendered to nature's sensibilities. The result was a kind of inevitable and intrinsic beauty, a harmonious marriage between the material and the ideal, manifest most appealingly in the sinuous, seakindly lines of small sailing craft.

Many early fiberglass designs, legions of which are still sailing today, took something of their lines from these earlier wooden designs, aspects of which were originally drawn from small working vessels that proved capable at sea. Later, freed from constraints imposed by building with wood, designers of fiberglass boats moved away from what was and remains a remarkably appealing and seaworthy aesthetic and toward fairly flat bottoms, asymmetrical ends, and dull sheers. Lovers of more traditional lines look upon these changes as heresy, with good reason.

Cut open lengthwise at the waterline any hull based upon traditional designs and you'll likely discover some variation of the vesica piscis, the almond-like shape that arises when two circles intersect. Present in nature, where the vesica piscis reveals itself most commonly in the body of a fish, the elegantly balanced shape seems almost tailor-made to slip between the waves. This natural fit between boat and sea, coupled with the right ballast and rig, often results in a comfort and grace of movement under sail that sailors refer to as seakindliness. It's this promise of an easeful and confident motion, especially in the face of rough seas, that we sense in the contours of every truly beautiful boat, from blue-water schooners to little back-bay sloops. The Sailmaster's lines are no exception.

In *Western Wind, Eastern Shore*, photographer and writer Robert de Gast told the story of his 1974 voyage around the Delmarva Peninsula in *Slick Ca'm*, the Sailmaster 22 he owned then. Returning to the sloop from an errand ashore one day, he found himself struck once again by just how lovely she looked. But he was not the only one who thought so. The young man in a boatyard on Worton's Creek who repaired de Gast's stove was also charmed by the lines of *Slick Ca'm* and made a point of saying so, as did others.

Noddy, too, gets her share of compliments. Sailors and landlubbers alike find her very easy on the eye and other boats often sail by to ask about her. Sometimes, I wonder whether David Southard was boatstruck. Did he really keep this Sailmaster around all those years just because he liked looking at her? Maybe. I didn't know him, so I can't say. But if he was boatstruck, I wouldn't be surprised. I know I was. Eight years later, I still am.

Jim Papa is a professor of English at York College of The City University of New York, where he teaches creative writing. He sails on Long Island's Great South Bay.

Tranquility, a Columbia 29

BY FABIO BRUNAZZI

At 50, she gets her long-awaited makeover

Our decision to purchase a Columbia 29 for bluewater cruising was based on three primary factors. First was her reputation. The Columbia 29 appears on many popular lists of small, go-anywhere sailboats, including that of small-boat adventurer and cruising consultant James Baldwin (see www.atomvoyages.com). Second, the Columbia 29 is a Sparkman & Stephens design, and a sailing instructor and talented racer once told me that S&S never designed a bad boat. Lastly, and very important for our budget, was *Tranquility*'s bargain price.

Questionable decisions

Having spent part of my career skippering charter sailboats, I have seen how harsh the marine environment is on equipment. I know from experience that an inexpensive turnkey boat is nothing but a mirage. Even a boat just a few years old can give a new owner a lot of headaches.

Tranquility was built in 1965 in Portsmouth, Virginia. I should have known what a tremendous effort would be required to bring such an old boat back to life. She had spent most of her years in New England before she was sailed to the Caribbean, via Bermuda, and to Nova Scotia. In recent years, she had deteriorated as she passed from owner to owner. What was left of her when we came along was in need of a serious rehab. We knew that, if we wanted to achieve our goal of living aboard and sailing offshore, we had to expend a lot of sweat and finances to make that old boat good again.

My wife, Kate, and I first saw *Tranquility* sitting under a plastic tent in a private yard. She immediately sparked fantasies of how we would transform her into a long-distance cruising sailboat we could call home. The bare-naked condition of the boat made her easy to survey, and I was pleased to see that her hull and deck were sound and her mast and boom were in good condition. I felt confident about my assessment and Kate trusted me. While on a trip to visit my family in Italy, we decided to make an offer.

Getting ready to work

On a snowy New England winter's day, we closed the deal and became the newest owners of a primed hull and deck, a pile of standing and running rigging, and an electric inboard motor with a dubious battery bank. The seller had removed many of the boat's fittings and fixtures when he attempted a refit, and these were included in the deal. Unfortunately, we soon realized that some of these fittings were outdated or needed to be replaced.

Belowdecks, the galley extended along the starboard side opposite an ample dinette on the port side. There was visible rot on the cabin sole amidships, probably a result of years

After her refit, *Tranquility*, sparkling in her fresh livery, tugs at her docklines, main picture, but there were moments when Fabio and Kate, seen here as new owners, wondered about what they had taken on.

of water leaking in where the mast wires pass through the cabintop. The electrical and plumbing systems needed a complete overhaul. To be fair, the owner had advised us not to buy the boat in the first place and, when he saw we were going to buy her anyway, he offered some good advice: pick your battles.

Kate and I left *Tranquility* as she was over the winter, while I delivered a boat to the Caribbean and stayed there to work and Kate returned to New York City to begin the process of transitioning from our lives on land to our future lives afloat. When spring came, we moved *Tranquility* to a boatyard and set to work on her at a feverish pace. We had planned to spend six months on our refit project, but we soon realized that, if we wanted to leave New England before the next winter was upon us, we would have to cut some corners and make compromises. We had to pick our battles.

First refit

The goal of our first refit, which we began in May 2013, was to do the basics and get *Tranquility* floating and in sailable and liveable condition with the funds we then had.

The first project we undertook was to replace the wheel steering with a tiller. Fortunately, the rudder stock extends through the cockpit sole so a short tiller can be attached to it for emergency steering. All I had to do was remove all the components of the wheel-steering system and attach a full-length tiller to the stock. On discovering that the rudderstock seal was broken, I glassed in a tube between the cockpit sole and the hull.

With the tiller, we gained legroom in the cockpit as well as space underneath the cockpit sole. Tiller steering would also make it easier to install windvane self steering at a later date.

Tranquility was nearly bare at this point, without even portlights. It was the perfect time to paint the deck and the hull. We used a one-part enamel as we could do the job faster than with two-part.

After painting, we re-installed all the deck hardware and the portlights, then turned our attention to the interior. Because time was short, we left it much as it was, though Kate did her best to infuse some cuteness into the 50-year-old décor. We put together basic plumbing and electrical systems, knowing that we'd likely be making changes after we'd had a chance to sail our boat and live aboard her for a while.

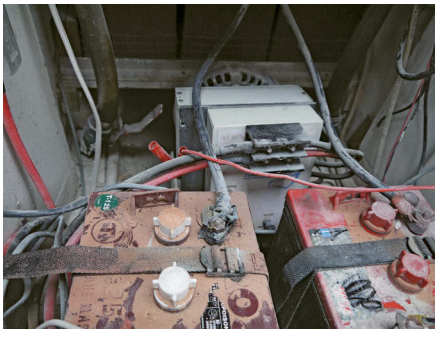
Without giving much thought to what we were buying, we began to purchase all sorts of used and new items on the internet and from chandleries, consignment stores, and friends. While we had a feeling that we were randomly slapping things on the boat, before setting sail, we made sure the rigging, sails, and auxiliary propulsion received enough of our attention and funds.

An important purchase was a stove. *Tranquility* came with a two-burner cooktop but no oven. When I found a great deal on a secondhand Force 10 stove with an oven, I bought it without consulting Kate. She wasn't happy about sacrificing storage area to the oven, but I was convinced that a high-quality stainless-steel range with an oven would be very much appreciated once we lived aboard. Neither of us has regretted the decision to install it.

Electric propulsion

A major gamble with our purchase of *Tranquility* was her electric propulsion system. It's built around a brushed 5kW 48-volt DC motor and drive assembly sold by Electric Yacht. The conversion was made in 2007, and we found some interesting videos from that era. I had no knowledge or experience with such a setup and wasn't sure we should keep it. After spending some time researching, we decided to go ahead and give it a try, knowing that, if we weren't happy with it, we could always attach an outboard motor to the transom.

My first concern was the battery bank. The eight 6-volt golf cart batteries on the boat when we bought her were spent, and one froze during the winter. We searched the market for the best



From the top: *Tranquility* spent the winter ashore while Fabio and Kate earned money. The stove recess as they found it. Fabio enlarged the space and fitted a Force 10 stove with an oven. The batteries for the electric propulsion were past their useful life and needed to be replaced.

solution we could afford. We spent nights after work reading what we could find online, and even called some of the major battery manufacturers and distributors. We made cardboard mock-ups of the various batteries and their footprints in an attempt to determine which would provide the power we needed and fit within the available space. The best solution seemed to be a 48-volt LiFePO4 (lithium iron phosphate) battery bank, but unfortunately its price was well outside our budget.

For practical reasons, we ended up buying 6-volt lead-acid golf cart batteries. One benefit of this choice is that, should one of the batteries fail sometime in the future, finding a replacement of a similar size should be possible almost anywhere in the world.

So, after building new battery compartments, one in the engine room and one under the settee in the main saloon, we purchased, transported, lifted, and installed more than 500 pounds of Trojan T-125 6-volt batteries. Connected in series to obtain the 48 volts required by the motor, they give us a total capacity of 240 ampere hours. Although not ideal, the new setup better balanced the distribution of weight on board and allowed better access to the propeller shaft, which had been completely inaccessible before. With this bank, we expected to get a range of 15 miles at 4 knots in flat seas.

Cutter rig

The Columbia 29 was originally rigged as a sloop, but *Tranquility*'s rig was later modified by designer Eric Sponberg for a previous owner who wanted a cutter rig. According to the drawings that Eric kindly mailed us, the rig was beefed up with larger-diameter (¼ inch) shrouds and external chainplates through-bolted to the hull and backed with thick stainless-steel plates. Two aft lower shrouds were added, as well as an inner forestay for the staysail.

The headsail was on an old Hood roller-furling system in good working order. *Tranquility*'s mast had at some point been replaced with one from a different boat. We decided that this rig configuration was sturdy, had plenty of redundancy, and was ideal for us. It also had steps for climbing aloft, and I have always thought that the practicality of mast steps outweighs the disadvantages (rig noise, windage, and possible interference with running rigging). We hired a professional rigger to measure and order new cables and fittings that we later installed ourselves.

Sails

Given the limited range of our motor, sailing performance became important to us. On the recommendation of a friend, we ordered a 100 percent furling Yankee, a staysail, and a full-battened mainsail from Lee Sails in Hong Kong. It was awkward taking measurements with the stick down but, armed with advice from the sailmaker, we ended up with three brand-new sails that were delivered promptly — and fit perfectly. We were so pleased that we later purchased a cruising gennaker and a storm staysail from Lee Sails.

Southbound

Our 6-month refit had stretched to mid-November so, having done the most important work, we quickly put the boat together and sailed away from the south coast of Massachusetts, which was becoming inhospitable to sailors. With an experienced third crew member, my friend Roberto, we sailed to Block Island to wait for a good weather window. We were lucky, and were soon able to set sail directly to Norfolk, Virginia. Roberto left us there and Kate and I continued south, alternating offshore passages with runs in the Intracoastal Waterway while playing cat and mouse with the frequent cold fronts that were making deep incursions south that winter. Due to our limited range under power, we sailed offshore for most of the distance. We eventually found safe harbor in Brunswick, Georgia, where we parked for a while and took temporary jobs to earn the money to continue customizing our little boat.

Second refit

The next stage of our refit began in January 2014. By this time, having lived and cruised on *Tranquility* for more than six months, we had a clearer view of all the problems we had not yet addressed. In particular, we knew where the leaks were!

The south coast of Georgia offers year-round fair-weather conditions for boat work. What's more, James Baldwin, who lives there, gave us invaluable input on our ideas for this stage in our refit. Before we knew it, we were landlocked in our new location, but we were motivated to keep working hard on our little vessel, and the company of fellow boaters and new friends made the task less arduous.

It took us more than two years working part time on the boat (full time for the last four months) to reach the point where we were satisfied. By that time, we had replaced, patched, or restored almost everything on board.

Interior

Having a place to live ashore made it easier for us to tackle the more dusty and destructive jobs on board. We began by working inside the boat to fix the most serious issue.

During our passage south, Kate had noticed the cabin sole flexing beneath the compression post under the mast. After tearing apart the rotten plywood cabin sole, we saw that the rot extended to the hardwood beam that supported the compression post. Digging a little deeper, I discovered a gap between the hardwood beam and

Fabio rebuilt the nav station to accommodate 50 years of changes in technology, at right. He rewired the entire boat and fitted a new AC/DC panel, below. The red button controls the propulsion motor.

the bottom of the bilge. To prevent any further movement, I epoxied a solid teak wedge into the void and fiberglassed it to the hull.

While the sole was out, I took the opportunity to address some fiberglass peeling I'd noticed in the bilge and to reinforce the tabbing around the main bulkhead. I also gave the bilge a coat of fresh paint, using two-part primer and two coats of Interlux Bilgekote. I replaced the rotten section of the sole with plywood and epoxy.

On the port side near the companionway, the chart table area, engine room, and battery storage begged for a more rational design that would use the space more efficiently and allow better weight distribution. I modified the companionway ladder and built new boxes to contain all eight batteries for the electric auxiliary. I made a new, larger chart table with panels around it to accommodate instruments and hide the electrical wiring.

Up forward, we removed the Jabsco marine toilet, the holding tank, and all the hoses. As we don't use the V-berth as a sleeping area, I installed a composting toilet in the V-berth cutout. We turned the space freed up by this conversion into storage. Later, when the boat was hauled out, we permanently glassed over the two through-hulls we no longer needed. So far, we are very happy with our switch to a composting head.

Deck

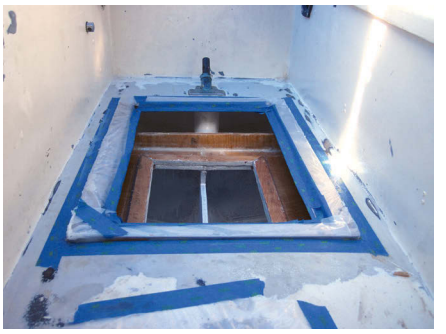
On deck, I began rebuilding the forehatch, the companionway hatch and its sea hood, and the lazarette hatch. These hatches were teak and had all held up during our maiden trip south, but it was clear that none of them had much life left. I rebuilt the forehatch and the lazarette hatch first, using new teak. Later, I tackled the companionway sliding hatch and sea hood, salvaging the teak I could and replacing what I couldn't. Luckily, most of the teak, although weathered, had retained its strength.

The old toerail needed attention too. The fiberglass bulwark that forms the hull-to-deck joint was covered with a horseshoe cap made up of three strips of teak, which had splintered with age and stress. After purchasing teak at a low price (it was still very expensive!) I decided it was not of good enough quality to leave bare and unprotected. Instead, I took a different approach. I glued a sandwich of teak strips to the fiberglass bulwarks with thickened epoxy, using more than 100 fasteners to hold the teak in place while the epoxy cured, then covered the entire surface with two layers of fiberglass. We later faired the surface and painted it with a two-part marine paint.

The bulwarks are a nice feature on the Columbia 29, as they make a

Removing the head revealed rot in the sole forward of the mast, at top. Fabio and Kate installed a composting head in the V-berth cutout. Fabio rebuilt the sea hood, at left, clad the bulwarks with teak, at right, and built a platform on the bow for the anchor roller and bowsprit.





The cockpit was Fabio's focal point for a while. He made new drain channels around the seat locker lids, at left, and sealed off the cockpit lockers from the boat's interior, center. In the vacant space under the cockpit sole, he built an integral water tank, at right.

secure foothold when the boat heels. However, rebuilding the hull-to-deck joint presented problems at the bow, where the anchor roller and bowsprit are mounted, and the stern, at the corners of the transom. To rebuild those areas I cut 1½ inches off the top of the bulwark and glassed in pieces of solid teak to create a flush surface. At the bow, this made it easier for me to install the anchor roller and the new retractable bowsprit for light-air sails. On the stern, I now had beefier places to attach the mooring cleats.

Cockpit

In the space beneath the cockpit, I built an integral freshwater tank using plywood, fiberglass, and epoxy, and installed a sealed aluminum hatch in the cockpit sole for access. Its 32-gallon capacity brought our total freshwater supply to 57 gallons. At the same time, I improved the channels around the seat hatches so they would drain with the boat heeled, and I made the cockpit locker and lazarette watertight and isolated them from the rest of the boat.

Painting

When at last the time came to paint the deck, we chose a two-part marine paint (Perfection by Interlux, in Oyster White) due to its superior adhesion and strength compared to one-part paints. These qualities are especially important given the heavy traffic and stresses a deck is subjected to. We painted the bulwark cap bright red with leftover paint given to us by a friend.

After completing the paint job, we reinstalled all the deck hardware, added new blocks for the staysail sheets, and fitted the new retractable bowsprit I designed for a cruising gennaker. We also installed a new 60-watt solar panel on an articulated mount that allows us to turn it to face the sun.

Boatyard time

We completed the final chapter in our epic refit in a boatyard in St. Marys, Georgia, not far from Brunswick. In this liveaboard-friendly yard, with access to tools, we were able to take care of everything we could not do in the water, plus all the unexpected collateral projects that arise every time you do anything on a boat.

In particular, we fixed a few stress cracks in the rudder area, better sealed the deadwood around the stern tube, replaced the tiller head with a new one with a keyway, installed a Norvane self-steering wind vane, permanently glassed the abandoned through-hulls for the marine head, replaced the propeller, and, of course, much more. After two maintenance coats of one-part paint on the topsides and a new bottom job, we launched a gleaming, fully-refit *Tranquility*.

Despite all the work we've done on our boat, there remain a few projects we set aside for "someday." But right now is the time to sail, not to do boat work. We trust that, with all our efforts, we were able to set the clock back on our Columbia 29, at least enough to enjoy cruising for a while. We feel incredibly fortunate to have realized our dream of transforming *Tranquility* into our own small bluewater cruiser that will keep us safe and happy at sea.

Fabio Brunazzi was an organizational psychologist in northern Italy before a chance encounter in Archipelago de Los Roques, Venezuela, introduced him to sailing. From that point on, he made sailing his focus, a profession as well as a lifestyle. He enjoys working as crew on large yachts and living and sailing on his small one with his wife, Kate. He's the author of two blogs: www.lapossibilitadiunisola.com and www.psychologyofsailing.com.

Stripped of all its hardware, the deck looked barren as Fabio and Kate made their repairs and prepped it for painting, at left. Their work paid off when they were finally able to set sail and turn *Tranquility*'s bow seaward, at right.

A brief history of Columbia Yachts

by Dan Spurr

PHOTOS COURTESY OF HEART OF GLASS

While the first fiberglass auxiliary sailboats were introduced in the mid-1950s, and the 28-foot 6-inch Pearson Triton (1959) was widely considered the most successful series-produced model, it was Columbia Yachts of Costa Mesa, California, that developed assembly-line production processes and made yachting affordable for the middle class.

Richard Valdes, a 1956 graduate of the University of California, and U.S. Navy submariner Maurice Thrienen, who in 1957 started a business selling fiberglass supplies, together founded a company called Glas Laminates, later Glass Marine Industries, to build boats, sail and power. That was 1960, and the business prospered, in part because Chicagoan Vince Lazzara bought the controlling interest in the company (after selling his casting foundry and cutting his teeth in fiberglass boatbuilding at AeroMarine in Sausalito). He helped finance tooling for new models and the development of a network of around 100 dealers.

After their first model, the Islander 24, sold well at boat shows in Chicago and Los Angeles, the partners were ready to produce a larger boat. The company was by then renamed Columbia Yacht Corporation (after the America's Cup 12-Meter), and early company literature says, "In 1962 the complete tooling was acquired for the Columbia 29, a highly successful model designed by Sparkman & Stephens." This implies that the design was previously in production. It bears some resemblance to the S&S-designed Tartan 27 introduced two years earlier by the Ohio boatbuilder Douglass & McLeod Plastic Corporation.

Lazzara purchased the molds of Charley Morgan's 40-foot Sabre, a centerboarder that had nearly won the 1964 SORC (Southern Ocean Racing Conference), and successfully marketed it as the Columbia 40. Other models soon followed: ranging from the Challenger 24 and Columbia 22 all the way up to the Columbia 57. Most models at that time were designed by Bill Tripp and featured a flush deck with a bubble coachroof over the saloon that gave the later 1960s and early '70s designs a very distinctive look.

The Columbia 26 was one of Columbia Yachts' most popular models. Designed by Bill Tripp, it featured the bubble cabintop. It was in production from 1969 to 1970, and 950 were sold.

Introduced in the mid-1960s, the Columbia 22 was available with a fin keel or keel/centerboard, and had berths for four.

In 1967, Columbia Yacht Corp. was bought by Whitaker Corp., making it the first fiberglass boatbuilder to draw the affection of a large conglomerate. (A year later, Morgan Yachts was bought by Beatrice Foods.) Headquarters and production facilities were located in an Irvine industrial park. Like Morgan Yachts, Columbia's new owners initiated a kit program. Buyers could purchase just the basic hull and deck and as many additional components as they wished but, because so many were poorly finished by their amateur owners, Sailcrafter Yacht Kits were discontinued after a few years. In 1964, Pacific Marine in Göteburg, Sweden, was the first company to receive a foreign license to build Columbia's designs. Later, companies in Japan, Australia, Spain, and Canada also received licenses.

Whitaker's acquisition resulted in Lazzara divesting his interest in the company, and he had to sign a no-compete contract. He moved to Florida, where he began building houseboats and, in 1971, the Gulfstar line of cruising sailboats, motorsailers, and a few motor yachts.

In 1984, Whitaker unloaded some of the Columbia molds — the most recent Columbia 7.6, 8.7, 10.7, and a 35-footer designed by Alan Payne — to Aura, in Huron Park, Ontario, Canada. Other molds were sold, but no boats were produced in meaningful numbers. The economic downturn of the mid-1980s that doomed other large production sailboat builders like Pearson Yachts and O'Day Corp. also took down Columbia Yacht Corp. The industry has never been the same since.

Dan Spurr *is* Good Old Boat*'s research editor. His book* Heart of Glass *is the first reference the editorial staff turns to when checking facts on the history of fiberglass boatbuilding.*

Snapshots from refit season

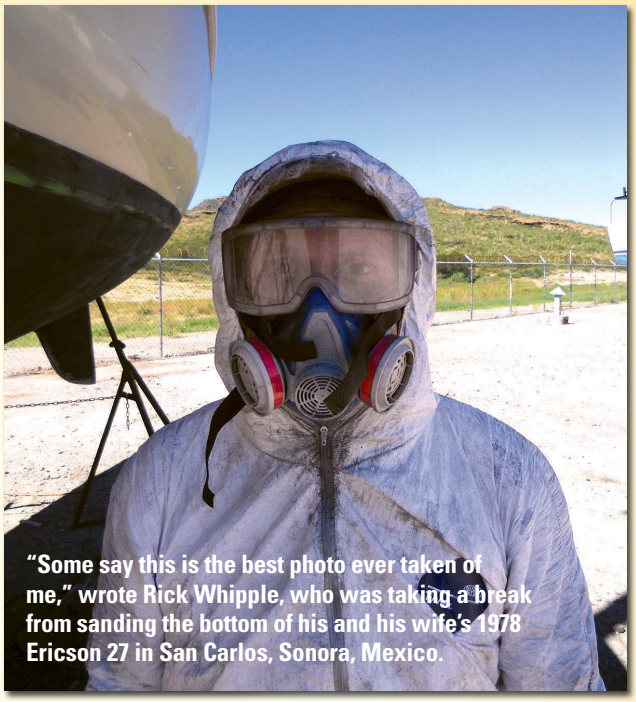
Gary Ingraham, above, wore this outfit for the 900 hours he spent grinding, sanding, and redoing the bottom and interior of his 30-foot Luger Voyager ketch. "I'm 1,800 hours into this," he wrote, "and I've questioned my sanity for 1,200 of those hours, but at least I now know she floats."

Linda Frost takes a breather, above, while feathering chipped bottom paint before a 2016 launch of *Plane Crazy*, the 1999 ComPac 25 she and her husband, Curtis, sail on Petenwell Lake in Wisconsin.

David Gilbert sent us this photo of the women in his life, above, working on *Big Kanu*, which he and his wife, Joan Mary, bought new in 1977. "That's Joan Mary with the hat and our daughter Trish." They sail out of Ashbridge's Bay Yacht Club in Toronto.

"Here I am 'relaxing' in a beach chair while preparing the bottom of my 1972 Marshall Sanderling, *Maggie*, for a barrier coat." Joe Vlcek, at right, of Dunstable, Massachusetts, says he relaxed like this several weekends in a row.

Dennis Reitz practices his synchronized-swimming moves, above, while working on *Niamy*, his 1973 Morgan O/I 36 ketch, with his friend Jack Defortune at the Johnson Boat Yard in Branford, Connecticut.



"Some say this is the best photo ever taken of me," wrote Rick Whipple, who was taking a break from sanding the bottom of his and his wife's 1978 Ericson 27 in San Carlos, Sonora, Mexico.

Self-reliant cruisers Jessica and Matt Johnson completely refit/rebuilt *Elements of Life*, their Trisalu 37, while living aboard. Here, Jessica preps the quarter berth overhead for a new coat of paint.

Diann Holland of Kansas City performs the time-honored ritual of The Laying On of the Tape, below, prior to bottom-painting *Peregrine*, the 1991 Beneteau F235 she and Mike Joseph share.

Vicki Barnes found a dustpan to be the perfect snow shovel, but why is she smiling? Because this was step one in getting the 1972 Douglass & McLeod 22 ready to trailer to the Florida Keys for a couple of months of warm-water sailing.

A brighter overhead

Looking up is no longer embarrassing

BY ROGER HUGHES

One of the inescapable downsides of owning a good old boat is, it's old! Much on board a boat that's pushing 40, like my Down East 45 schooner, *Britannia*, needs renovating or replacing.

Britannia's original overhead liner is an example. Throughout the boat, in the spaces between wooden beams, the liner was a faded dirty beige vinyl. It might have once been white, but it had irritated us from the day we bought the boat six years ago.

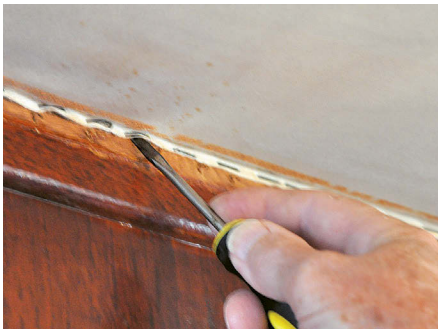
Changing *Britannia*'s rig from a ketch to a schooner didn't help the appearance of the overhead. We through-bolted new eye bolts, winches, rope jammers, and life-raft chocks, then cut a hole for the new mainmast, which is stepped in the center of the saloon. I had to cut the liner for every installation, and all I could come up with for repairing the vinyl was cream-colored masking tape, which didn't match too well. I caught visitors glancing upward, but politely saying nothing.

Time to cut bait

Eventually, replacing the overhead liner came to the top of my to-do list, but even thinking about completing the job gave me hot flushes. The saloon overhead alone is 9 feet wide and 11 feet long, in five full-width sections between wooden deck beams. There are also three cabins, two heads, and two passageways.

I found a suitable replacement material at Lowe's. It's tongue-and-groove PVC planking that's used as

Roger says the new panels have completely transformed the saloon, at top of page. Quite apart from the appearance, it reflects light better and has improved the deck insulation. The vinyl liner had dulled over time from white to a dirty-looking beige color, above left. The masking tape "bandages" covered cuts made to give access to bolts used to fasten new hardware through the deck, above right.



To remove the staples that held up the old overhead, Roger first levered them up with a sharp screwdriver, then twisted them out with long-nosed pliers.

Precise placement of the first two boards between the beams, above left, was critical to ensuring the rest of the boards would be parallel to the centerline. Roger first pre-drilled the tongue of a panel with a 1/16-inch drill to prevent it from cracking, then secret nailed it in place into the batten alongside the beam, above right. The brads he used were small, so he held them with long-nosed pliers.

beadboard wainscot on interior house walls. The planks are 7½ inches wide and ¼ inch thick and come in bundles of three boards either 8 feet or 3 feet long. It was most economical for me to buy the three-packs of 8-foot-long boards, which amounts to 24 linear feet, for $22.97 per pack, roughly one dollar a foot. The planks are reversible, with two "boards" on one side and three on the other. I decided to use the "two-board" side.

Important benefits, on a boat particularly, are the product's lifetime guarantee against rot and mildew and the ease with which it can be washed with soap and water. I also think the greater thickness of this material compared to the old vinyl must provide better thermal insulation from the hot deck.

Taking down the old

I began by removing one panel of the old headliner to see what I was facing. On all four sides, the material was stapled every inch (with steel staples) to wooden battens stapled in turn to the beams. That was about 24 staples per foot of liner, every one of them rusty!

With a box cutter, I cut the vinyl panel close to the staples along each side, whereupon it fell onto my head, along with nearly three decades of dust and more than a few dead cockroaches. (It always amazes me that cockroaches don't ever seem to decompose.) I wore my wife's shower cap when cutting out subsequent panels.

After stripping the material out of a section, I embarked on the tedious job of removing all the staples that had held it to the batten. Luckily, the battens were still in good condition. I used a thin-blade flat-head screwdriver to pry the staples up, one at a time, then levered them out with long-nosed pliers. Each vinyl panel was affixed with more than 500 staples.

Roger extended the trim around the butterfly hatch over the saloon downward to match the new overhead panels. This picture was taken before he varnished the hatch.

Installing the new

My plan for the saloon was to install the tongue-and-groove boards with the seams running fore and aft. The material was stiff enough to be self-supporting over the 2-foot span between the beams, so I decided to secret nail them to the battens with stainless-steel brads.

To cut the PVC boards to length, I installed my miter saw in the cockpit. It sliced through them like butter but, unfortunately, makes only a 6-inch-long cut, so I had to turn the board over to finish the cut — very carefully. A sliding compound saw

would have been a better tool but, on boats, you learn to use the tools you have. I could also have cut the material with a box cutter, but that is a slow process (it takes four passes with a sharp blade) and is hard on the hands.

I cut the first piece off an 8-foot board, slightly longer than the space between the beams. I then held it up between the beams, exactly down the centerline of the boat, which I had marked with a thin string fastened at each end of the saloon. I found the beams to be remarkably close to parallel, but each board still had to be checked, and sometimes trimmed, to ensure a close butt-fit to the beam. I marked the other end of the board using a wooden ruler against the beam, then scribed a line with a pencil.

Then it was up the six steps into the cockpit, another careful cut to the line, then back down to try the fit, then back up to make minute adjustments — sometimes less than a millimeter — to seat the panel snugly between the beams.

The heads are also much improved. When Roger removed the old vinyl liner, he also took down the overhead lights. Reinstalled, they help hold the boards in place.

Before nailing a board in place, I drilled 1/16-inch pilot holes into the corner tongues to prevent them from splitting. I then nailed the board to the battens, driving the brads at an angle. The brads are small, so I held them with long-nosed pliers to start them, then used a nail set to drive them home. I considered gluing the boards in place, but then realized they would be practically impossible to remove if I ever needed to bolt another fitting through the deck.

I cut and measured each subsequent board exactly the same way, fit it into the groove of the adjacent board, covering the brads, then secured it on the other side.

When I came to the outboard edge of a section, where the last board met the saloon side, I had to make precise cardboard templates. Due to the curvature of the coachroof sides, the spaces to be filled were irregular, with tapered or curved edges that also had to be chamfered. I made templates for the pieces in the central passageway section too.

Board by board, I slowly in-filled each section. It was gratifying to see the new clean overhead between the beams. It was all easy enough, and I soon got into the swing of measuring and cutting, but I did make a few wrong cuts, and more than once found myself trying to mount a panel upside down.

The overhead in the aft cabin under the aft deck is low, so Roger had to lie on his back to do it — but on the mattress.

Details . . .

Working full time, it took me a week to complete the saloon, and another two weeks to work my way through the rest of the boat.

The uninterrupted spans in the overhead were longer in the staterooms and heads. To keep the boards from sagging, I supported them mid-span by driving screws up through them into the cabintop. To hide the screw heads, I used white plastic washers with attached snap-on caps, also available at Lowe's.

It was tedious work and for much of it I was reaching overhead. My arms ached for days afterward. I used 10 packages of boards and cut and attached about 200 pieces. I removed more than 4,000 rusty staples and pre-drilled and drove home about 400 brads. But we now have a very professional-looking overhead throughout the boat. The total cost of materials was around $250. I shudder to think how much it would have cost to have professionals install it.

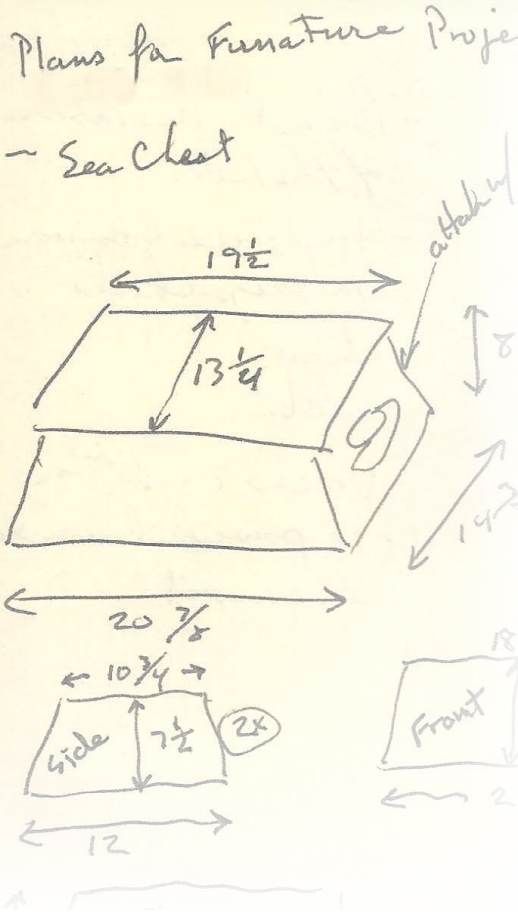
As I hoped, the overhead feels cooler to the touch on blistering-hot Florida days. The effort has greatly improved the appearance of *Britannia*'s interior and probably the value of our good old boat.

Roger Hughes has been sailing for nearly half a century as a professional captain, charterer, restorer, and happy imbiber on a lot of boats. His restoration of Britannia, *a once run-down Down East 45, is nearing completion after five years (he thought it would take two at the most). Roger and his wife, Kati, look forward to cruising later in 2017 and enjoying all the innovations he has incorporated in* Britannia, *many of which have been featured in* Good Old Boat. *Roger's website is www.schooner-britannia.com.*

Mini sea chest

A traditional seaman's artifact is a step up

BY DREW FRYE



Getting into our bunk aboard our PDQ 32 is a rather athletic endeavor: I have to crawl in face-first over a seat that is too high to use as a step and too high to sit on when putting on shoes. With her bad knee, getting into bed was an even bigger struggle for my wife, Laura. It's not a problem peculiar to *Shoal Survivor*. Berths on boats, V-berths in particular, are often at an inconvenient height that's dictated more by the shape of the hull than by human dimensions.

When high beds were in fashion in homes, they came with a stool. We tried a stool, but it was too small, too tippy, and too single-purpose for life on a boat. We needed something stable that could be used as more than a step up.

Throughout the age of sail, every seaman had a chest in which to keep a few personal possessions orderly and secure. A scaled-down chest would fit perfectly in front of our V-berth, could be used as a handy step, and would solve an additional problem. Although our boat has some cavernous lockers under the bunks and saloon seating, handy small lockers are in short supply in the staterooms. Laura and I had never settled on one place to put our shoes, so they were forever underfoot. They could go in a chest.

But I couldn't just run to West Marine and pick a sea chest off the shelf. I had to dig out the ruler, saw, and sandpaper and build my own, just as seamen of yore were expected to do. What better way to spend a winter's evening than surrounded by sawdust?

Constructing a sea chest is straightforward and can be done with simple tools. It's basically a box, but one with a few design features that have been incorporated over the ages.

Sea chest features

Taper – A sea chest is wider at the bottom than the top, which makes it very stable. The taper allows the handles to be attached where they are accessible when the chest is jammed tight against a bulkhead, and they won't scratch that bulkhead if the chest

A sailor's sea chest was where he stowed his belongings and expressed his skills.

slides about. The lid will open in a tight space without binding at the back or on the sides. A trim strip at the bottom provides additional side relief and takes the wear.

Rope handles – Rope is not damaged by smashing into things and not damaging to anything it strikes, whether the chest is sliding about or being carried. Sailors would often demonstrate their marlinspike skills by making handles with ornate fancy work.

Hinges – Strap hinges are traditional, but a piano hinge fits better, is strong, and I had a cut-off.

Lid cleats – The boards that make up the lid are held together with cleats that are fastened to the underside of the lid and carefully beveled to lock the lid in place when closed. Even with the hinge removed, the closed lid should not shift even a fraction of an inch.

Construction

A sea chest can be built any size to fit a need. My chest is roughly 20 inches wide, 13½ inches deep, and 8 inches high. I used nominal 1 x 8 lumber for everything except the bottom, for which I used ¼-inch plywood. The actual width of a 1 x 8 board is 7¼ inches, so that is the height of my chest sides (the thickness is ¾ inch).

To create the bottom-to-top taper characteristic of sea chests, I cut all four side boards as trapezoids. I made no miter cuts or lap joints and found that, when using dimensional lumber in this way, a table saw can be useful but is not required. Because I planned to paint the chest, I made no special effort to hide fasteners but focused on building it strong enough for regular use as a step.

I was mindful of protruding hardware. While a few scratches didn't matter on a whaling ship, they show up on a small boat. For example, the handles were traditionally attached with exposed rivets, but I substituted countersunk brass bolts. In fact, I countersunk all the fasteners. On the inside of the chest, I smoothed all the hardware with a Dremel tool so there would be nothing to snag our shoes.

Assembly

I started by connecting the front and back (the long sides) of the chest to the ends with 1⅝-inch stainless-steel deck screws. I pre-drilled and countersunk the holes to ensure the boards pulled up nicely. Before screwing them together, I squared-up all four sides on a flat floor; I didn't want a rocker.

Next, I attached the floor with countersunk ¾-inch #6 brass screws. Then, because the slope of the sides of my chest is slightly different from that of the front and back, and to make the top flat for the lid, I leveled the top edge with a disk sander. This was not necessary where the sides meet the floor because I later covered that joint with a trim strip. But because the sea chest was to be used as a step, it was important that the top be flat and well fitted.

I made the lid from two 1 x 8 boards held together by 1 x 2 cleats on the underside. I cut the cleats to be the same length as the front-to-back span of the chest interior and beveled their ends about 20 degrees to prevent them from binding when the lid is opened and closed. I clamped the two lid boards tightly before attaching the cleats using countersunk ¾-inch #6 screws and wood glue. When finished, the joint was nearly invisible.

Once the glue dried, I cut the lid to its final size — it extends about ½ inch over each side. I could have used a single wider board for the lid, but it would have been more likely to warp and would still have required the cleats for strength and stability.

Before attaching the hinge, I shaved about 3/16 inch (the exact thickness of the hinge) off the top edge of the back of the box so the hinge would be recessed. This allows the lid to sit directly on the sides of the chest and minimizes stress on the hinge when we use the chest as a step. I also took care to true the lid to the top, to prevent the hinge from working loose over time.

To hide the joint between the plywood bottom and the sides of the chest, I ripped ⅜-inch trim from the ¾-inch lumber. I pre-drilled the trim pieces and attached them using ¾-inch #6 brass screws.

Rope handles

The handles I made are rather plain and there are certainly other ways to accomplish this. I cut a 3- x 4- x ¾-inch block for each side of the chest, clamped the two blocks together, and drilled three evenly spaced ½-inch holes lengthwise through the joint to give me three half-round grooves in each block.

A sea chest can be constructed quite simply. The corners are butted, no fancy miters or joints, and the trim around the base hides the joint between the sides and the bottom. Handles, usually rope, can be plain or fancy, according to the whim or skill of the maker.

To make the handles, I started with two 15-inch lengths of old ¾-inch three-strand rope. I whipped each length twice, about 3 inches from each end (leaving a 9-inch span between the whippings), then unlaid both ends of each length. I now had three 3-inch strands I could pinch between the grooved blocks and the chest sides.

After pre-drilling a handle block for eight ½-inch #6 machine screws, I overlapped the strands in the grooves and applied tape to hold them while I attached the block to the side of the chest. Inside the box, I cut the bolts flush with the nuts and polished them with a Dremel tool. In retrospect, the nuts could have been countersunk.

The handles are strong, comfortable, non-scratching, and compact enough to fit the narrow space I had to work with. I don't possess fancy marlinspike skills, but if I did, this would be a fine place to showcase them.

Finishing

Before finishing the sea chest, I trued all of the corners and laps with a disk sander and a 150-grit disk. I followed that with a finish sander, working down to 220-grit. Well-rounded corners are part of the look and are safer on a boat than sharp corners.

Traditionally, sea chests were painted a muted color and only the inside of the lid would be decorated and bright. A tray was sometimes added to hold smaller items. Paint best withstood hard knocks, while the interior was the one place on board a sailor could express his personality through decoration. However, Laura preferred ours be varnished, and it works, I think. I can always paint it later; going from varnish to paint is more reasonable than the reverse.

The sea chest's sloped sides allow room for the handles, at left, and let the lid open a little past plumb so it stays open, below.

A welcome addition

After two weeks of use, I added a salted varnish finish to the top of the lid, as the surface was too slick for use as a step. I simply masked the area, laid on a heavy coat of varnish, and sprinkled it liberally with coarse salt. After the varnish was dry, I washed off the excess salt with water. This treatment does not hide the natural finish and is easily sanded smooth for refinishing.

The result of an evening's work is a functional and nautical addition that fits well on board any boat, from traditional to very modern. A sea chest like this might even make a nice gift for a special sailor friend or shipmate.

Drew Frye cruises Chesapeake Bay and the mid-Atlantic coast aboard his 34-foot catamaran Shoal Survivor, *searching for out-of-the-way corners known only by locals. A chemical engineer by training and a 40-year climber and 30-year sailor by inclination, he brings a mix of experiences to solving boating problems and writing about them.*

Kendrick (9) and Jacqueline (10) aren't sailing, but they're happy just waking up aboard their parents' 1989 Catalina 25, *Fair Lass*, pictured here at the State Marina in St. Ignace, Michigan. Send michael_r@goodoldboat.com a favorite boating photo. If we select it to publish in Mail Buoy, we'll send you a *Good Old Boat* shirt or cap like we did these kids' mom.

continued from page 7

On newsstands now

The number of sailing publications carried at our local Chapters (a large bookstore in a major South Keys neighborhood mall) has declined steadily over the past two years. I'm not sure if this decline is everywhere or just reflects local demographics. However, I noticed the other day that *Good Old Boat* is the only remaining sailing publication they carry. You are definitely doing something well!

–Ash Wesch, Ottawa, Ontario

Rowing advice

I just got around to reading Karen Larson's "Pulling Her Weight" (March 2017). I have been rowing for many years, especially since building a dinghy 15 years ago and, at the same time, building oars designed by Pete Culler. I followed the instructions in an article Rick Cahoon wrote for *WoodenBoat* magazine ("The Long Oars of Pete Culler," July 1986).

According to a formula in the article, the "correct" length of the oars should be calculated from the dinghy's dimensions. The resulting oars will be long and will overlap, requiring some practice in the backstroke to row cleanly (I lead with the left arm). Once the backstroke is mastered, the forward stroke will provide maximum power and allow more body effort as opposed to mainly using the arms.

Just thought I would "weigh in." Keep up the good work at *Good Old Boat*.

–Terry Sargent, s/v *Valhalla*, Philippines

Anti-arachnid pooch patrol

I was pleased to learn that I am not the only sailor taking the fight to stowaway spiders ("Spider Wars," September 2016). In a fashion similar to your correspondent Bob Allenick (Mail Buoy, January 2017), my faithful pooch Clara and I embark on a nightly Spider Patrol. Once we have one in our sights, a rapid but loose grab, then a flinging action submits the enemy to the sea. Problem solved, with no messy toxic sprays required. If we have been away from the boat for a while, it takes about a week to clear her of all but a few stragglers.

–Tony McBride, Kingston, Ontario

We publish additional letters in our bi-monthly newsletter, along with new articles and book reviews. If you don't receive the newsletter announcement email, contact Karla (karla@goodoldboat.com) or click the starburst at the bottom left of our home page at www.goodoldboat.com. We love to hear from our readers! Send letters to the editor to michael_r@goodoldboat.com.

A dinghy cover with backbone

Shedding water is the key to longevity

BY GARY GERBER

When inflatable dinghies are stored outdoors, they need protection from the sun, rain, windblown leaves, and wildlife droppings. Of the commercially available covers, some do not include a means to "tent pole" the cover so that it sheds rain and snow. Those that do rely on a single adjustable pole for support, a method that allows pockets to form in the cover where rainwater will pool. High wind and the weight of the accumulated water can unbalance and collapse a single pole. I used to rely on a single pole but, even after I added a plywood base to stabilize it, high winds and pooled water would eventually dislodge the pole.

My friend John Gaston of Annapolis devised an inexpensive solution to the problem of supporting a dinghy cover. I came to appreciate his approach and today, between John, me, and my brother-in-law, we have four dinghies, each stored in a different setting, some with an outboard mounted, some without. Small tweaks to John's approach allow it to work in all four cases.

A PVC cover support can be customized to suit any shape of dinghy. A long ridge, at top, creates sufficient height at the ends to shed rain and snow. In a variation of the design, the feet are braced against the bow, above left, and transom, above right.

John's cover support is a framework assembled from 1¼-inch PVC pipe, assorted elbows, and PVC cement, inexpensive materials that are readily available at hardware stores. A standard 10-foot length of pipe costs in the region of $5 and can be cut with a hacksaw. I permanently joined some smaller pieces with PVC cement and left others unglued so I can disassemble the frame for storage. Gluing PVC is quick and easy, just be sure to buy PVC glue and follow the directions on the can. (Black ABS pipe is an acceptable alternative but requires an ABS glue.)

While the design can be customized to work best with any particular dinghy, a couple of design principles will apply in all cases. In short, the longitudinal ridge support should be high enough to provide adequate slope for water runoff and to shield motors and motor mounts (when installed), and it should be long enough to spread the cover over most of the length of the dinghy.

Gary Gerber, a retired industrial designer, has been sailing for more than 45 years in coastal New England, the Caribbean, and the Mediterranean. He lives in Annapolis and sails his 1970 Morgan 33 on Chesapeake Bay.

An assembly like this support can be difficult to store, at left, but if some of the joints are slip-fit rather than glued, it can be taken apart for storage. The backbone is only part of the solution. The cover must be tied down so it stays taut enough to shed rain, at right.

Versatile portable lighting

Clip-on solar lights illuminate and identify

BY GARY BRATTON

For about $5 each, I made wireless lights that I can install anyplace on the boat we have a 1-inch rail to clip them on to. They burn almost all night and take no power from the house batteries. Rather than barbecue in the cockpit with a headlamp, I clip one of the lights nearby and have plenty of light to see what I'm doing. When *Country Dancer* is on the hook, the lights help us find her in the anchorage, and they are better than a masthead anchor light at making the boat visible to close-in traffic. For overnight passages, the lights can be quickly unclipped and stuffed into a bag or ice chest.

All I used to make these lights were high-intensity solar yard lights and ½-inch white schedule 40 PVC plumbing parts. I use yard lights with a rated light output of 7 lumens; anything lower is a waste. Also, I found that lights with plastic lenses are lighter than those with glass lenses and thus less likely to cause their mounts to rotate.

To mount each solar light, I used a ½-inch PVC saddle tee with a threaded female end and a PVC elbow with a threaded male end. (These components are used in sprinkler systems to add a sprinkler head in the middle of a run without cutting pipe.)

To assemble my lights, I first screwed the elbow into the tee — snugly but not too tightly, as I needed to be able to rotate the elbow later. Next, I cut the plastic "leg" on the solar light down to a stub, then secured the stub into the female end of the elbow with hot-melt glue.

Multiple uses

On *Country Dancer*, I clip these lights on to our bimini frame, lifeline stanchions, or bow pulpit rail. Sometimes I'll clip a few to our solar-panel array, where they don't interfere with night vision, don't tangle in the sheets, and are high enough to be easily visible on our late-night dinghy rides. Whether I mount them on a vertical rail or horizontal rail (or something in between), I can rotate the elbow in the tee to orient the light.

Lights of various colors can be added to distinguish a boat from others in a crowded anchorage. For offshore duty, or if a saddle tee is a bit loose, a small hose clamp will hold them very securely.

While in the Bahamas, I decided to make a couple more lights to better mark our boat in the anchorage, but I couldn't find a store that sold the saddle tees. Instead, I bought regular PVC tees and used our Dremel tool to cut away material until I had saddle tees. (I've also done this to make lights for rails of different diameters from PVC tees of matching diameters.) When a saddle tee slides around on the rail too easily, I stick a layer of electrical tape on the underside of the saddle to increase friction.

Gary made his $5 light from a high-intensity solar yard light, a PVC saddle tee, and a PVC elbow with a threaded end, above.

After cutting the stem of the light to a stub, he applied hot-melt glue and stuck it into the PVC elbow, above. The saddle tees clip onto any 1-inch rail, at left. If the boat's motion might cause them to rotate, he secures them with hose clamps.

I highly recommend using the cheapest lights available, as long as they're 7 lumens or brighter. Because of the way we use ours, they become gifts to Poseidon more often even than expensive sunglasses, so it pays to make a few extra.

Gary Bratton went to the University of Washington, was a professional motocross racer, home builder, realtor, general manager of a boatyard, line supervisor at Endeavour Yachts, and started an IT consultancy in 1990 that he sold in 2007. He and his wife have been full-time cruisers since 2013.

Artisanal deck-plate key

The answer when "universal" isn't quite

BY GLYN JUDSON

You can buy a key for the old-style slotted deck-fill caps, but about the only type available is a universal key designed to fit several cap styles. I've found the curved-blade side of the key, intended to fit my style of fill cap, is not a close fit, and it's hard to grip the universal key firmly enough to gain the leverage sometimes needed to remove a stubborn cap. I figured I could make a purpose-built key that did a better job.

I crafted my deck-fill key from materials lying around in my garage. It consists of a shaped piece of ⅛-inch bronze and bookend handles made from leftover teak.

My biggest challenge was determining the radius of the curve in the deck-fill cover. I'm no mathematician, so I did it the simplest way I could think of: I pressed a chunk of modeling clay into the slot in the cap. That gave me the exact shape and depth for the perfect key. It turned out that the curvature matched that of a 2½-inch hole saw, so I used the hole saw as a template to scribe the shape onto the bronze.

The rest was pretty easy. I cut out the rough shape of the hilt and blade of my tool on my band saw, then filed it to shape and sanded it smooth.

The handle is two pieces of teak attached independently, one each side of the hilt. Using a 7/64-inch bit, I drilled four holes along the centerline of the hilt, two pairs about ¼-inch apart toward each end, then tapped them for 6 x 32 bronze machine screws. The offset ensured the screws on opposite sides would not bottom out against each other but would penetrate the opposite-side teak.

Before assembling the teak pieces to the key, I spray-varnished them and finished off the bronze surface with 120-grit paper on a random-orbit sander. I used a utility knife to score the hilt and insides of the varnished handle halves before applying thickened West System 105 epoxy to both surfaces and fastening the teak pieces in place.

Glyn Judson and his wife, Marilyn, have sailed Santa Monica Bay and the Channel Islands together since 1982, for the last 20 years on their 1979 Ericson Independence 31, Dawn Treader, *that they keep in Marina del Rey, California. They always sail with Glyn's current guide dog in training.*

Boats for Sale

Westerly Tiger 25
1969. Well-maintained fin-keeled sloop, hull #90. 7-hp Volvo MD1 diesel. Awlgrip '04. FB main, Genoa, working, No 2 jib, spinnaker, whisker pole, Furlex furler, Evo ST 30 chrome sheet winches. Numerous electrical upgrades to hull, mast, control panel, and starter/generator circuits. GPS/plotter/sounder, VHF, and AP. Forward cabin w/enclosed head. Propane stove, enlarged icebox, and modified dinette converts to double berth. Steel cradle and much more. Dollar Bay, MI. $9,750.
Jim Spence
spencetimes2@gmail.com

Chris-Craft Apache 37
1967 Sparkman & Stephens-designed sloop. Yanmar 3YM 30 diesel w/125 hrs. RF headsail and FB main. Aft-led halyards. Awlgrip hull and deck. Quick little boat. Norfolk, VA. $28,000.
George Wigfall
757-486-0022
gwigfall2@cox.net

Pearson Vanguard 32.5
1964. Championship boat. Exc racer/cruiser. Very good cond. 3' bowsprit. Racing main and genoa, cruising main and genoa. Many extras. 3GM30F Yanmar engine w/500 hrs, feathering prop. Hempstead Harbor, Long Island, NY. $25,000.
Robert Tatem
516-984-5654

Menger Cat 19
1995. Nice catboat, lightly used by a string of senior mariners. Includes Yanmar, depth, 2 mainsails, cockpit cushions, stove, Porta Potti, etc. Lots of stuff included. In the water and ready to go. Original EZ Loader trailer in decent shape (not registered) is free if desired. New River, Jacksonville, NC. $12,000.
Dale Weston
910-455-9916
majortest@earthlink.net

Bristol 32
Classic 1975. Turnkey! Very dry! Restored: hull painted, deck painted w/non-skid. Deck hardware, toerails, handrails, eyebrows all rebedded. Fabricated new rubrail, little-used new main and RF jib, bungee-retractable lazy-jacks, new SS opening ports w/ screens, custom-built fridge, nav station and storage cabinet. Press. H/C water system, nearly new 25-hp diesel, canvas like new. Owner's age forces sale. Chesapeake Bay. $35,000.
Frank Parish
410-231-2045
ftparish@comcast.net

Willard 30
1995. Custom-built downeast-type trawler. To step aboard is to return to an era when naval design featured rugged construction and traditional layout. Interior is light, airy, and uncluttered. Salty looking with bronze opening ports and cowl vents and stabilizer poles w/ paravanes. Heavy displacement, 2,500-lb encapsulated lead ballast. Extra fiberglass in bilge provides great stability. Mechanicals all modern. Dinghy included. Long Island, NY. $79,000.
Andrew Galasso
631-722-3400
Andrew@lighthousemarina.com

Pearson P-28
1977. Meticulously maintained classic Pearson sloop w/many new upgrades including new Cutless bearing, SS prop shaft, PSS dripless shaft seal, new rudder bearings ('14). New manual head w/Y-valve and 13-gal HT w/electronic tank-level sensor. Windex, compass, digital D/S. USCG documented. Call or email for more info/pictures. Near Albany, NY. $8,000
Gary Speckman
518-755-1943
speckman@mhcable.com

Allied Seabreeze 35
1971. Worthy passagemaker designed by MacLear & Harris. Full keel w/easily retracted CB. '06 Yanmar 3Y30MFW w/1,400 hrs. New primary drive shaft, dripless shaft seal, Cutless bearing, 12" 3-blade Max-Prop '16. Running rigging, mast and boom painted 2-part poly, rigid vang, lines led aft, Ullman FB main w/Strong Track, 130 furler '15. Transmission rebuilt '14. Raymarine nav/radar '13. Standing rigging '12. Stored indoors. Ready to sail away. Anacortes, WA. $48,000
Phil Smith
214-862-5483 Phil
510-579-1887 Pat
smith.clan@sbcglobal.net

C&C 26
1979. Classic C&C, *Encounter*. Great sailer, good sails, RF, Yanmar diesel, wheel steering, older electronics, deck recored. Steel cradle, inside heated storage. Good old boat ready to go sailing. North MI. $8,500
Jake Bishop
352-259-0705 or 231-838-1511
jjdbishop@gmail.com

Classic 42' wooden yawl
1964 Sanderling International 800. Robert Henry design custom built by Jon de Dood in Germany. Completely rebuilt with new cabins, interior, new decks, and major hull work completed in '00 and maintained in great condition. Enclosed center cockpit w/ hard dodger and bimini make her the perfect cruising yacht. New Beta 50-hp engine '14. All systems replaced: electrical, plumbing, electronics. Watermaker, and solar panels. Well equipped for immediate cruising by her new owners. Pictures at www.robinhoodyachts.com. West Bath, ME. $75,000
Robert Deans
207-389-6180
sanderling2000@yahoo.com

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www.goodoldboat.com/resources_for_sailors/sailing_classifieds/

Boats for Sale, cont

Sea Sprite 33
1984. This is not your father's Sea Sprite. *Panache* has been featured in 2 episodes on PBS. Relaunched in '07 after $200,000+ keel-up restoration with more upgrades every year since. New Awlgrip Timeless Green hull paint in '15. Brightwork refreshed every year, fresh bottom paint '16. Butterfly hatches added '14. This full-keel vessel backs like a dream with its powerful bow thruster. Manitowoc/Kenosha, WI. $99,500 OBO

Richard Charette
847-867-8296
richchar96@gmail.com
www.panachesailboat.com

Cabo Rico 38
1984. Handsome, classic design by Bill Crealock. Cruising cutter, full keel, protected rudder. Heavily built ocean cruiser. Fresh water since 2004. Good, clean cond. Professionally restored hull. Deck recaulked. New bowsprit. New main, Genoa, spinnaker, staysail, running rigging. Many reviews including in *Good Old Boat*, May/June 2012. West Michigan location. Stored inside. $95,900.

Warren Fritz
269-345-8004
jubilate38@gmail.com

O'Day 272 LE
1987. Wax and bottom paint and ready to splash. New 130 headsail and RF in '14, mainsail in good shape. New Nexus D/S '15. 2 new Group 27 batteries '14. Westerbeke 10/2 diesel in good shape, alternator rebuilt '14. Manual main traveler replaced with line control version. 2nd parallel Racor diesel fuel filter added. Got a new old boat, so this one's gotta go! Brookhaven, NY. $10,000

Mickstr66
Mickstr66@yahoo.com

Ranger 37
1974 racer/cruiser. Gary Mull design, v.g. cond. Same owners 36 yrs. Raced on Great Lakes except last 11 years. Recent new fridge, stove, and Yanmar YM30, 280 hrs. Many extra sails. Custom cherry overhead adds beauty to cabin that sleeps 9 for racing or comfy cruising. Many extras make *Wildcat* ready to sail away. Daytona Beach, FL. $36,000 OBO.

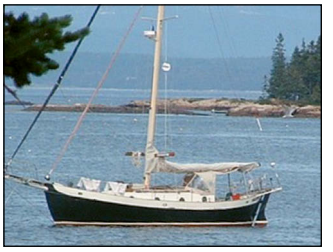
Louise Drinnan
386-255-1048
Anne:716-549-3518
sailingtoday2@gmail.com
sites.google.com/site/ranger37wildcat

Bruce Roberts 34
1986. Freshwater boat, fully prepared for offshore. Strong C-flex hull, rigid dodger, new 2 x 250W solar panels. Mast, boom, all standing rigging, mainsail replaced in '05 refit. Everything else replaced during total refit in '13-'16. Because of changed travel plans, we are buying a larger boat. Whitby, Ontario. $49,000.

Anton Pachkine
416-275-8495
forceanboats@gmail.com
www.mistyblueii.com

Cape Dory 25D
1982. Wheel steering, 2 propane tanks for BBQ and propane stove. Fridge, cockpit cushions, dodger, many extras. Ready to sail away or drive away on custom trailer with aluminum wheels. Leech Lake, MN. $24,000

Frank Salomonsen
507-990-9598
salomonsenfb@gmail.com



32' steel cutter
1986 Merritt Gypsy Rover design. Custom built. Classic mahogany interior. '03 28-hp Volvo diesel. LOA 40' 6", LOD 32', LWL 28', disp. 19,000 lb. Recent survey. Full listing and photographs upon request. Boothbay, ME. $69,500

Alan Boyes
207-633-5341
alan@winterisland.com

North American Spirit 6.5
22' swing-keel, masthead sloop. Merc 6-hp OB. Running rigging good, all standing rigging new in '15. Also Humminbird 525 fish/depth. Porta potty and good cushions inside and out. Included: surge-brake trailer. Brakes and hubs serviced '14, new tires '10. Now in Pella, IA. Moving to Sioux Falls, SD. $4,500

Steve Tudor
515-249-9811
studor16@msn.com

Catalina 25, Interlake 18
1985 Catalina 25: recent cushions, older serviceable sails, '10 Tohatsu 4-stroke, bimini, EZ Loader trailer w/rollers, $6,500. 1957 Interlake 18: solidly built fiberglass sloop w/spruce spars, good sails, and trailer, $950. Or trade either for travel trailer, property, another boat. Both are freshwater swing-keel boats w/good trailers and tires. Southwest MI.

Michael Murphy
269-624-6583
modalservi@aol.com

Tartan 31 Piper
1993, aka Tartan 3100. *SunnySide* is a great sailer w/super accommodations and shoal draft: perfect for cruising her lifelong Chesapeake home. Maintained in exc. cond w/TLC. Improvements include North 135 RF jib and FB main, Strong sail track, Garhauer vang, Garmin chartplotter, Standard Horizon VHF/AIS, Xantrex charger, bimini, Stamoid winter cover and much more. Health issues force reluctant sale. Near Baltimore. $47,500

Jim Sylvester
410-252-7184
jtll@comcast.net

Columbia 8.3
Original owner, freshwater boat. Yard-maintained, excellent cond. Upgraded A4. Custom tri-axle trailer also available. Egg Harbor, NJ. $6,000

William Hulanick
609-641-5459 or 609-226-0401
hulanick1@comcast.net

Pearson Vanguard 32
1966, hull #331. Wonderful Philip Rhodes design. Original engine replaced w/Universal diesel '02 (only 237 hours). Large sail inventory plus RF and upgraded primary winches. Freshwater boat w/same owner for 41 years. Stored winters in heated building. Holland, MI. $25,000

Henry DeJong
616-335-3144
hysinc@gmail.com

Chris-Craft Cherokee 32
1968. Rare and classic S&S sloop *Titania*. Responsive, well-balanced fin-keel design a delight to sail. Always on Lake Ontario. Great coastal cruiser for a couple or to solo. Solid hull and good deck: no balsa core! Rebuilt A4. New keel bolts and handrails '15. Ready to go but needs TLC and cosmetics. See *Good Old Boat* July '15 or email for more photos. We are downsizing. Fair Haven, NY. $7,500.

Susan Gateley
315-594-1906
susan@silverwaters.com

Islander 29
1967. Well maintained in good cond. Bristol brightwork. Raised dinette saloon w/ample storage throughout. New interior and cockpit cushions. New holding tank system. FWC A4 w/electronic ignition runs well. Vapor and high-water alarms. ProFurl RF, 3 anchors, 2 Plastimo cockpit compasses, Datamarine D/S, 3 bilge pumps, 2 VHF radios, new stereo, Raymarine GPS. Many extras! Beverly, MA. $11,000

Dean Gibbons
989-362-1016
deangibbons67@gmail.com
islander29.tumblr.com

Pearson 365
1976, hull #23. Well-loved and maintained ketch. Second owner. Always fresh water. Long-distance cruising plans never materialized; looking to downsize. Most recent upgrades/improvements include: assym, spinnaker, main, mizzen, Harken RF. Re-powered w/Beta 38 diesel and Velvet Drive, Max-Prop, dodger, bimini, epoxy barrier-coat bottom, Cutless bearing, all new in past 5 yrs. Heavy-duty trailer available. N. Lake Michigan. $32,000

William McKinley
231-228-4655
mckinleyhill377@yahoo.com

Matilda 20
Beam 7'10", draft 9" board up, 4' down. 105' main, 95' jib, 180 genoa. One owner. Garage kept. Freshwater only. Pristine, near-new cond. Very nice interior. New Suzuki 6-hp, new Unifoil rudder. Featured in *Good Old Boat* Nov '14. Trailer has new wheels and tires. Easily towed w/Subaru Outback. Chattanooga, TN. $6,000.

Brooks Northern
423-870-3331
northernbc@epbfi.com

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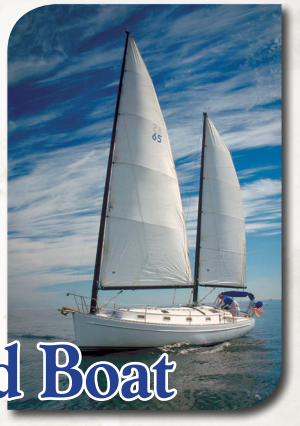

Good Old Boat

5 YEARS AGO/MAY 2012

- Sailboats: Alberg 35, Cabo Rico 38, Caliber 28
- Refit: Hallberg-Rassy Mistral 33
- Don Launer: Boom Vangs 101
- Cruising in the golden years
- Adhesive caulks tested
- DIY projects:
  - Instrument pod
  - Deck prism
  - Whisker pole
  - Bottom cleaning

10 YEARS AGO/MAY 2007

- Sailboats: Portland Pudgy, Yamaha 25, Pearson 36, Jeanneau 40
- Don Launer: Anchor Sentinels 101
- Creative waterlift muffler
- R/C model Lasers
- All about night sailing
- The need for boat brokers
- DIY projects
  - All-purpose dome light
  - Another use for PlasTeak
  - Rudder stops

15 YEARS AGO/MAY 2002

- Sailboats: Freedom 33, Sabre 30
- Profile of George O'Day
- A history of Columbia Yachts
- Don Launer on prepping for a blow
- Ted Brewer's fireside chat
- Keeping birds off your boat
- What spares to keep aboard
- DIY projects
  - Overboard ladder
  - Rubrail insert
  - Head maintenance

Lessons from the birds

Do not poo-poo the smarts of swallows

BY SUSAN PETERSON GATELEY

Birds and other wild creatures that inhabit our boating waters are tough, adaptable, and innovative — and sometimes annoying. But always they add interest to the outdoor scene and, by observing them, we who sail can learn life lessons in parenting, persistence, and courage.

I sail on fresh water where much of the boating-associated wildlife has wings. Along with the ever-present gulls and terns, the trim, graceful barn swallows are summer regulars around the docks of our upstate New York harbor. They and their close kin, the purple martins, enjoy hanging out on moored boats. The stationary yacht serves as a secure, peaceful little island roost.

Our two-master lies at a mooring. The triatic stay that runs between the tops of her masts is a wonderful purple martin roost. All summer long, the birds perch shoulder-to-shoulder and socialize while munching on large dragonflies and cicadas. Martins are messy eaters and, before long, discarded insect parts litter the decks. Their poop stains, and eventually degrades, even the durable fabric of our dodgers and sail-covers. So we try to discourage them.

Each spring, we go aloft and stretch monofilament line between the masts, just above the stay. Last year, the birds figured out a way to slip under it. We rattled halyards to shake them off, but soon that ceased to bother them. They even rode along with us when we departed the mooring under power. I suppose we should be glad that they weren't ospreys.

Their cousins, the barn swallows, prefer the closer-to-deck-level lifelines. As summer moves on, their children join them. Swallows often raise two broods a year, so by August we are usually hosting a pretty good crowd. Even little poops build up when you have 50 or 60 birds aboard. The best solution seems to be daily use of the boat. If our boat leaves its mooring for a few hours, the flock moves to one that's still moored.

I grew up with barn swallows as a part of our family farm life. I loved to watch their swift, graceful flight over the fields and pastures, and I still enjoy their friendly chatter. I never thought of them as being particularly bright, as birds go. Then, one morning on the boat, I watched a parent bird arrive at regular and frequent intervals with a load of small midges to feed four youngsters, just fledged and still sporting bits of baby fuzz. With each trip, she moved down the line, stuffing food into successive hungry maws. And twice I noticed the same fluttering little guy reposition himself at the head of the line after Mom left, so as to get an extra helping!

A year or two later, I saw another example of bird individuality and parenting. We were parked at a marina dock for the night and comfortably settled in the cockpit for happy hour. Soon we noticed a barn swallow nest tucked under the anchor roller of an adjacent boat that apparently had spent the last two months tied up to the dock. Two babies teetered on the boat's anchor. Two others clung to the nest. Over and over, the parent birds brought food to the two little fellows perched on the anchor, ignoring the frantic cries of the nestlings. One very hungry baby stretched desperately over the nest edge, begging.

No dice. "You gotta spread your wings, kid," you could almost hear the parent say, as it brought another serving to the little ones on the anchor.

Finally he launched forth, swooped down toward the water and then, at the last moment, inches away from death, picked up enough speed to gain altitude and make the turn back to the anchor. As darkness fell, one famished baby remained in the nest. We wondered whether he'd make it. The next day, all the little birds were gone. I trust he took that leap into the unknown.

As I scrub the poop deck on a summer morning, I consider that it must take incredible courage to leave the nest and spread one's wings for the first time. When suddenly all the swallows respond to the call of the South and vanish in late August, I wish I could follow them. As Water Rat, in *The Wind in the Willows*, listened to swallows chattering about their upcoming journey, he knew the days pass and never return.

Our mooring suddenly seems so quiet after they depart. But my restless urge passes. We settle in for another winter, comforted by the thought that spring, and the birds, will return next year.

Susan Peterson Gateley writes and sails on Lake Ontario. She holds an MMC to 100 tons and teaches basic sailing on Little Sodus Bay and recently completed a one-hour video on Lake Ontario. Her books and DVD are available through chimneybluff.com. She writes and blogs at susanpgately.com.

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