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This foggy scene on Tuttle Creek Lake in Manhattan, Kansas, caught the eye of Cathy Mores. *Blue Jeans* is a Catalina 25 owned by Daryl Strouts, who is sailing her here with Bob Mullen. They are members of the Blue Valley Yacht Club. cathymoresphotography.com

On the cover

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FRONT DETAIL

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We finally jumped into the sea of social media. We've had one foot in Facebook (facebook.com/goodoldboat) long enough to get familiar with it. Why not put the other foot in? Yep. We're learning to "Tweet with Twitter" (@GoodOldBoat). With this one, we're still treading water. Please follow, but go easy on us as we try to stay afloat in a torrent of tweets.

Winter warmers

Winter's coming on once more in the northern prairie and it was a doozy last year! Even folks in Florida might appreciate a sweatshirt when the sun dips into the Southern Hemisphere. We're introducing a new line of sweatshirts: red, blue, and black with a special compass and logo. They have a zippered front for ease of entry and a hood for those really nippy days. We hope they'll keep you warm all season! www.goodoldboat.com/

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AudioSeaStories.com



A nod to our shared past

Boatbuilders and Boat Designers are two of our favorite Archive eXtractions. These are collections of articles we've published over the years about the naval architects who designed our good old boats (Carl Alberg, Ted Brewer, Bill Crealock ...) and the companies that built them. (Tartan, C&C,

and the series of the series o

Sabre, Catalina . . .) The files, in PDF format, are available as downloads from the Good Old Boat downloads site, www.audioseastories.com.

Each collection of articles is \$25. There's some wonderful history within those digital pages. If you need a preview, you can take a look at the table of contents of each before ordering. We think they'll be favorites with you too.

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Labels can divide us

But we are united under one: sailor

Ye grown weary of the labels that divide us: deniers, alarmists, extremists, centrists, greens, tree-huggers, libertarians, progressives, socialists, and communists. Also One-Percenters, Occupy Wall Streeters, Tea Partiers, Baby Boomers, Millennials, Gen Xers, Gen Yers, workers, taxpayers, and welfare takers. I won't even start on the religious labels we use.

Sailors have one thing that unites them: sailing. Our favorite activity is a social equalizer like few others. If you handle a sailboat well, it matters not what your political, religious, or environmental views happen to be. You will be respected by your fellow sailors. Your job status (or lack of one), the neighborhood you come from, and the car you drive may matter elsewhere, but they don't matter much at the local marina or yacht club where you keep your boat.

If your boat is a bit larger or a bit smaller than the next guy's, that's unimportant if you keep it up nicely and handle it expertly. Even if you're a brand-new sailor who has just arrived at the marina and is learning the ropes, you'll be instantly accepted as part of the community of sailors. Your **BY KAREN LARSON**

dockmates might laugh at your humorous learning experiences but will forgive you for them because they have all been there and suffered the same indignities.

You can be a racer or a cruiser, a trailer-sailor, a keelboat sailor, or a multihull fanatic. You can favor the catboat, the schooner, or the junk rig. It matters not. You can be sailing a good old boat or a shiny new boat. You can be a circumnavigator, a local coastal sailor, a weekender, or a daysailor. You can sail in salt or fresh water — or even on "hard" water. You might be a solo sailor or a family cruiser or a partier. All are loved the same (pretty much) and accepted among the community of sailors.

I have observed, however, that there is just one thing that still divides us. Sailors have yet to welcome powerboaters into their midst. Trawler boaters and former sailors can gain admittance to the club. But woe upon those power yachters who have no previous sailing experience.

Sailors are perfect in every other way. Maybe we should work on being just a bit more open-minded when it comes to our fellow boaters, the stinkpotters. A



Been there ...

I got a good laugh out of instantly recognizing the location of your September 2014 cover. Here's a pic of *Raven*, my Fairweather Mariner 39 (aka the Westsail 39), enjoying the same spot in the summer of 2013. The bay is in Glacier Bay National Park in front of the Lamplugh Glacier, a tidewater glacier that is behind the photographer in this view. It's a great anchorage with access to other relatively nearby glaciers, including the Johns Hopkins Glacier, which is a much more dramatic setting but is only accessible after the seals have weaned their pups in late summer.

-Kurt and Nancy Lorenz, Nevada City, Calif.



ere, adjustments,

Lightning protection?

I read David Lynn's article on lightning protection (September 2014) and must say, as a former electronics tech and long time ham radio operator, I remain unconvinced that there is much that can be done to really protect a boat and its electronics from or during a lightning strike.

Our previous boat, a 1988 Catalina 30, suffered a near miss strike a few years ago while on its cradle. I never found out what the lightning hit in the marina, but the electromagnetic pulse (EMP) generated by the strike and/or current traveling through the marina's wiring grid destroyed the marina's phone system. EMP damage to our boat (that I spent that season repairing) included loss of all of our instruments, the stereo, the speed impeller, the tank monitor system, and the engine's electronic tachometer.

This past Friday, at 1:16 a.m., lightning directly struck a brand-new Beneteau 37 that was sitting in our marina. Witnesses to the strike watched glowing pieces of its VHF antenna shower down on the boat's deck. The boat was pulled by the marina the following morning. Looking over the boat you could see exit holes in the rudder, exit tracks/ flares around all of the through-hulls, and pinhole exit points all over the boat's keel. Marina personnel discovered all the boat's instruments were destroyed. They were surprised the engine started and that they were able to power the boat into the launch bay. It will be interesting to find out how much damage was done to the interior of the boat and its wiring.

Then there was the collateral damage to other boats on the dock. One boat lost its wind indicator system and its battery charger — second time for them: they'd lost the same gear the year before as collateral damage to a strike in our neighboring marina. Damage to another boat on the dock, a brand-new Catalina 351, included loss of the boat's chart plotter and depth sounder.

My wife and I were on board our boat, a brand-new Catalina 355, located on the other side of the marina from the boat that was hit. The lightning flash and boom were so loud my wife was convinced we'd been hit. The EMP from the strike momentarily shut down our boat's tank monitor system, but it survived. We lost the stereo, and we may have a problem with our battery charger. Fortunately, the rest of our instruments and electronics all survived.

While sailing on the Hudson River, Bob and Jean Maier spotted two bald eagles perched on a navigation tower just across the river from Sing Sing Correctional Facility and only a few miles (as the eagle flies) from the Big Apple. Send karen@goodoldboat.com a high-res photo of your favorite aid to navigation. If we publish it, we'll send you a Good Old Boat cap or T-shirt.

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November/December 2014

and lightning protection?

Bottom line, good luck with trying to protect your boat from a strike. As the article's author, David Lynn, indicated, even with grounding systems installed, the current and voltage in a strike is going to go where it wants. Even if you're not hit directly, modern solid-state electronics don't survive EMPs well, and cable TV and power cord connections in a marina provide yet another path for lightning to damage your boat.

-Dave Worfel, Rockford, Mich.

"Sailing a new boat is a mega adjustment"

Truer words have never been spoken. ("Learning the Ropes 2.0" by Karen Larson, September 2014.) After owning and sailing a series of 26- to 27-foot sailboats over the last 30 years, I recently downsized and bought a 15-foot

trailerable West Wight Potter. Easy adjustment, right? Not so much. The first time out I forgot to lower the keel (you have to lower a keel?), resulting in an unresponsive rudder and an intimate encounter with a dock piling that left a small blemish on her cabintop. The second time out I forgot to lower the rudder (you have to lower a rudder?), again

resulting in a less-than-perfect steering response. Luckily, I noticed this before there were any further close encounters with immovable objects. Going from something larger and more complex to something smaller and simpler does not eliminate the adjustment period or the need to pay attention to new routines. -**Don Clutter**, Arroyo Grande, Calif.

Chris Allen and Carol Jackson of Port Angeles, Washington, sent us this photo of *Forty Two*, their Lord Nelson 35, in Drainy Inlet on the central coast of British Columbia. Send your high-res sailboat photos to jstearns@goodoldboat.com and we'll post them on our website. If we publish yours here, we'll send you a Good Old Boat T-shirt or cap.



Conrad is spot-on

Conrad Cooper's "Journey with no end" (September 2014) is absolutely spot-on and so near to my own experience I might have written it — with the exception of the guitar, that is. When I bought my good old boat, a 1977 Down East 45, four years ago, it needed some work and I also planned to change the rig from ketch to schooner. I kept a pretty long "to do" list and even a "do it when you can" list. Just like Conrad's, they rarely shrank because, as we all know, when you start a job on a boat you frequently discover other problems that you have to add to the lists.

I also went at it head first, because our plan was to cruise the Bahamas each year when the hurricane season ended. We have yet to make it even once. Conrad is also right about burnout, and I have had a number of "sabbaticals" and

> sometimes had to drag myself back into the work. This is one reason older boats pass from one worn out (and penniless) owner to a new optimist. I still make a list, just to remind me and to prioritize, but like Conrad, "I now approach my boat work as a journey with no end." If you are able to do this, it certainly takes some of the pressure out of what is, after all, supposed to be fun. Well written, Conrad — I couldn't have said it better myself.

> > -Roger Hughes, Orlando, Fla.

continued on page 68

Sunflower, at left, is the newly launched good old boat on which Karen and Jerry are learning how to sail again.



Wing Ding II,

t the request of one of our faithful readers who has owned a Matilda 20 sloop since he bought one new in 1975, we decided to explore the seemingly timeless charms of this sturdy little trailer-sailer.

Brooks Northern is like many Matilda 20 owners who seem to keep them for very long periods of time and sail them in many different venues. Brooks, who is retired after a career in the U.S. Air Force, first saw this boat at the London Boat Show at Earl's Court and decided he had to have one. The boat's lineage and history spans a good part of the globe. At the time Brooks was shopping for one, there were several builders. The British-built version did not incorporate the moldedin hull liners, so Brooks opted to buy his boat, which he named Wing Ding II, from the best-known Matilda 20 builder in Canada.

Wing Ding II is based near Chattanooga, Tennessee, on Lake Chickamauga, a large lake formed by one of the many TVA dams on the Tennessee River. Brooks and I took her out on a day with very light air but with decent weather for photographs. We used the beautiful facilities of the Privateer Yacht Club as a base and owe them hearty thanks for their hospitality and help. Later, we were able to meet at my home marina at Paris Landing State Park on Kentucky Lake for another on-the-water session in wind that required us to reef down for some real go-fast sailing.

A lengthy history

The Matilda 20 was developed from a Robert Tucker design that was originally made available as plans. Quite a few were "scratch built" in Australia, the United Kingdom, and other places around the globe. These early ones were built with epoxy over plywood and also in molded fiberglass. Currently, a related boat called the Pippin 20 is being built in the UK. This is a production descendant of the original Tucker design and is said to be



a modernized version of the Matilda. (See "Resources," page 13.)

The Matilda's history in Canada begins with an East Indian immigrant of Chinese ancestry. Ti Ouyang arrived there with very few resources and a family to feed, but he was an accomplished woodworker and soon found employment at the Whitby Boat Works in Ontario, where he applied his considerable carpentry skills. Never one to be idle, he built a 16-footer at home, but ran afoul of Whitby management because the boat bore a rather too-close resemblance to Whitby's Albacore 16. Ti was fired from Whitby for that bit of well-intentioned piracy, but was hired back about a year later because his skills were so valuable. A good thing that was, too, as he only managed to

sell a couple of the knockoff 16-footers he called Cormorants. Later, Whitby fired him again over quality issues when Ti refused to compromise his woodworking standards.

This is when most of the Matilda 20s we know today came into existence. Having foresworn working for anybody other than himself, Ti began building a hull plug in a friend's garage that eventually launched the production runs of the Matilda 20, 16, and 23. The 16 and 23 models are guite rare, as the vast majority of the boats built were the "middle sister" Matilda 20s. As one might expect from his past

Brooks Northern and Wing Ding II, his Matilda 20, at top, call Lake Chickamauga, near Chattanooga, Tennessee, their home port.

a Matilda 20

experiences at Whitby, Ti produced a very high standard of workmanship and solid construction. The Matilda 20s had molded headliners and a host of other production details that were just not found in lesser boats of the same size in that time period. Brooks' boat is a testament to that and to this day could almost pass for new.

In the boatbuilding heyday of the early 1970s, Ti's sons became involved in the company, which subsequently created the Aloha series of much larger cruising boats. Ouyang Boat Works ceased operations around 1986 due to financial and market pressures the family business could not withstand.

About the boat

By the standards of that time period, the build quality is very good. Ouyangbuilt Matildas have cored hulls and decks and the layup appears very sound. The deck core is end-grain balsa and the cockpit and cabin soles might be either balsa or plywood, depending on the schedule in use at the time a boat was constructed. The deck has molded-in non-skid on all traffic areas and very high quality gelcoat surfaces everywhere else.

Ouyang used a hull-to-deck joint of the shoebox type that, Brooks avows, has "never leaked a drop." The joint is sealed mechanically and with an adhesive epoxy filler. Interior bulkheads and galley furniture are fitted into the molded one-piece overhead interior liner that has a slick and finished appearance and is easy to maintain.

The Matilda 20 has a conventional Marconi sloop rig with upper shrouds, single lower shrouds, a single set of spreaders, a split non-adjustable backstay, and a sturdy aluminum mast and boom. Wing Ding II has a pair of rather small primary winches on the cockpit coamings and a special ratchet-and-pawl winch for the stout steel cable that raises and lowers the centerboard. Her jibsheet tracks are mounted low and outboard and can accept a 1-inch car. Her mainsheet is attached at the boom end and leads to a traveler bar that is integral with the stainless-steel pushpit assembly and allows about 18 inches of lateral travel for the mainsail sheeting point. The mainsail has only one slab-reefing point but could use at least one more.

The stock rudder is of the kick-up variety and is a simple flat aluminum plate. It seems to me to be marginal in strength as *Wing Ding II*'s is bent a little to one side. A more modern and efficient foil shape has been shown to improve the pointing ability of sister ships. The centerboard is a flat, mildsteel plate with a ballast bulb at its tip.

Brooks has kept *Wing Ding II* in pristine condition. Her teak trim and companionway doors show a rich

BY ROB HOFFMAN

patina of teak oil and her gelcoat is shiny and spotless. She is much the same as when she was delivered in 1975, with upholstery colors and carpeting typical of that period. Brooks has never added even a VHF, compass, depth sounder, or bilge pump to her mostly as-delivered state of trim and completion. He has, however, devised and constructed a very serviceable gin-pole rig for raising and lowering the mast that enables him, unassisted, to easily step the mast and rig the boat in a very short time. He mostly daysails Wing Ding II and has overnighted on her, by his own count, only a "couple of times."

A vigorous lake sail

Our later session on Kentucky Lake was under gusty conditions with winds in the 15- to 25-knot range. We sailed a triangular course not unlike a club race with reaching, running, and beating legs. We used a hanked-on working jib and Brooks took in the single reef on the mainsail. The lake was showing whitecaps and a 1-foot "sea" was consistently present. We had the bulb keel assembly fully down on all points of sail under these fairly boisterous conditions and it quickly became obvious that Wing Ding II had her best time on a reach, where she easily came up to her hull speed of about 5 knots and remained under control.



The cockpit on the Matilda 20 is spacious and uncluttered, at left. The trunk for the lifting keel dictates the layout somewhat, including the offset companionway. For a small boat, the Matilda has a roomy interior, at right, achieved by pushing the cabin sides out to the hull.



The V-berth is quite large, and forwardfacing windows let in a lot of light.

Sailing directly downwind was another matter entirely. Because of her relatively flat-bottomed underwater profile, she demanded a lot of attention to her tiller — and a bit of muscle — to keep her from broaching or rounding up, even with her bulb keel fully deployed. This hull design seemingly does not track well when going downwind even in a modest blow. Extending the small transom skeg would probably bring some improvement.

I had taken along my handheld GPS to measure speeds and was able to get course bearings from the compass built into my binoculars. I asked Brooks to trim as best he could going hard to weather, and we did several long tacks to get average bearings on shoreside reference points directly ahead of the boat and after the boat had come up to speed and settled on each new course. It was a bumpy ride, but not overly wet. However, the tacking angle averaged only about 140 degrees over several tacks. Wing Ding II was going to weather — barely — but not enough to overcome the effects of the current, which runs about 3 knots in this section of the river. Though not very weatherly, she did exhibit good stability and heeled relatively little while working to windward. "Working" is the operative word, as she carries quite a bit of weather helm that could not be fully trimmed out with the sails in use.

The shape of a dinghy

Owners are unanimous in praise of the Matilda 20's platform stability as the waterplane footprint is akin to that of a large dinghy with a relatively flat bottom. Lack of much deadrise also makes for a lower profile when trailering and easier ramp launching and retrieval. The form stability means you'd not be likely to dump your visiting landlubber in the drink when he steps aboard at the dock; the boat is that stiff. A hull with these characteristics performs best when sailed fairly flat — as the heel angle increases, so does weather helm.

It's unusual to see a clipper-style bow in a boat this size, but it is said to make the Matilda comparatively dry in a chop and I found that to be true. Since the cabin trunk extends to the sheerline, there are no sidedecks forward of the cockpit, so going forward for foredeck chores requires some agility. The upside



After raising the mast, Brooks prepares *Wing Ding II*'s mainsail for hoisting.

to that design feature is much increased interior volume and storage possibilities. After all, this is a family-oriented cruising sailboat and the design choices reflect that mindset. It is also a sturdy one. The construction scantlings, and most of the deck hardware, are of a very high standard for a boat of this size.

Chris Holderness, who cruised a Matilda 20 for years in Canada, characterized the hull as having the shape of a giant pumpkin seed. He added that he never felt the boat could not easily and safely handle the challenging conditions his family encountered on occasion when sailing on Lake Huron, and they sailed in some fairly severe weather.

Lifting keel

Personally, I think the feature of the Matilda 20 that stands out most is its retractable bulb keel. What is old always seems to show up new again somewhere, and here is a 40-plusyear-old design happily sailing around with a retractable bulb-keel assembly that at least one well-known presentday builder describes as "innovative" in a current production form.

The Matilda's torpedo-shaped ballast bulb is a casting that weighs around 300 pounds. There are two versions of this casting. In one, the bulb is cast iron and extends both forward and aft of the mild-steel keel plate it bolts onto. In a later one, the bulb is cast lead. This bulb is even with the forward edge of the plate but extends aft of it. The center of gravity of the later version was farther aft, which resulted in more wear and friction on the guides that contain the keel's lifting tackle. Some owners of the newer models have moved the lifting points on their keel plates to restore the balance. There does not seem to be any appreciable difference in sailing performance between the two versions.

The keel is raised and lowered by means of a wire cable and a simple block-and-tackle arrangement inside the top of the enclosed keel trunk. The cable is led to a really nice alloy winch mounted adjacent to the main



The Matilda 20 can be towed by a mid-size passenger vehicle, at left, and, since the boat draws just 9 inches, a tongue extension is not needed when launching. When Brooks wants to make tight maneuvers under power, he steers with both the tiller and the outboard motor, at right.

hatch where it can be easily operated from the cockpit.

Creature comforts

The companionway hatch on the Matilda 20 is offset from the centerline to permit a straight lead aft for the keel-lifting cable. The keel's trunk divides the forward part of the saloon. A fairly large galley area is fitted at the main bulkhead to port of the trunk. The passage forward is to starboard and leads to a quite usable V-berth in the bow. A small compartment opposite the galley to starboard contains the head. As noted, *Wing Ding II* still sports her original 1970s décor and color scheme

Resources

Paul Esterle (better known as Captain Pauley) owns a '70s-vintage Matilda 20 that he has used as the platform for passing along many tricks for caring for and modifying a small trailer-sailer. His creative ideas and methods apply to any trailer-sailor's current ride but are presented in context and in demonstration mode on his own Matilda 20, *Ternabout*: www.captnpauley.com

Everything from the history of Ouyang Boat Works to repair projects can be found at the following websites:

www.alohaowners.com www.matildaowners.com www.sites.google.com/site/sailingwinded pamsmatilda.blogspot.ca matildacenterboard.blogspot.ca www.thevirtualboatyard.com www.pippin-yachts.com with orange indoor/outdoor carpeting and burnt-orange plaid cushions.

Two fixed portlights in the forward face of the cabin trunk and an opening hatch on the foredeck let in a lot of light and air. The pair of deadlights, when viewed from outside, are a hallmark identifier of the Matilda 20, and her two "eyes" seem to invite you to take a closer look.

The original galley configuration had an athwartships counter against the main bulkhead with a small icebox and a sink with an overboard drain at the base of the keel trunk. *Wing Ding II* has a little window above this counter through which food and drink can be passed directly to the occupants of the V-berth.

The toilet on *Wing Ding II* is of the removable variety, but some owners have retrofitted small holding tanks and deck pumpout fittings. The location of the head would seem to be well suited for that, as a flexible waste tank could easily be installed under the V-berth and a vent and discharge line led up to a skin fitting on deck.

On the road

A Matilda 20 is easy to tow and launch as most mid-size passenger vehicles can handle its towing weight of less than 2,500 pounds. A tongue extension is not necessary on the trailer, as almost any ramp will easily accommodate the Matilda's very shallow draft — it's only 9 inches with the keel retracted. The boat on its trailer will also fit in a garage that has about 24 feet of linear space available.

Matildas on the market

A Matilda 20 in good shape with a decent outboard and on a trailer can usually be found in the \$3,000 to \$5,000 range depending on its equipment inventory. A "fixer-upper" might be found for \$1,000 or even less. \varDelta

Rob Hoffman says he's much like his own good old boats . . . aging and in constant need of restoration. He learned to sail from a Cuban instructor in Guantanamo Bay while in the Navy patrolling the Windward Passage during the Cuban missile crisis. He's hooked on restoring and sailing older sailboats.



It says a lot about the Matilda 20 that Brooks has sailed *Wing Ding II* for nearly 40 years.

The Matilda 20...

... and a pair of pocket trailerables

BY ROB MAZZA

J im Luce, a good friend from the Nyack Boat Club, once described cruising in small boats as camping but with the added risk of drowning! That allusion to camping could hardly be more apropos than in reference to the Matilda 20 and the two trailersailers I have chosen for comparison. The Canadian Sailcraft 22 and the Sirius 21 are from the same era but slightly larger.

Cruising in small boats is a British and American sailing tradition dating to the 19th century, as recorded in the writings of John MacGregor, who made extensive cruises in a variety of Rob Roy sailing canoes of his own design, Albert Strange, who popularized canoe yawls and, in the U.S., Charles Kunhardt in his 1890s book, *Small Yachts*. Since the invention of the automobile and the creation of a continental road system, boats have become mobile enough on land to allow sailors to explore even distant cruising grounds with ease.

The Canadian Sailcraft 22 was the first "large" boat built by Paul Tennyson's Canadian Sailcraft company, which became CS Yachts. The Sirius 21 was built by Vandestadt and McGruer in several different configurations over its lifespan. It became a 22 with the addition of a reverse transom, and the centerboard was eventually eliminated in favor of a fixed keel. I can't speak with authority about the trailering exploits of the CS 22, but I know of one family that towed and cruised a Sirius 21 as far afield as the Canadian West Coast, Great Slave Lake in the Canadian Arctic, and the Bras d'Or Lakes in Nova Scotia. Two adults and three young children were on board during the latter cruise. The kids slept below and the adults slept under an awning over the cockpit so, for them anyway, the camping analogy is pretty accurate.



	Matilda 20	CS 22	Sirius 21
LOA	19' 6"	21' 7"	21' 0"
LWL	16' 4"	17' 6"	18' 9"
Beam	7' 11"	8' 0"	7' 11"
Draft (board up)	9"	24"	15½"
Draft (board down)	4' 2"	5' 0"	5' 0"
Displacement	1,500 lb	2,200 lb	2,000 lb
Ballast	300 lb	1,000 lb	575 lb
LOA/LWL	1.19	1.23	1.12
Beam/LWL	0.48	0.46	0.42
Disp./LWL	154	183	135
Bal./Disp.	.20	.50	.29
Sail Area (100%)	177	194	194
SA/Disp.	21.6	18.3	19.5
Capsize Number	2.8	2.5	2.5
Comfort Ratio	8.5	11.4	10.1
Years built	1971-1986	1971-1976	1977-1987
Designer	Bob Tucker	John Butler	Hubert Vandestadt
Builder	Ouyang Boat Works	CS Yachts	Vandestadt and McGruer

Note that all three boats push the maximum 8-foot beam allowable in all states and provinces. This is the same beam restriction, by the way, to which the C&C Mega 30 was designed, but on a substantially longer length. While the Mega ended up as a very narrow boat for its length, these three boats are relatively wide, with the smaller Matilda having a beam of almost half her length. These proportions indicate the large degree that beam, for form stability, and crew hiking weight contribute to righting moment. All three of these boats, being centerboarders (the Matilda actually has a lifting bulb keel much like the Mega), can be said to fall into the large dinghy category, with the Matilda, displacing 1,500 pounds and carrying only 300 pounds of ballast (20 percent), being the most extreme. The CS 22 at 2,200 pounds displacement, of which 1,100 pounds (50 percent) is ballast mounted in a small stub keel that houses the centerboard, is certainly the most stable of the group. The Sirius, displacing 2,000 pounds and carrying 575 pounds of ballast, falls between these two.

In any small boat, one cannot overestimate the positive effect of crew weight on stability, since the possible 500 pounds of movable crew weight is a substantial portion of the total combined weight of boat and crew. One has to assume, however, that crew weight is not included in the published displacement figures, which would actually represent the trailerable weights of these boats. Adding crew weight would have a detrimental effect on the displacement/length and sail area/displacement ratios but would certainly benefit stability.

Each of these boats is lugging around from 300 to 1,100 pounds of fixed ballast, which is nothing but dead weight when on the road. Removable water ballast certainly has its advantages in boats of this type and I hope to address similar-sized boats with water ballast in the future.

In a chase around a racecourse, you would have to favor the CS 22 and the Sirius 21 over the smaller Matilda in heavier air, due primarily to their longer load waterlines and higher displacements and thus stability. The CS 22's greater stability would overcome the longer waterline of the Sirius upwind, while the longer waterline would have the edge on reaches. However, the Matilda's much lighter displacement, higher sail area/displacement ratio, and undoubtedly lower wetted surface would probably give her the edge in lighter wind, especially if the crew could slide forward to get the stern

out of the water. Of the three, though, I'm only familiar with the CS 22 doing any sort of racing. The other two are designed almost exclusively for family daysails and short cruises, for which they are admirably suited.

Because of the constraints on available volume, the design of small boats often presents special challenges that require compromise on headroom, berth length, galley and head arrangements, and storage capacity. The resulting experience, as I said in the beginning, is not unlike camping. \varDelta

Rob Mazza is a Good Old Boat contributing editor who, in his long career with C&C and in other design offices, contributed enormously to the enjoyment of those who sail and own good old boats.





Sail Telltales 101

Low-tech, high-precision aids for sail trim

BY DON LAUNER



A boundary layer exists on both the the windward and leeward sides of a sail. A telltale will "tattle" when the boundary layer separates from the surface of the sail.

Solution of the contrasts with that of the sail. They are sewn on both sides of a sail at strategic points to give a visual indication of the character of the airflow across the sail near the boundary layer, the region between the surface of the sail and the undisturbed wind streaking past.

Air in the boundary layer is slowed down by friction caused by the sail's rough surface, with a rougher fabric producing a thicker boundary layer. When the sail's angle of attack (the angle at which it is set to the wind) is correct, the airflow stays attached to the sail. Well-placed telltales indicate this. Telltales also show you when the airflow has separated from the sail because the angle of attack is too high or too low.

The materials most commonly used for telltales are nylon spinnaker cloth, yarn, and audio-cassette tape. The chances are good that your sailmaker will attach telltales on any new sail you purchase. With older sails, the job is up to you.

Telltale locations

It's normal to have three sets of telltales spaced evenly up the sail so you can monitor the airflow at different points on the sail. Whether on a mainsail or jib, telltales are usually positioned at increments of about one quarter, halfway, and three quarters of the way up the sail.

On the jib, telltales are attached to the sail about 5 to 10 percent of the chord length aft of the luff. (The chord length is the distance from the luff to the leech.) It's a good idea to attach the port and starboard telltales at slightly different heights to make it easier to tell them apart.

On the mainsail, the telltales are normally attached at the midpoint of the sail's chord to be clear of the disturbance created by the mast. There should also be telltales on the leech of the mainsail, and these are usually attached at each batten.



As this sailboat begins to turn into the wind to tack, the mainsail telltales still show a smooth airflow while the jib telltales indicate separated flow.

Interpreting the telltales

Telltales are very useful, but only when sailing closer to the wind than a beam reach. They are of no help when on a broad reach or running.

When a telltale streams straight back toward the leech and close to the sail, it is showing that the airflow is properly attached to the sail and there is no airflow separation. When both the port and starboard telltales are streaming back, the sail is properly trimmed and your speed potential is greatest.

If a telltale begins to flutter and lift away from the sail or to stream forward toward the luff, it indicates separated flow. If a telltale hangs straight down, it indicates there is no airflow and that part of the sail has stalled. The windward telltale standing straight up and the leeward telltale streaming aft indicates you are pinching (either deliberately or accidentally).



When the windward and leeward telltales are both streaming aft, sail trim is optimal and maximum speed should be obtained. When the boat is sailing too close to the wind ("pinching"), the leeward telltale streams aft and the windward telltale stands straight up.

Jib telltales

On a jib, the telltales also help you determine the optimum position for your jibsheet lead block and whether you need to move it forward or aft. You learn this by observing the upper and lower telltales on the windward side of the sail as you slowly come up into the wind. If the lower telltale begins to flutter first, move the lead aft. If the upper telltale flutters first, move the lead forward. When both the upper and lower telltales begin to flutter simultaneously as you come up into the wind, the sheet lead is in the correct position.

When you're sailing close-hauled, the telltales on both the windward and leeward sides of your jib should be streaming aft. If the windward telltale begins to flutter, head off. If the leeward telltale begins to flutter, steer closer to the wind. The rule of thumb is, "Turn away from the fluttering telltale."

Mainsail telltales

When you're sailing close-hauled, the leech telltales on the mainsail should all stream aft. If the top telltale flutters first when you head up into the wind, the traveler is too far to windward. If the bottom telltale flutters first, the leech tension should be increased. If the leeward telltale begins to flutter, sail closer to the wind. If the windward telltale begins to flutter, fall off. To get the more forward telltales to stream, the sail needs to be flattened. Δ

Don Launer, a Good Old Boat contributing editor, built his two-masted schooner, Delphinus, from a bare hull. He has held a USCG captain's license for more than 40 years and has written five books. His 101 articles through November 2011 are available for downloading as a collection from the Good Old Boat download website, www.audioseastories.com. Look under Archive eXtractions.



Simple rules ensure safety and reliability

S ooner or later, if you own your boat any length of time, you will have to deal with replacing or adding a DC electrical circuit. Perhaps you're upgrading an older piece of gear and the wiring is corroded or inadequate. Maybe you're adding new electronics. Or maybe you're replacing a previous owner's amateurish handiwork that is now causing problems. Whatever the reason, it's not difficult to do the job correctly and achieve results that are professional looking, safe, and reliable.

Planning the installation

If you're simply upgrading an older piece of electrical gear, you may only need to replace the old wiring with new. If the amperage requirement of the new gear is no more than the old, if it was wired correctly to begin with, and the circuit it is connected to is not overloaded, it should be fine. Otherwise, you'll need to find a new circuit for your power connection. So how do you go about finding the best place to connect the new wiring?

Illustration 1, at right, shows a simplified DC electrical schematic for

Having a reliable electrical system on board begins with knowing what goes where, at top.

a typical sailboat. It has two house batteries in parallel and one starter battery. The switches allow either battery bank to be disconnected or to be re-routed. For example, if the starter battery died, the engine could be started using the house batteries. The breaker panel has one sub-main breaker and

Adding

several branch breakers, only a few of which are shown in the figure.

Illustration 2, on the facing page, shows several options for connecting your new electrical gear to the house batteries. Option 1, shown in blue, connects the new circuit directly to the battery. This is allowable for certain equipment that should be powered all the time — such as battery chargers, safety equipment (bilge pumps and alarms) — and for electronic equipment that requires continuous power for its memory. As long as there is a fuse or circuit breaker in the circuit and it's placed no more than 7 inches from the battery or the switch, this method will comply with ABYC (American Boat and Yacht Council) standards. (If the conductor is enclosed in a sheath or enclosure, the fuse must be within 72 inches of the battery terminal or within 40 inches of the switch.)

The second option is to connect the new circuit to the battery switch, as shown in orange. Again, this is acceptable as long as the fuse is



a DC electrical circuit



on the branch circuit and make sure the new equipment will not overload the circuit. If the branch circuit has several electrical loads that are only on occasionally or for short periods of time - like horns, electric heads, and freshwater pumps — use Table 1, below, to calculate the existing load or simply add up the amperage requirements of everything connected to the circuit. If the existing load and the amperage requirement of the new circuit are together less than the breaker size, it is probably safe to add the new circuit. In some cases, it might be possible to increase the breaker size, but this is unwise without carefully evaluating the conductor sizes and loads in an existing branch circuit. (More on evaluating conductor sizes on page 20.)

Another option for connecting the new circuit is the green wire shown in Illustration 2. If you have a spare

within 7 inches of the switch, or within 40 inches of the switch if the conductor is contained in a sheath or enclosure. This option is better than the first for most equipment because the circuit can be switched off using the battery switch.

In the third option, the brown wire in the diagram, the new circuit is connected downstream of a circuit breaker. Depending on the type of equipment being connected and the conductor size (more about these later), a fuse may or may not be required.

You can also connect the new circuit to an existing branch circuit, as shown in red. As in the third option, a fuse may or may not be necessary depending on what you are installing. In some cases, this will be the best option. If you are adding a new reading light to the starboard settee, it makes perfect sense to connect it to the "Stb cabin lights" breaker. On the other hand, it would be illogical to connect the wiring for a new chart plotter to that same branch circuit. Before deciding on this option, calculate the existing load

Table 1. Electrical load calculations

A – Continuous loads	Amps	B – Intermittent loads	Amps
Navigation lights		Cigarette lighter	
Bilge blower		Cabin lights	
Bilge pumps		Additional electronic equipment	
Wipers		Searchlight	
Largest radio (transmit mode)		Freshwater pump	
Depth sounder		Toilets	
Radar		Windlass	
Engine electronics		Winches	
Instruments			
Alarm system (standby mode)			
Refrigerator			
		Total of column B	
		10% of total of column B (1)	
Total of column A		Largest single item of column B (2)	
Larger of (1) and (2) in column B			
Total load- Add the two lines above			
The items and amp loads in these	s columns will a	enend on the equinment and circuits on any particul	ar hoat



breaker, the circuit can be wired as a new branch circuit. This would be the best option if you are installing new gear such as an autopilot, refrigeration, or radar. The fuse may not be necessary if the breaker is sized correctly.

Selecting the wire route

Now that you know where both ends of the new wiring will be, the next step is to figure how you'll route the wiring and how much you'll need. Your goal here is to connect the power source to • Avoid passing the conductor any closer to a compass than 24 inches. If the wire has to be routed within 24 inches of a compass, the magnetic field generated by the wires can be nullified if the positive and negative conductors are twisted together into a pair.

Once you have figured out how you will route the new wire, get your tape measure out and measure each section of the wire run. Be generous. I always

Table 2. Maximum allowable voltage drop			
	12-volt system	24-volt system	32-volt system
3% drop	0.36 volt	0.72 volt	0.96 volt
10% drop	1.2 volts	2.4 volts	3.2 volts

the equipment without subjecting the new wire to anything that could damage it. Heed the following guidelines when planning the route for the new wire and you should be in good shape.

- Avoid routing the wire through areas in which water, particularly bilge water, may accumulate.
- Route the conductors as far away as practical from heat sources like heaters and exhaust systems. The minimum recommended clearance is 2 inches from a wet exhaust system and 9 inches from a dry exhaust unless thermal insulation is in place.
- The conductor should be supported every 18 inches. Use cable ties with mounting holes, cable tie mounts with screws, or plastic clamps to secure new wiring. Non-metallic clamps and straps should not be used in areas where a failure would result in a hazard, such as near an engine or over a passageway. If you use metal straps or clamps, make sure the wire is protected from chafing or pinching.
- The wire should be protected from damage from engines, linkages, gears, and so on. Route the wire well clear of such hazards or use conduit or raceways to constrain the wire.

round up and add a couple feet for good measure. It is much better to have a couple of feet left over than to be short by 2 inches. Be sure to measure the return wire path to DC ground as well.

Selecting the wire

Next, determine the minimum gauge (wire size) for the conductor. The first consideration in determining the minimum wire size is how much voltage drop there will be in the circuit. All electrical wire has resistance. Because of this resistance, there will be a voltage drop as current flows through the wire. For some non-critical circuits, like cabin lighting, a 10 percent voltage drop is acceptable, but for all other circuits, a 3 percent voltage drop is the recommended maximum. Table 2 provides the recommended maximum voltage drop, in volts, for 12-volt, 24-volt, and 32-volt systems.

The amount of voltage drop that occurs depends on three factors: the length of the wire, the amount of current flowing, and the resistance of the wire. Knowing this relationship makes it quite simple to determine the minimum wire size. You already measured the wire length. Use the total length, including the return wire, when calculating voltage drop. The soon-tobe-installed electrical device should have a current rating marked on it or in the documentation that came with it. To determine the necessary wire size, follow these steps:

- Calculate the maximum resistance per foot using the formula: Ohms per foot = allowable voltage drop / (current in amps x length of wire in feet).
- Use Table 3 to find the wire size. Select a wire size that has a lower resistance per foot (or per meter) than the calculated resistance.
- Use Tables 3 and 4 to make sure the equipment load does not exceed the maximum allowable current for the wire.

For example, you have a 12-volt system and are adding a circuit for a new chart plotter that draws 3 amps. The round-trip length of the wire is 42 feet. For a voltage drop of no more than 3 percent in the circuit, the maximum resistance per foot would be:

.36 volts/(3 amps x 42 feet) = .0029 ohms/foot.

Looking at Table 3, AWG 14 is the smallest wire size with a resistance less than 0.029 ohms/foot (For wire size selection, see also "Marine Electrical Wire 101," July 2014 – Eds.)

The last column in Table 3 lists the maximum allowable current the various conductor sizes can handle under ideal conditions. This is for quality marine wire with insulation rated for 221° F.

Resources

ABYC Standard E-11, AC and DC Electrical Systems on Boats, July 2012

Brady PWM-PK-8 Wire Marker Books: available from several sources including Amazon

Automotive Thermal Motor Protection: Sensata Technologies

www.sensata.com/klixon/motor-protector-6ap.htm

Thermal Motor Protection, DeVale DV7AM Bimetal Series: www.devale.com/bimetal-thermal-protector/ dv7am-snap-action-bimetallic-protector.html If more than the allowable current is passed through the wire, the wire will heat up enough to melt the insulation, creating a fire hazard. If you use wire with insulation that has a lower temperature rating, the wire cannot handle the same amount of current before the insulation begins to melt. Likewise, if the wire is run through an engine compartment with a higher ambient temperature, or if several current-carrying wires are bundled together, the insulation could melt with a current less than the listed maximum allowable current.

Table 4 lists some multipliers that can be used to estimate the reduction of the maximum allowable current for different situations. These are somewhat conservative values. If more than one situation applies, the multipliers should be combined.

For the chart plotter example, if a duplex cable with AWG 14 wires is run from the distribution panel, through the engine compartment, and on to the new chart plotter, the maximum allowable current would be:

> 35 amps x 0.75 x 0.7 = 18 amps.

Since the chart plotter draws no more than 3 amps, the AWG 14 duplex wire is more than adequate, as long as the circuit breaker or fuse for the circuit is less than 18 amps.

The wire you need for your project, then, is 23 feet of AWG 14 duplex marine wire rated at 221° F. Since it is marine wire, it will be stranded, not solid as is used for household applications. My personal preference is for tinned wire.

Installing the wire

If you are replacing an existing wire, make sure to remove it. It is amateurish and untidy to cut the ends off the old wire and leave it in place. If it was

Wire size (AWG)	Resistance ohms/foot	Resistance ohms/meter	Max amps 105C insulation
4/0	0.000049	0.000161	445
3/0	0.000062	0.000203	385
2/0	0.000078	0.000256	330
1/0	0.000098	0.000322	285
1	0.000124	0.000406	245
2	0.000156	0.000513	210
4	0.000249	0.000815	160
6	0.000395	0.001296	120
8	0.000628	0.002060	80
10	0.000999	0.003276	60
12	0.001620	0.005209	45
14	0.002525	0.008282	35
16	0.004016	0.001317	25
18	0.006385	0.002094	20

Table 3. Resistance and allowablecurrent for AWG wire sizes

routed neatly and properly, you can use it as a messenger by connecting the end of it to the new wire and using the old wire to pull the new one through. To make the messenger connection, either solder the ends together or use a butt connector wrapped in tape.

Avoid connections in the wire. Try to use one continuous wire for the new circuit if possible. If the wire passes through a bulkhead or panel, the hole should be lined to prevent chafing.

Conductor identification

The ABYC standards require that the function of every electrical conductor

Table 4. Derating factors for conductors			
Condition	Derating factor		
Insulation rated at 75°C	0.6		
Insulation rated at 80°C	0.8		
Insulation rated at 90°C	0.85		
Wires routed through engine room	0.75		
2-3 Conductors bundled (duplex wire, e.g.)	0.7		
4-6 Conductors bundled	0.6		

can be identified. You can do this by color coding the wire and/or attaching a label to each end of the wire. I prefer the latter method. I have a booklet of small adhesive-backed labels with four each of the numbers 1 to 90, and I wrap one label to each end of the wire. These labels are available from several sources (see Resources, on page 20). They are oil- and water-resistant, but you can also seal them with clear shrink tubing. The numbers will be visible through the clear shrink tubing and will be impervious to just about anything.

Fuses

In almost every case, there must be a fuse or circuit breaker in place between the

battery and the load to protect the circuit. The only exception is the starter motor, which can be connected directly to the battery. The size of the fuse or circuit breaker is determined by the type of load.

If the new circuit does not have a motor, then the size of the fuse or circuit breaker is limited by the rating of the conductors in the circuit. It should not be any larger than the maximum allowable amperage of the smallest conductor in the circuit. Be sure to use the derated maximum current using Table 4.

For the chart plotter example used

above, the circuit should be protected by a fuse or circuit breaker no larger than 18 amps. Referring to the connection options in Illustration 2 on page 19, Options 1 and 2 (the blue and orange wires) require a fuse or circuit breaker rated at 18 amps or less. The other connection options may not require a fuse or circuit breaker in the added circuit, depending upon the rating of the circuit breakers upstream



of the new circuit. If any of these are rated at 18 amps or less, a new circuit breaker or fuse would not be required.

If the new circuit does have a motor, it must be protected to prevent a fire hazard in the event the motor becomes overloaded or the rotor becomes locked. This might very well happen if a bilge pump impeller becomes jammed with debris, for example. The motor can also overheat if the voltage is low due to either too much voltage drop in the wiring or a low battery.

The ABYC states that "any motor must be provided with protection that will preclude a fire hazard if the circuit is energized for seven hours under any overload condition, including a locked rotor." Most motors intended for a marine application will meet this requirement by including some sort of thermal overload protection that will disconnect the motor if it begins to overheat. Protect the circuit with a fuse or circuit breaker of the recommended size, which is usually indicated on the motor by the manufacturer. If it's not, a fuse size of 150 percent of the running amperage of the motor will usually be adequate to handle the higher startup current of a motor.

If the motor is not thermally protected, you can add a resettable thermal circuit breaker to most motors. (A submersible bilge pump is one exception. I wouldn't consider buying a submersible bilge pump that



Adhesive-backed labels, at left, are very useful for identifying electrical circuits. Crimp-on ring or captive-spade terminals, above, make the best connections as long as a good quality crimping tool is used.

was not already thermally protected.) The thermal circuit breaker should be attached directly to the motor housing so it will trip if the motor overheats. See "Resources" on page 20 for a couple of sources for these devices.

Connections

Your terminal connections should be ring or captive-spade types. Wire nuts and other twist-type connectors should not be used on a boat. Crimp-type connectors are acceptable. If you use crimp terminals, invest in the right tools. At the very least, buy a hand crimping tool made for the purpose. A better solution is to spend a few more dollars on a ratchet-type crimping tool. While there is no guarantee you will get a good crimp every time, it is much more likely with a better tool.

You can solder the wire to a terminal, but if the solder is allowed to wick into the stranded wire beyond the terminal, it will make the wire brittle and more likely to fail due to vibration or wire movement. Given this caveat, soldering is still my preferred technique. I use ring terminals without insulation. I crimp them in place to make a good mechanical connection, then I apply enough solder to ensure a good electrical bond. Finally, I seal them with quality heat-shrink tubing. This is probably overkill, but I rarely have problems with my terminations.

Documentation and testing

The project is not complete until you have documented the new circuit. If you can neatly add a drawing of the new circuit to the existing electrical diagrams, this is the best solution. If not, draw the new circuit on a separate sheet of paper and add it as an addendum to the existing diagrams. There are no universally accepted symbols for representing components such as connectors, circuit breakers, and fuses, so try to be consistent with the symbols used in the existing diagrams. Make sure to include the conductor identification information on the drawing, whether you used numbers or color coding.

Now all that is left to do is to turn the circuit on and make sure it works. If you have done it all correctly, it should last a good many years. \mathcal{A}

David Lynn, a Good Old Boat contributing editor. was an electronics technician in the U.S. Navy for six years before getting his BS and MS in electrical engineering. He and his wife, Marcie, have lived aboard Nine of Cups, their 1986 Liberty 458 cutter, since purchasing her in Kemah, Texas, in 2000. They are currently somewhere in the Indian Ocean in their ever-so-slow world circumnavigation. Check out David's ebook, Nine of Cups Guide to Anchors and Anchoring at AudioSeaStories.com.

A heavy-weather lesson

Two boats, one storm, two outcomes

BY CARL HUNT

In November 1981, my wife, Nancy (known as Boo), and I chartered a Ranger 33 out of Everett, Washington, with our friends Jay and Nancy. *Vela* had one headsail, a hanked-on 130 percent genoa. It had one reef point in the main and an Atomic 4 with a mismatched prop. This trip would have been memorable from many aspects, but the events of the last days of the charter eclipsed all others.

The day before our charter was to end, we sailed *Vela* down Rosario Strait against a strong wind and tide. Rosario Strait flows for 14 miles along the eastern side of the San Juan Islands connecting the Strait of Georgia with the Strait of Juan de Fuca. At times, we took so much water over the dodger we had to bail the cockpit. We would have been wise to hank on a smaller headsail and put another reef in the main, but that wasn't an option.

Boo and Carl

We experienced the kind of sailing that made some smile from the adrenaline and others

choose to never again leave the security of land. Boo periodically forgot to breathe. Both she and Nancy would much rather have been dropped off at an island to await rescue. Jay and I wore the adrenaline smiles of the foolishly adventurous. The two of us enjoyed the dash to Deception Pass at the southern end of Rosario Strait about 6 miles from Anacortes, Washington.

After transiting Deception Pass at slack, we tied up at Cornet Bay, just inside and south of Deception Pass. This is when things got dicey. NOAA weather radio was predicting a southerly gale after midnight and through the next day. The boat was due to be returned the next day, but we would be heading directly into the gale with the wrong sails and the inability to power. We called the owner of our charter boat on the marina phone (this was, of course, before the days of cell phones). He agreed that it would be prudent to wait a day to return *Vela*. He cleverly wanted his boat back.

A gamble

Vela

The gale hit after midnight. *Vela* shook, rattled, and moaned all through the night. The morning brought cold gray clouds and continued gale-force winds. We ignored the wind as much as we could and spent the day hiking. Before

Nancy and Jay



Boo and Nancy



dinner that evening, we gathered around the radio for the NOAA weather report. The wind would be 10 to 15 by morning. However, another gale was expected well after dark.

We decided to make a run for it. We could be in the Everett marina well before dark. We would leave early the next morning to give ourselves plenty of time. We left at first light to head south down Saratoga Passage, an 18-mile shot to Everett that begins a couple miles east of Deception Pass. The wind was from the south, as predicted. We made quick time beating down Saratoga Passage until we passed Hat Island, as the locals call it. Here is where things changed. We didn't make it to Everett that day.

A couple miles from Hat Island, the winds increased a bit, but not enough to be worrisome. Our first clue that something was about to change should have been the first distress call. It wasn't a mayday call in the tradition of mariners. It was more a plea for help. A woman's voice came over the VHF: "Help, Help! Would somebody please help us? We're in a 25-foot sailboat with my husband and two children. We're in Hood Canal. We're being blown into Admiralty Inlet. We can't do anything. We can't control the boat. Would someone

please help us!" The Coast Guard came on. They tried to calm the woman and confirm her position.

In the meantime, we were about a mile and a half from Everett when I looked out over the water. I could see a change. More wind was coming. I asked Jay if we should strike the main and sail in under the jib. He thought it wouldn't be a bad idea. Before we could act, we were hit with a gust of wind like a knockout blow from a champion heavyweight boxer. We were knocked down 90 degrees with the mast in the water. Speech was almost impossible. The noise was like a freight train rumbling overhead and the wind swept the words away as soon as they left our mouths. We let the main and jibsheets fly as the heavy keel struggled to right *Vela*.

When she staggered to her feet, still heeling 35 or 40 degrees, Jay rushed forward to lower the jib. For a while it wasn't clear who was going to win, the jib or Jay. By the time

he returned to the cockpit, Jay was exhausted. It was my turn to strike the main.

When Jay went forward, I had started the engine. Now, Jay tried to bring the bow into the wind, but was unable to do so with the mismatched prop. I fought to pull the main down. Another gust hit. The boat heeled past 45 degrees. My watch cap flew off. I started to reach for it with the hand that was holding tight to the mast. If I saved the cap, I would go into the water. I could die. I clung to the mast.

We were so close we could see the masts in the marina, but we had no option but to turn and run. I asked Boo to find us a place to hide. She scrambled to the chart table and within a few minutes came back with a game plan. We then settled down for a wild ride.

A run for shelter

We found out later that the first gust to hit us exceeded 60 knots. Later gusts reached 75 knots. The wind didn't abate as we shot back up Saratoga Passage. We scudded along in a

They're in trouble. Believe me, they're in trouble.

33-foot sailboat under bare poles at more than 10 or 11 knots. At one point Boo looked up and said, "What's that bird doing out here?"

It wasn't a bird. It was our dinghy. The wind had picked it up and flung it spreader high toward the front of the boat.

Boo had done her job well. The place she chose was in the lee. It also had mooring buoys. We attached *Vela* to one and then began jumping up and down, hugging each other. We had made it.

After we made things as shipshape as we could, we settled down to wait. I was in the cockpit when a sailboat came into view. I said to Boo, "Come up here. Look at this. Those guys are out there sailing with no problems." She looked at me with some scorn and said, "They're in trouble. Believe me, they're in trouble."

I don't know why I argue with her. The sailboat turned in our direction. By the time it was close, I could see Boo was right. Two people were aboard and they were in trouble. tossed a line and then dropped a bombshell. The person on the bow said in a strained voice, "Do you have a VHF radio?" We did. He asked, "Can I use it to call the Coast Guard? We've lost two people overboard." Jay immediately showed him to the VHF.

A tragic ending

We learned their story over the next hour. The two lost overboard were world-class sailors. They had participated in most of the big international sailing events. One of them owned the boat. He had just bought the Olson 30. This was their first sail, a shake-down run.

They had not fully prepared the boat. This was Puget Sound, what could happen? They didn't have an anchor. They didn't have a VHF radio. The reefing system didn't work. The outboard engine didn't work. They didn't have any safety harnesses. They didn't have flares. They didn't have life jackets or a throwable device.

They were sailing in the same area where we had been, around Hat Island. When the gust hit, it knocked them down with the mast in the water. They said the anemometer pegged at 60 knots. The owner and a crewmember fell off the boat in the knockdown. They were last seen swimming toward each



other in heavy seas. The remaining crew could not turn the boat around to pick them up. Nor did they have anything that would float to throw to them. The two in the water had on boots, heavy sweaters, and foul weather gear.

The storm had stretched the Coast Guard's resources to the point that they couldn't dispatch a boat or plane to search for the two people lost overboard. However, a large commercial fishing boat, the *Captain Sunny*, had monitored the distress call. The skipper notified the Coast Guard that he was in the area and would begin a search. We listened to his periodic transmissions. He reported that he was taking green water over the bow onto his wheelhouse. Some years later, I saw the *Captain Sunny* with its 15-foot bow. I had trouble visualizing green water coming over that bow onto the wheelhouse.

The *Captain Sunny* kept up the search until it was pitch dark. Even then, he was reluctant to give up. However, he couldn't see anything. The water temperature was below 50 degrees. Survival for any length of time was not likely.

The bodies of the two lost overboard were never found. We never heard what happened to the family in the small boat in Hood Canal that had made the earlier distress call.

The sea can be a harsh taskmaster. It can make you pay for your mistakes. Sometimes it will take its due with the ultimate payment: a life. Fortunately, most of us don't have to pay dearly for our mistakes very often. In this tale of two ships, one was lucky and the other wasn't.

A lesson in preparedness

We were prepared only slightly better than the Olson 30. Our positions easily could have been switched. We both left the docks placing too much emphasis on the accuracy of the weather forecast at a time of year known for bad weather. Neither boat was prepared to face extremely heavy weather. Neither boat had the safety equipment aboard to deal with a heavy-weather man-overboard situation.

Having a properly prepared boat with the appropriate safety equipment may not have altered the outcome in this case, but it would have decreased the probability of loss of life.

We talked for more than an hour with the crew of the Olson as we waited for a boat to be launched to take them ashore so they could inform the families and friends of the two people lost overboard. They begged us several times to take *Vela* out to search for their friends. We wrenchingly declined each entreaty. In our opinion, *Vela* was unprepared for the task. The risk to the lives of those taking her out was too great. It wasn't an easy decision, but it was the right one under the circumstances.

We counted ourselves lucky because our positions so easily could have been reversed. $\ensuremath{\varDelta}$

Carl Hunt is a semi-retired economist living in Colorado. He has sailed for more than 30 years and cruised his boats from British Columbia to Mexico. He has chartered and cruised other people's boats throughout the eastern United States and the Gulf of Mexico, the Caribbean, the Mediterranean, and other parts of the world.

Departures and arrivals

BY KAREN SULLIVAN

This is the second in Karen Sullivan's series of articles about prepping a boat and sailor for singlehanding. She'll discuss sail changes in the January 2015 issue and anchoring in the March and May 2015 issues.

A ny multitasking you've ever done will pale in comparison with getting under way alone for the first time. But ... if you act nonchalant about it, you will eventually *feel* nonchalant. And expertise will come with practice, so it's a good idea to rehearse the techniques described here at every opportunity until they become second nature.

Departing a slip

Before you leave your slip, look around. Are transom-tilted outboard motors restricting maneuvering room in the fairway? Is anyone else in or approaching the area you'll need for turning the boat? Look for current around pilings and your hull, and glance up at flags and wind indicators. Walk around the boat and notice what wind and current might do to it once you cast off the lines. Which docklines have tension on them? Those are usually the ones to release last.

Say you're in a narrow slip and the wind is coming from astern. Set up a short breast line led from a cleat amid-

ships to keep the boat in place while you release the loose docklines (in the diagram at right, they are the bow lines and forward-led springs). Use care when placing released docklines on deck. If you are sloppy, a loop hanging over the side could pull the whole line into the water to drag alongside and foul your prop.

(If the wind's coming from the direction of the bow, the loose lines will be at the stern, which will make leaving the slip much easier.)

In tight quarters, put the helm amidships so the boat will back straight out. If your boat is small enough, undo the stern line, spring line, and breast line and walk the boat back,

Leaving the dock, stern to wind:

1. Take a moment to assess wind, current, and potential obstacles in the fairway. Remove docklines that are under tension last.

2. Walk the boat back using the rail or a winch as a handhold, but not a stanchion. Leave the stern line around its cleat. After you board the boat, carefully hold or lay the free-end coil in the cockpit, where you can ensure it feeds out smoothly. The dock and cleat must not have any snags or sharp edges to catch your line.

Wind

Karen Sullivan zoit.

3. Engage reverse, back the boat into the fairway, and when the bow is clear of obstacles forward, give a gentle snub to the stern line. The bow should turn to windward. Gather in the stern line.

rolling the hull on the fenders. You'll need some momentum before stepping aboard, turning the helm, and engaging reverse gear. Grab points include shrouds, winches, or the rail, but not stanchions, which aren't meant for such loads. Just before you climb aboard, give the bow or stern a push or tug to start the boat turning in the direction you want to go.

One trick for avoiding which-way-do-I-steer confusion when going astern is to stand in front of the wheel or tiller and face aft. Then steer the boat like you would a car moving forward. If it's a tiller, simply point the *rudder* in the direction you want to go. It's a good idea to find out how well your boat backs up; some do it easily and others don't.

A solo sailor uses a basketful of tricks



Karen Sullivan zo14

Approaching the dock, downwind:

1. With fenders and docklines rigged and wind and current assessed, approach the dock. Slow the boat, if vou wish, with a short burst of reverse engine.



3. Stop the boat with the spring line. Secure the stern line to the aft dock cleat, then move the spring to amidships to keep the boat in place while you organize the rest of the docklines.

it carefully. As you go astern, you can let the carefully coiled loose end pay freely out of your hand or from the cockpit. Once you're clear of obstacles, give the line a gentle tug to turn the bow upwind. When you are ready to gather in the line, don't throw the loose-end coil into the water as it could tangle. Instead, let it feed off the boat, and keep the engine in neutral until the line is aboard. The biggest challenge I have had in doing this stern-spring trick is stopping well-meaning bystanders on the dock from grabbing the slipping line as they try to "help."

Slipping a dockline works best on smooth surfaces that don't snag rope fibers, so if your dock cleats have galvanized seams with sharp edges, consider sanding them off. If a line snags on the dock, release it quickly from the boat end. Nylon line will sink and await your return. Polypropylene, never good material for docklines anyway, will float and put other boats at risk.

It's useful to have a strong cleat placed amidships, just abaft the boat's beamiest point. Using shrouds, stanchions, or rail fittings as mid-boat attachment points for docklines is asking for stress on the fittings that they were not designed for as well as chafe on the lines. When I'm maneu-

Doubling a spring line

Most of the time, this is all that's needed for undocking. On some boats, backing into the wind makes turning the bow upwind more difficult, and occasionally a strong wind astern, or close proximity to obstacles, makes a stern spring line useful. If you want the bow to swing to port, you'll need to gently pull the stern to starboard with your stern spring. You need a stern line at least twice the length of your boat, and it should be supple, not stiff with salt, because it must slide easily.

Make this long line fast on your stern cleat and loop it around the dock cleat. Bring the end back aboard and coil vering solo, I have found I'm at a disadvantage on a boat that doesn't have strong midships cleats.

Returning to a slip

It's a good idea to find an empty dock and practice your approaches and departures in different conditions. Docking upwind or up-current is preferred because these "brakes" can help you control the boat better.

It's time to come back to your slip, but let's say the wind is again going to make it more difficult by coming from astern. You've got your fenders down and the other docklines properly rigged and easy to reach. You've practiced approaches

⁴⁴ The solo sailor's best friend when docking is a spring line attached amidships and led back to the cockpit.⁷⁷

and turns and other moves that show you how your boat behaves. You've looked over the tops of other boats to see if anyone's maneuvering in your fairway. You know the state of the tide and the probable current direction and velocity at your slip. Now it's a matter of coming in with just enough speed for turning.

Tune out all distractions as you concentrate on lining up the boat with the slip. Proceed slowly, using a small burst of reverse as you close with the dock to take off most of the boat's way.

The solo sailor's best friend when docking is a spring line attached amidships and led back to the cockpit. Step (never leap!) ashore with your spring line in hand. Take one wrap around the dock cleat that will end up nearest your boat's stern and let it slip, keeping enough pressure on it to slow the boat as it closes with the dock. You can do this with a stern line too, but the spring will stop you faster if the dock space is short. Snub the spring to stop the boat, then grab the stern line and tie it to that aftmost dock cleat. Move the springline to amidships, making it a temporary short breast line to keep the boat from drifting out, and walk forward to secure the bow. You've done it! At this point you can drop the nonchalance and allow yourself a grin. Δ

Karen Sullivan sailed with her partner, Jim Heumann, from Port Townsend, Washington, to New Zealand in their Dana 24 from 2011 to 2013. Before that, she cruised in Alaska's Prince William Sound and soloed down the Inside Passage in her previous Dana. A long time ago she sailed between Maine and the Caribbean in various boats. She is at work on a book about their Pacific crossing. Read more at: http://karenandjimsexcellentadventure.blogspot.com.







with sailing

The seduction was short, sweet, and complete

BY LISA FROST

henever my husband, Kevin, suggested sailing together on his parents' boat, my response was always "no." I had spent many days fishing with my dad and my former spouse on the Menominee River and the Bay of Green Bay. Sailing didn't appeal to me. "I don't want to go sailing. I spent enough time on the water and I have no interest." Disappointed, Kevin usually went without me. On Sundays he'd return with a sailor's tan and a hint of "pirate speak" in his tales of sailing on Lake Petenwell in central Wisconsin.

Six years have gone by. It's spring as I write this and we want nothing more than for the bay to thaw after a particularly long and dreary winter so we can launch our good old boat. She's a beautiful 1973 Tartan 30 we purchased in 2009. We love her. Her name is *Escape*.

A race changed my mind. Over Labor Day weekend in 2008, my husband managed to get me to join him at his parents' home for the three-day weekend. Included in the itinerary was a sailboat race at the local yacht club. Kevin had crewed for this race several times in the past, but this was my first time ... my first time on a sailboat and certainly my first

time racing. We were on my in-laws' O'Day 23. Linda Lark was her name. Winning races was her game.

Starting line nerves

They told me the wind was perfect for racing that day: 12 to 15 knots out of the southwest. Kevin hoisted the mainsail and hanked on the jib. The participating boats gathered at the start. At times, we came so close to other boats I wanted to scream. Since this race, I have raced on several boats, including *Escape*, and have learned that the start is always the most harrowing part.

The whole non-choreographed start put me on edge. Neither my in-laws, Curt and Linda, nor Kevin were unnerved. They were having a good time! With a fairly decent start behind us, I relaxed a bit.

"Ready to come about!" Curt hollered to his crew. "Ready on port," Linda hailed in response, gripping the sheet as she spoke.

"Ready on starboard!" Kevin chimed in.

With one smooth move, Curt steered Linda Lark's bow through the wind. Sheets and sails flailed briefly, and then we



Lisa became smitten with sailing aboard Linda Lark, an O'Day 23, during the 2008 Dam Race, at left. The crew was Lisa and her husband, Kevin, standing at left, and Curt and Linda Frost, Kevin's parents. Kevin and Lisa, at right, now sail their own boat, Escape, a Tartan 30.



were on starboard tack and swiftly heading for the island we had to round before heading to the finish. *Linda Lark* had a pretty good heel going; I braced myself against the cockpit seating on the opposite side.

"You're dealing with the heel pretty well for a first-time sailor," Curt observed. "Sometimes that unnerves someone who's never been sailing."

I smiled and said, "I love it! I can't believe we're getting this kind of speed from just the wind." I giggled as water splashed over the bow and into my face.

"Now we're sailing!" Kevin exclaimed as *Linda Lark*'s beautiful white bow plowed through the waves. Never in my life had I ever felt so peaceful, terrified, refreshed, and relaxed at the same time.

On the foredeck, Kevin and I dangled our feet in the water as we headed to the finish line. As we tacked, I turned to Kevin and said, "I want a sailboat." He nearly fell out of the boat. Thankfully, he did not, as that would have disqualified us from the race.

We finished third in our division. The whole motley crew accepted the award from the yacht club commodore. I was

Escape placed second in the 2013 M&M Yacht Club 100-Miler race with (clockwise from top left) Lisa, Rick Georgeson, Curt, and Kevin.

ecstatic. I turned to Curt when we returned to our seats and said, "Next year, we'll take first." He chuckled. "I'm glad you had fun."

There are times when emotions can hit like a freight train. Memories of my father, who died in 2004, flooded me at that moment. As a child, I was his fishing partner. We fished nearly every summer evening on the Menominee River. Until that moment at the yacht club, I had not realized how much I missed being on the water. I believe Dad's spirit was with me during the race and is there with me every day when I am on my own boat. I can picture him in *Escape*'s cockpit, one hand on the tiller and the other on the starboard rail, thoroughly enjoying the moment.

Curt is not my biological father, but he is my "dad." No one can replace my true father, but Curt is a close second. I am blessed to have such awesome in-laws. I am grateful they introduced me to the challenging sport of sailing.

Anticipation

It's mid-April as I write this. We're on the tail end of a winter that refuses to die. The ground was white again this morning when I peeked outside. But from my window, I can see the Menominee River in the distance. The Bay of Green Bay is frozen solid but in a month Kevin and I will be down at the boatyard looking over every inch of *Escape*. She sits in her cradle with her proud bow facing the water. We believe *Escape* has a soul and she's longing to be back in the water, just as we are.

The days are growing longer and slowly getting warmer. We're anxious to hoist *Escape*'s mainsail and unfurl her jib, anxious to feel the wind on our faces. *Escape* is anxious too. When you own a sailboat, you just know. You can feel it.



Once she discovered sailing, Lisa, here at the helm of *Escape*, found it brought back fond memories of time spent on the water with her father.

I found a quote that summarizes perfectly how I feel about sailing. It's from *Under the Jolly Roger: Being an Account of the Further Nautical Adventures of Jacky Faber* by L.A. Meyer:

"We clear the harbor and the wind catches her sails and my beautiful ship leans over ever so gracefully, and her elegant bow cuts cleanly into the increasing chop of the waves. I take a deep breath and my chest expands and my heart starts thumping so strongly I fear the others might see it beat through the cloth of my jacket. I face the wind and my lips peel back from my teeth in a grin of pure joy."

Some of my most terrifying moments have been on a sailboat. But some of my most satisfying moments have also been on a sailboat. I look forward to many more, both terrifying and satisfying. Those moments build our character and inner strength. Δ



Lisa Frost is a freelance writer in Wisconsin. She and her husband, Kevin, sail on the Bay of Green Bay and make frequent bay crossings to Door County, Wisconsin, during the summer. Escape, their good old boat, is a 1973 Tartan 30.



A Cal 34's second life

Her past glory inspired a restoration

BY MARY KINNUNEN

The Cal 34 Vagus was once a star. That was in the mid-1970s to the mid-'90s, when Lake Michigan's Bay of Green Bay was busy with races that Vagus won with seamanship and style. Then, in the late '90s, she was donated to the Sea Scouts who eventually put her on the market. Through sun and snow, she sat on her cradle, uncovered, until 2010, when Joe Shepro paid her a visit. "I knew her to be a great performer and I loved her traditional lines," he says, speaking from the perspective of someone who'd sailed against her.

Joe learned to sail in the mid-'70s when stationed at the Coast Guard's Loran station in South Caicos. There, he soaked up the Bahamas sun while restoring a Haitian sloop that had run aground. After returning stateside, he got out of sailing and worked for years at cabinetmaking, including a stint doing interior trim at Gulfstar Yachts in Florida. By the early '90s, Joe was back in Michigan and back on the bay, where he match-raced his yellow 5.5-Meter, *Chiquita*, against his teenage son Joey, who sailed on a friend's 5.5-Meter until purchasing his own 5.5-Meter, *Flash*.

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Joe was racing a Catalina 25 in 2010 and initially thought that the on-the-hard Cal 34 hull #152 wasn't worth fixing up. "That was until my third visit..." he says with a competitor's gleam in his eye. "It has a lead keel and the hull had been stripped and barrier-coated to a very nice racing finish."

Designed by Bill Lapworth and produced by Jensen Marine from 1968 to 1975, the Cal 34 has a 33-foot 3-inch overall length, a 10-foot beam, a fin keel that draws 5 feet, and it displaces 9,500 pounds. It has aft, midship, and forward berths, a 30-horsepower Atomic 4, and is steered with a tiller.

Memories and hope

While specifications are informative, Joe's earlier connection to the Cal 34 was a strong pull. He had always admired it, so he felt that, at \$5,000, it was a very good deal despite the dirty standing water, neglect, and unknowns. Did he have it surveyed? "No. I had hope," he says, "and the main and genoa were relatively unused."

Joe built a temporary structure alongside his house. To get the Cal 34 there from the boatyard, he used the trailer he and Joey had once built with the thought that, one day, they'd find a hurricane-damaged boat to restore. About the outset of the restoration, Joe says, "I had no plan, but I wanted a seaworthy boat that would sail well and look great."

With winter settling in on the Upper Peninsula of Michigan, Joe sat in the cockpit and contemplated how to achieve those admirable goals. Key issues were the discovery of rotten spreaders, a forestay worn to half its diameter, and soft plywood deck core.

Joe's woodworking skills proved valuable for the relatively simple task of making new spreaders, for which he chose white oak. The soft core and delamination was more involved and

Underdog races frequently on Michigan's Bay of Green Bay, at top. Here, she's flying a spinnaker that dates to her days as Vagus.

Joe, a fan of the Underdog cartoon series, knew the Cal 34 could once again be top dog.





required a lot more than "just" repairing the deck core. Other related issues had to be dealt with also as the shrouds had been tightened to the point of pulling the chainplates through the fiberglass. He removed the galley and took out two big aluminum plates that had been added to beef up the hull, then he replaced the rotten deck core.

He stripped loose paint in the cabin, sanded tired varnish, and tossed out old electronics. He stored removable furniture parts in the basement where he sanded them. But he varnished those pieces in the dining room.

As well as turning a blind eye to the workshop in the dining room, Joe's wife, Kathy, pitched in by crawling into tight spaces to help install oversize stanchion backing plates, painting the bilge, sewing new curtains, fashioning new lampshades, and restitching the genoa that had been cut down to fit the new roller furler.

A growing commitment

Once the boat was looking rough and bare, the realization that hits many good old boaters struck Joe: "This was a bigger project than expected." Eventually, however, the re-varnished woodwork was reinstalled in the





galley, the icebox was converted to dry storage, and the tabletop and 4-foot countertop were replaced. The alcohol stove had been removed sometime in the past. This left space for a fridge. Joe cooks aboard with a two-burner propane stove and a microwave. When Joe acquired *Underdog*, her interior was shabby, above left, so he applied his woodworking skills, above right. The result was a galley with beautifully refinished trim and a new countertop, at left. The original upholstery works well with the new laminate tabletop, lower left.

Then there was the head with a questionable macerator and toilet. Joe's solution was to replace the dubious fixture with the Porta Potti from his van.

Topsides, Joe removed all the hardware and windows prior to repainting the deck. He updated most of the deck hardware but the original genoa and spinnaker winches remain.

"Yeah," Joe says, "self-tailing is pretty cool, but I'll stick with the bronze — and someday may polish them up."

New hardware includes rope clutches, cam cleats, and blocks and the re-sized genoa now has a luff tape to work with the new Seldén Furlex furler. Other

improvements are the addition of a Raymarine A70 chart plotter and tiller pilot, a depth finder, a radio, and two compasses.

Once the boat was repainted, it was time to add the name. Joe, a fan of the Underdog cartoon series, knew


Joe fitted rope clutches and led the sail control lines back to the cockpit, at left, to make singlehanded sailing easier, but he kept the original winches. He made secure storage for dinnerware, center, and made more galley counter area by fitting a double sink in the head vanity, at right.

the Cal 34 could once again be top dog. "The name seemed to fit the boat perfectly," he says. Voilà! *Underdog* it would be. He went on to name the dinghy *Sweet Polly Purebred*.

With the boat once again afloat and in fine form, Joe says, "This Cal 34 was a racer/cruiser, but now she's more of a cruiser." Joe's son Nathan, a Ford mechanic, keeps the Atomic 4 running smoothly. On battery power, the refrigerator keeps food and drink cold for two to three days. That's about the limit of the Porta Potti as well, which Joe says he has emptied in some tony yacht clubs up and down Lake Michigan's shore.

A presence on the lake

Sailed by a crew of family and friends, these days *Underdog* rounds the buoys



in local races and has ventured south to Milwaukee, Wisconsin, to take part in the Queen's Cup Race.

Describing *Underdog*'s performance under sail, Joe calls her "an incredible sailing boat — her meat and potatoes is reaching, and she handles 20-knot air beautifully." This was proven on a recent 55-nautical-mile night race north to Fayette when, in 15- to 20-knot winds under a full main and genoa, *Underdog* had an average speed of 6.6 knots and topped out at 8 knots.

From her curtains to her cam cleats, Underdog impresses onboard guests with Joe and Kathy's work. The layout also gets positive reactions as the cockpit is roomy and the saloon feels airy rather than cramped.

As for Joe's hope of rescuing a boat someday, he now skippers a boat he



The dining room became a workshop where Joe varnished cabinets and Kathy sewed boat curtains (and sails!), at left. Joe and Kathy relax in *Underdog's* spacious cockpit, at right.

brought back: a seaworthy Cal 34 that sails well and looks great. Along with the \$5,000 purchase price, he added another \$5,000 of electronics, hardware, and materials.

Joe didn't tally the labor hours he and Kathy put in during those five months *Underdog* was in the shed, but he's not concerned with that. When presented with the question, "What was the most surprising thing you learned about refitting a boat?" Joe replies, "How much I enjoyed it."

Remembrance

Sailing is bittersweet for Joe, however. In 1995, 17-year-old Joey, the avid racer who loved being on the water, sailed his last season before dying of an aggressive form of cancer. Now, the Marinette-Menominee (M&M) Yacht Club sponsors the Joey Shepro Double Handed Memorial Race, an annual event that raises money for the Make-A-Wish Foundation.

Joey has another connection to the water: even though his 5.5-Meter sails no more, Joe used the mahogany deadwood from *Flash*'s keel to make *Underdog*'s tiller. In his home workshop, Joe planed, sanded, and finished it into a beautiful new form. \varDelta

Mary Kinnunen is a writer and sailor who lives in Wisconsin.

Exterior improvements

Surface-mounted deadlights

... replace irreplaceable windows

BY BILL SANDIFER

When it was time to replace the deadlights in the deckhouse on my 1978 Eastward Ho 31, I ran into a problem. Replace them with . . . what? The originals had been leaking for more than a year no matter what I did. I tried resetting and re-caulking them. I tried caulking around the exterior only. I considered replacing them with new ones, but these windows were no longer available and my budget would not stretch to aluminum replacements, which would have to be custom-made.

I consulted with a shipyard where I normally have the bottom painted. They showed me several boats with surfacemounted replacement deadlights made of polycarbonate. (Lexan is the best-known brand.) They looked professionally done and quite attractive. I asked the price for making and installing just two. After picking myself up off the ground, I decided the yard price was also outside my budget. However, replacing the windows in this manner looked like a project I could take on myself. All I had to do was find a source of polycarbonate, get it cut to the correct size, and install it.

First, a template

Step one was to make a template of the existing window, then enlarge it, to allow for it to be surface mounted, while making the corner radii proportional to those of the cutout in the cabin side. This was the easy part of the project.

Once I had the template, I found a glass retailer who stocked ¼-inch polycarbonate and was willing to cut, bevel, and drill it to match the template. I was pleasantly surprised by the quote this time — just \$75 for each port.

I took my finished windows back to the boat and checked their fit against the holes in the deckhouse sides. There was a ½-inch gap between the outer shell and the inner liner that would have to be filled. I used waterproof caulking (from our local big-box store) in an almond color to match the liner.





Next came the hard part. The replacement polycarbonate sheet had to be correctly aligned with the hole, but overlapping it. I chose the fastener hole in the center of the aft edge of the new window and drilled a hole in the cabin side to match it. By passing a screw through these holes, I was able to pivot the window up and down to find its correct position. This was more a question of visual alignment than measurement as the boat has so many curves and angles. Once I was happy with the position of the new window, I drilled the remaining mounting holes.

When I was looking for the polycarbonate, I became aware of the need to use a compatible sealant to form a waterproof

After replacing his deadlights, Bill has a clear view of his marina neighbors, upper photo, and no more leaks. The polycarbonate deadlights are mounted directly on the cabin sides, lower photo. gasket between the polycarbonate window and the fiberglass deckhouse. This is easier said than done. I read most of the labels and explored the Internet to find the answer.

I was not looking for an adhesive, as the windows would be held in place mechanically by bolts. All I wanted was a material capable of forming a watertight seal. I thought pure silicone would do and, after consulting with the manufacturer, was proved correct. The silicone will not act as an adhesive but it will stick to the fiberglass and the polycarbonate sufficiently to form a waterproof joint. The first heavy rain proved the port watertight and a full success.

The total cost of each deckhouse window was about \$100 including polycarbonate, sealant, and fasteners. This was well within my budget for a job well done. Δ



Pointers for working with plastics

by Jerry Powlas

When you replace fixed ports, your project is more likely to succeed if you bear in mind a couple of fundamental considerations. Thermal expansion is a fact of life. Materials expand when they get hot and shrink when they get cold, but not all materials expand and contract at the same rate. Acrylic and polycarbonate expand and contract at about three times the rate of fiberglassreinforced polyester resin. This is the chief reason that ports leak. The different rates of expansion and contraction put high shear stresses on the seal and it breaks. They also put stress on and around the fasteners.

You can mitigate this somewhat by using very large holes for your mounting fasteners. That will keep the ports from cracking at the holes. You can use some form of silicone rubber for the sealant, but this choice does not, as Bill states, have much adhesive strength. It is probably best to use mechanical fasteners if you use silicone rubber for the sealant.





I prefer LifeSeal, a product made from a mixture of silicone rubber and polyurethane. This adhesive works well with polycarbonate and fiberglass and is so strong that no other fasteners are required. If you choose to mount your ports using this sealant and without using fasteners, proceed as follows:

1. Work out some jigging to hold the ports in place until the sealant cures. This might involve using some fasteners that you will remove afterward and fill their holes.

2. Using a ticket punch, punch out small discs from a polyurethane bottle, such as those used to hold vinegar or windshield-washing fluid. You are looking to create discs that are .050 inch thick or greater. Mount these discs at intervals in the middle of the strip around the edge of the glazing where the sealant will go. The idea is to keep the thickness of the sealant from being less than that of the punchings. Use superglue to mount the punchings.

3. Jig the glazing in place as necessary. Use syringes with the needles removed to insert the sealant into the gap between the glazing and the boat. Attach plastic soda straws to the ends of the syringes with hot-melt glue. Squeeze the ends of the straws so they will fit under the plastic and into the gap. You may want to use masking tape to make cleanup easy.

4. When the sealant sets up, your glazing will be attached without relying on fasteners. The portlights are literally glued to the boat.

5. Several factors affect the choice between polycarbonate (like Lexan) and acrylic (like Plexiglas). Acrylic resists scratching and is less costly, but polycarbonate works well with ordinary woodworking tools and can be cut and drilled without cracking. Acrylic often cracks during cutting and drilling, thus polycarbonate is my preference.



The old deadlight, far left, had been leaking for a while and Bill could not obtain an exact replacement. He made a pattern, above, for a surface-mounted polycarbonate deadlight. Here, the pattern, with notes for the glass-cutting shop, is taped to the inside of the cabin.

Bill Sandifer, a Good Old Boat contributing editor, has been involved with boats and the water since the age of 12 when he "borrowed" anchored rowboats for "rides" while never leaving the mooring. (He just paddled around with a "found oar.") Since that time, he has been a launch operator, sailing instructor, founder of a SCUBA company, and owner of a boatbuilding company. He currently cruises the U.S. Gulf Coast with his family in an Eldridge McInnisdesigned 31-foot sloop.

Resources

A popular article about surface-mounted ports appeared in the March 2006 issue of *Good Old Boat*.

Find coefficients of thermal expansion for a variety of materials at: www.engineeringtoolbox.com/linear-expansion-coefficients-d_95.html





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A top-down core replacement

BY MATT BOWSER

Rebuilding a deck part 1



In this, the first of two parts, Matt Bowser describes three ways to repair a delaminated deck. He then relates how he settled upon the one he would use and how he proceeded to attack his boat with destructive tools (carefully) and remove the fiberglass skin and the soggy core beneath.

hen I first saw *Magic*, a 1962 Alberg 35 (hull #16), it was love at first sight. I was hopelessly smitten with her classic lines and thought she was the perfect boat for me in almost every way. She was just the right size for coastal cruising with a growing family — we had one child in tow and another on the way. The owner had replaced the Atomic 4 with a new diesel and had done many upgrades over the years to keep her looking good. I bought her in 2001.

Sure, a bunch of soft-deck issues turned up when I had her surveyed, but I didn't let that cloud my judgment. How bad could they be? I studiously stepped over the soft spots the surveyor had pointed out, but I kept the varnish looking good. Each year I owned her it got a little bit harder to step over the soft spots, but I was in love. The boat was beautiful and I have a long stride. My wife had begun calling her "The Mistress."

Years of ignoring the warning signs came to a head over the winter of 2007-08 when I was unable to cover the boat because of work and family commitments. Water in the already soft core froze, causing most of the top skin of the foredeck to completely delaminate. Even with my broad stride, I couldn't ignore the problem any longer. I didn't launch her during the summer of 2008 and moved her to a yard with cheap monthly storage while I figured out what to do.

A friend in the boat restoration business said re-coring the decks would cost more than the boat was worth. Depending on what he found, it could cost in the tens of thousands of dollars. I didn't have to consult my checkbook to rule out that option, so *Magic* languished that summer.

Magic's decks were a soggy mess that couldn't be ignored any longer, so into the shed she went, top left. Rebuilding them was arduous, but amply rewarded, above.

At 6 feet 5 inches and a bit claustrophobic, I don't wiggle into anything tight very well.

The yard where I stored her was a depressing place where many old boats sat neglected and some were destined for the scrapheap. I couldn't allow my boat to meet that fate, but I couldn't afford a professional job. I would have to re-core the decks myself.

Choosing a path

I spent countless hours researching different re-core methods and found three main approaches. Before deciding which method is appropriate in any individual case, it's necessary to determine the extent of the delaminated area. This is done by sounding the deck with a mallet. In theory, the sound made when the mallet strikes solid deck differs from that made over voids. I suspect this takes a practiced ear. I didn't need a mallet to tell me that most of the core in my deck was in a bad state and needed to be fixed. The good news was that everything I read indicated

that no specialized tools were needed beyond what can be found in an average handy homeowner's toolbox, and no specialized skills, either. It just takes patience, a willingness to ruin good clothes, hundreds of disposable gloves, and caveman determination.

Drill and fill

The first and easiest method (relatively speaking) involves drilling a patchwork of holes into the core and injecting acetone into the holes to help dry the core. Whether this actually dries the core completely is the subject of some debate, but it certainly can't hurt. Once all the acetone has evaporated and the core is dry, inject penetrating epoxy into the holes until it has filled up all the voids and has started to run out of the other holes). Let it cure, fill the drill holes with fairing compound, and repaint. This method may be viable for small areas where the core still retains its compressive strength, but the delaminated areas on my deck were too big and squishy for this to be effective.

Remove and replace the bottom skin

Another method I found, but quickly dismissed, was to remove the bottom skin of the deck from underneath

(see Good Old Boat, March 2004.) This could be an attractive option if the top skin of the deck is in good shape as it's not necessary to refinish the non-skid, but there are many challenges to this approach. First, any headliner that may be in place must be removed. My headliner is a molded affair that would have to be cut out and replaced. Strike one. It's also necessary to wiggle into some pretty tight areas and bulkheads may have to be removed to provide proper access. At 6 feet 5 inches and a bit claustrophobic, I don't wiggle into anything tight very well. Strike two. Finally, I am a firm believer in gravity and almost always want it working for me. The thought of trying to hold a 4-foot piece of glass in place with epoxy dripping all over me while it cures just doesn't appeal to me. Strike three.

Remove and replace the top skin

The method I chose was to cut off the top skin, replace the bad core, and laminate a new skin on top. This is probably the most widely used of all the techniques, although many people have had success re-bonding the old top skin in place once the core has been replaced. Using the old top skin is



Matt installed bracing to support the underside of the deck, at left, so it would retain its shape after the top laminate and deck core were removed. Taking a circular saw to the deck is not for the faint of heart, at right, but it's a necessary evil when replacing the core.

Exterior improvements Rebuilding a deck, part 1



cheaper because less epoxy and glass fabric is used, but the old skins need a significant amount of prep work and I've read accounts of void problems arising when the skins are bonded in place.

A shed and a mindset

To get started, I had the boat moved to my property and built a Stimson bow-roof shed during the fall of 2009 (see "Do-It-Yourself Boat Barn," September 2012). Almost two years had passed since I had come to terms with the fact that I needed to re-core the decks, but I never gave up. I found that if I started thinking too much about all the tasks to be completed before the boat was re-launched, I would get overwhelmed. But once I got it into my head that there was no rush and focused on

just the task at hand, I was able to proceed. With that in mind, I got to work ... slowly. I mentally divided up the project into three simple phases: destruction, construction, and finishing.

The destruction began over the winter of 2009 with the removal of all the deck hardware. There's nothing fun about this task. Some days I managed to free up only five or six bolts before muscle spasms or frostbite set in (sometimes both). Central New Hampshire winters are better suited for skiing than removing cold steel hardware from boats.



Over the course of a month, I slowly removed all the stanchions, cleats, and other fittings. Some came off easily; others required a nut splitter and half a can of Liquid Wrench. Most of the nuts and bolts were stainless steel or silicon bronze, but some washers or backing plates were steel and had turned into masses of rust that had to be chipped or cut away. Needless to say, I was pretty happy when I pulled off the last fitting.

With that finished, I needed to install bracing on the undersides of the unsupported areas of the deck and cabintop in preparation for the re-core. This was important because the bottom skin can be quite thin (mine was about ½ inch) and won't support much weight once the top skin and old core are cut out. The core has to be weighted down to Some of the existing core on the cabintop was still in very good shape, far left, so Matt left it in place and saved himself some work. As for the rotten core, it peeled up fairly easily and quickly piled up, near left.

bond effectively, and if the underside is not supported while the core is installed and bonded, depressions can form in the deck that will have to be corrected later on.

The supports don't need to be fancy. I used $2 \ge 3$ and $1 \ge 3$ strapping cobbled together with sheetrock screws and jammed into place in the cabin. How much or how little support is required is really a matter of common sense.

The first cut

Once I had the bracing in place and everything ready to go, I faced a big psychological challenge. Nothing, up until that point, had involved cutting up pieces of boat or real destruction. Now, I feared I would screw up so badly I would have to throw the boat

away. When I finally came to terms with what I had to do, I jumped in head first.

The first cut was the hardest. I had selected my trusty 6½-inch cordless circular saw as the weapon of choice and set to work on the aft section of the cabintop. My hands were shaking as I pulled the trigger. Setting a circular saw loose on a boat is not for the faint of heart. Fortunately, it gets easier, and I eventually found that, even though the 6½-inch saw was adequate, my 15-amp Bosch 7¹/₄-inch saw was perfect for long open-area runs like the sidedecks and foredeck. I set



Matt built a Stimson shed in his yard so he could work through winter.



With the top skin removed, the old core needed to be extracted from beneath the edges where Matt had cut the existing deck, at left. He then had to grind bevels on the old glass to receive the new, at right. With some on-the-job training, he was able to grind accurate bevels everywhere.

the depth of cut to about ¼ inch so the saw penetrated the top skin and into the core, but no deeper. The bottom skin needed to remain intact.

I started on the aft part of the cabintop and made a series of parallel cuts a little over a foot apart running fore and aft. I started these cuts about 2 inches inboard of the edge of the cabintop to leave a flange so I could grind tapers later on. This is an important detail. Because the top skin needs to be tied back into the existing deak the context.

deck, the contact area at this interface should be made the maximum possible.

Cutting the fiberglass into reasonably small (1 by 4 foot) pieces made it more manageable, both when pulling the skin off and ultimately for disposing of it. For the corners and tight areas where the circular saws wouldn't fit, I used a Dremel Multimax oscillating cutter. The Dremel was slow and I went through quite a few blades (I should have used carbide-tipped blades), but was essential for getting at the areas the circular saws couldn't reach.

Once the initial cuts were done and I had further reduced the value of my boat, I took a hammer and an assortment of pry bars and set to work pulling off the cut skin. In most cases, the deck was so badly delaminated I was able to pull off the pieces of top skin with little effort, but a few spots required a pry bar and some well-placed words. Overall, I removed about half of the core in the cabintop but left some remaining good core on the port side. I used the oscillating cutter to remove core material anywhere that handrails and other through-deck fittings would be located.

Core decisions

Most of the core was, as I expected, a mushy brown stew, but the type of core was a surprise. I expected to see end-grain balsa blocks under the

I took a hammer and an assortment of pry bars and set to work

> skin, but instead found balsa planks about 2 by 24 inches. I had heard about balsa-plank cores in early production Albergs, but understood that most manufacturers had discovered the virtues of end grain balsa — among them, better compressive strength and had switched early. My boat was probably one of the last to see this type of core. I do know of an Alberg 35 manufactured the same year that has end-grain balsa core.

Whatever the orientation of the core material, most of it was in really bad shape and had to go. The vast majority came out easily. Only a few chunks clung to the bottom skin with any degree of tenacity. I was thankful the core was planked; more often than not I was able to pry up entire planks at a time without breaking them up. This saved a lot of time. I did leave the existing core on the port side of the cabintop because it was in excellent shape and a previous owner had taken care to over-drill many of the fastener holes for the through-deck fittings and fill them with epoxy to isolate the core from water damage.

After removing the core, I let the area dry before I broke out my 6-inch random orbit sander and 60-grit paper. I then sanded the inner skin to remove

> any leftover core and smooth out the surface in preparation for the new core. This was reasonably satisfying in that all the little humps and

bumps from excess fiberglass resin and core quickly disappeared, leaving a nice flat substrate. I also spent time digging out old core from underneath the perimeter of the cabintop where I had left the 2-inch flange.

With the old core removed and the inner skin cleaned up, my only remaining task was to put a bevel on the existing deck. This would allow me to blend in the new deck with the old and maximize the surface contact area between the old and new glass. For a mechanical bond such as this, the larger the bevel ratio the better (12:1 is the standard). Given that *Magic*'s fiberglass top skin was roughly $\frac{3}{16}$ inches, I needed the bevel to be a bit over 2 inches. This was the most miserable part of the whole project.

Grinding reality

I learned a quick lesson about the hardness of fiberglass, even if it is almost 50 years old. I started sanding the bevel with my random orbit sander and 40-grit paper, but it was slow going. Using my excellent math skills, I calculated that using a sander to cut the bevel around all the decks that needed

them would take just under 47 years. My powers of deduction then led me to conclude that this method would not work for me and something more drastic was needed.

I called my friend in the boat restoration business. He laughed when I explained the problem and told me to buy a rubber backing plate that would allow me to fit 24- or 36-grit sanding discs on my angle grinder.

He was right. This absolutely tore through the old glass and, with a little practice, I became somewhat of a caveman artist. With the angle grinder, I am now able to shape bevels with perfect 12:1 ratios into even the most delicate curves.

This method has a downside. When you put a 24-grit disc on a machine that spins at 10,000 rpm and grind a surface with it, you create lots of



Grinding the deck-edge bevels was a noisy, dirty job. By the time Matt was done, dust covered absolutely everything in the shed.

noise and even more dust. It is nearly overwhelming, and I don't believe you can do this task safely without a very good respirator and ear protection. I bought a 3M 6880 full-face respirator with particulate cartridges. That may have been the best \$100 I spent on the project. It is well worth the cost over a half-mask respirator because the grinder dust is very fine and literally gets into everything, including your eyes. A regular dust mask just won't cut it for this job. There is nothing fun about it and, even with a full-face respirator and a Tyvek suit with ankles and wrists taped tight, weeks later I was able to find fiberglass dust in crevices I didn't know I had. It's that bad.

It took about an hour to grind all the bevels on the cabintop and about two hours to vacuum the entire boat shed because a thick film of



whitish grey dust had covered every surface in sight ... including the roof.

That done, I wiped down the cabintop and adjacent surfaces with acetone. I was finally ready to start the rebuilding phase. \varDelta

Matt Bowser got the sailing disease at a very young age

and has been afflicted ever since. After a four-year restoration project, he and his family are finally enjoying sailing Magic again on Lake Winnipesaukee in central New Hampshire. Follow his project blog at www.alberg35.com.

In part two of this article, in the January 2015 issue, Matt will describe the process of replacing the core, rebuilding the fiberglass skin, and patching up the damage.

Tools and supplies

The average handyman will have most of the necessary tools for dismantling the deck, but here are a few Matt used, together with appropriate supplies.

- 6½-inch cordless circular saw
- 15-amp Bosch 7¼-inch saw
- Dremel Multimax oscillating cutter and carbide-tipped blades
- 6-inch random orbit sander and 60-grit paper
- Angle grinder and 24-grit discs
- Shop vac
- 3M 6880 full-face respirator and particulate cartridges
- · Ear protectors
- Hammer
- Pry bar
- Tyvec suit
- Gloves
- 1 x 3 and 2 x 3 wood strapping for braces

Winterizing without tears

Make the engine suck its own antifreeze

18 HSG NPT

QTY 1

D p north, after pulling the boat out in the late fall, winterizing an engine is a mandatory and often unpleasant chore. Draining a raw-water-cooled engine like mine is recommended, but I've never been convinced that all the water makes its way out. So for years, I instead pumped antifreeze through the motor.

This involved pulling the engine intake hose from the seacock and forcing into its end a straight barbed connector with a hose on the other end long enough to reach the bottom of the antifreeze bottle. But before joining them, I had to suck a fair amount of antifreeze through the hose without either choking on it or getting it all over the place. Then - quick like a bunny - I would make my first attempt at sticking the hose onto the fitting fast enough to set up a siphon. The trouble is, on my 33-foot Albin Nova, Mahdi, and I'm sure with many boats, the hoses involved are stiff and nearly impossible to get hold of with both hands at once. They also have a knack for generating bloody knuckles while they are being muscled apart.

And besides, I have little doubt that the less stress I put on hoses capable of sinking my boat, the better.

After trying many other methods, I hit on one that's an absolute cinch. It involves first tapping a thread in the intake through-hull for the engine. My seacock has a %-inch inside diameter, so I chose a %-inch MIP tap that matches barbed nylon fittings widely available in hardware stores (½-inch barb x %-inch MIP). I found this tap





by taking the barbed fitting into an industrial tool supply shop.

Now, when it comes time to winterize, I just screw this fitting into the through-hull from the outside (my boat has already been hauled out, of course). I then stick a plastic hose onto the barb and lead the other end up to an inverted antifreeze bottle hung from the rail. To provide a vent and to make the bottle self-prime, the bottle's cap has a smaller fitting next to the one for the main hose. To this, I've attached a small hose that extends to the bottom of the bottle. I will use this cap again next year on the next antifreeze bottle.

All that's left to do is to run the engine until the appropriate amount of antifreeze has run out of the bottle (a **BY GREG STEIMEL**

half gallon in my case). The job is done without my ingesting any antifreeze or spraying it all over the place — and no bloody knuckles. Δ

Greg Steimel sails the Straits of Mackinac in a 1984 Albin Nova named by a previous owner, for no apparent reason, after a character in the novel Dune. He is a financial analyst, writer, attorney, and occasional political consultant who looks forward to the day he moves to a full-time unpaid position in a boatyard (retirement).



Using a ³/₈-inch tap, at top, Greg threaded the inside of the engine through-hull to accept a nylon barb fitting, upper middle. After inserting the barb, lower middle, he connects a hose from it to the antifreeze bottle, above.

Maintenance on the run



any resources are available to help owners of good old boats complete their projects in the best possible way: seaworthy, beautiful, and long-lasting. However, I was recently faced with a project that demanded different priorities: quick, cheap, and strong enough for a brief trip.

A neophyte sailor had enlisted my assistance in finding and purchasing a suitable boat. After looking at a number of models, he chose the Alberg 30 as his dream boat for a possible voyage to distant places. After much searching, we located one in his price range within a reasonable distance away — 750 road miles. She had a newer diesel engine and was reported to be in sailing condition. The voyage home would be 600 miles, mostly in the Intracoastal Waterway, but there would be an unavoidable 150-mile passage across open water. Overland shipment would have been a budget buster.

He put down a deposit and made arrangements to inspect her. My work schedule limited me to a Friday night departure and a return in time for Monday morning duties. After an overnight drive, we arrived early Saturday in a light rain and met the seller, who had an obligation later that morning. So, after a brief walk-through, we did the sea trials first. Upon our return, the port upper shroud appeared to be considerably more slack than it had been before we left the slip.

A quick look below revealed that the chainplate was dislodged and hanging by a single bolt head. A thorough inspection revealed only minor issues otherwise, none of

No time for

BY JOHN CHURCHILL

which required immediate attention prior to the planned return voyage or were expensive deal-breakers. But, if the boat was to be sailed home, that chainplate had to be secured, which meant reinforcing the bulkhead. We had to come up with an immediate and low-cost solution, even if it would be only temporary.

A problem with a past

The deck seal around the chainplate had clearly leaked in the past, leading to rot in the entire upper corner of the plywood main bulkhead. At some point, the bad section had been cut away and a new piece fitted and fiberglassed in. The repair was amateurish and did not line up too well with the existing bulkhead. The biggest flaw, however, was that the deck leak had not been rectified and the repair had rotted as well.

That Saturday evening, we studied the problem to determine how the chainplate load could be transferred to the hull structure and what materials we would need to accomplish that. As a trip to the nearest Home Depot was 30 minutes each way, we reviewed our shopping list several times in the hope of avoiding a second trip. The structural challenge was to find a way to transmit the shroud forces to the hull. The inboard portion of the bulkhead and a part of the lower section were soft, but not too far gone. The deck and hullto-deck joint were rock solid. Our plan was to reinforce the rotted area with plywood and enlarge the metal component of the chainplate. Following the reasoning behind backing plates, we decided that a "fronting plate" would prevent the chainplate from sinking into the soft wood. In addition, we planned to pick up some load-bearing area against the underside of the deck on both sides of the bulkhead.

A simple and rapid repair

Borrowing a drill and jigsaw from the seller, we set about our task early Sunday morning. A nearby dumpster yielded cardboard for a template for the plywood reinforcement. Not surprisingly, the old chainplate was easy to remove. Fortunately, ³/₄-inch exterior plywood was available in a 2-foot x 2-foot panel. We cut this to shape, taking some care to fit the upper edge to the deck.

While, ideally, a chainplate would be aligned with its shroud, the hole in the deck was not easily altered, so we repositioned the chainplate to place the bolts in a more solid section of the bulkhead. This also brought them farther from the edge of the plywood. We slid a 2-inch-wide strip of ½-inch

The offending chainplate (inside a locker) was not going to hang on much longer, upper left, and a repair was urgently needed.

perfection

A quick-and-dirty repair gets the boat home

aluminum behind the chainplate vertically to effectively lengthen it, and we placed an additional strip athwartships, tight against the underside of the deck, to prevent it from pulling out even if the bolts failed to hold.

After positioning all the pieces, we drilled all the bolt holes and dry-fitted the assembly. Since the previous repair piece had been installed slightly out of plane with the bulkhead, the backing plywood did not sit quite flush, but it seemed to snug and a half hours. The total cost was less than \$40 and we had some time left for me to complete several other tasks aboard before I had to depart for home.

A safe arrival

The new owner made his 600-mile trip home successfully, including an eventful 150-mile offshore passage. Upon arrival, the chainplate did not show any signs of movement.



The other side of the bulkhead revealed the extent of the rot. It had been shoddily repaired at some time, at left. John and his friend shored up the bulkhead with a piece of plywood butted up against the deck, center. They added bearing area to the chainplate with aluminum strips, at right, coated all the mating surfaces with Liquid Nails, and bolted the chainplate through the bulkhead and its buttress. Dirty, yes, but effective.

down well enough. Knowing this repair was temporary, we used regular steel bolts, but we did splurge a few pennies on fender washers for their surface area.

Once we were happy with the design and fit, we disassembled everything and gave it a generous coating of Liquid Nails. While not an ideal marine adhesive, Liquid Nails was developed for panel adhesion and, of significance to us, it dries quickly. We tightened the bolts until the adhesive squeezed out nicely. We used an additional glob to waterproof the chainplate hole in the deck.

Reattaching the shroud and tuning the rig followed uneventfully. We declared the job complete after just two

The bulkhead replacement project is currently under way, but with much less urgency, an eye toward permanence, and particular attention to getting a watertight seal at the deck. \varDelta

John Churchill grew up in Indiana as a boat-crazy kid. 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 former repo Bristol 35.5, while rehabbing her for extended cruising after he retires.

Sailing simplicity



John keeps Good News, a 1967 Alberg 30, in a slip off the York River in Gloucester Point, Virginia.

have owned my 1967 Alberg 30, Good News, for more than 22 years. While maintenance is always needed on a good old boat - mine is now 46 years young! — I've saved a ton of money and time by *not* doing some common upgrades. I don't race my boat, so that has had a major impact on my decisions.

This is not to disparage "museumquality specimens" or those that are fully tricked out for optimum performance. I absolutely enjoy seeing a classic that has been lovingly restored to "much better than new" condition, whether at the docks, out sailing, or in the pages of Good Old Boat. I wish I had more time and money. Lacking either in sufficient quantity, I have made choices. Here are some "roads not taken" that have allowed me to afford to own and sail a really great good old boat on a modest budget.

1. Don't convert the headsail to roller furling

A 30-footer, especially a CCA design with a small foretriangle (a short "J" measurement) doesn't have huge headsails. My #1 genoa (170 percent LP) and working jib are original sails. The #2 is about 25 years old. I can handle them easily. I like



John, or in this case his brother Charlie, folds jibs on the dock if it isn't too windy, above.



Ways 11

Only buy new if you can't make do

BY JOHN BROOKS

having help when folding them, but I can do it myself if it's not too windy on the dock. They're always carefully folded and stored in a cockpit locker, so I don't have sailbags on the bunks in the cabin. I have a loose-luffed drifter for light-air days.

2. Original topsides gelcoat

Good News has her original white topsides with dark blue cove and boot stripes. Each spring, I clean the hull, use FSR on any stains, and wax and polish the topsides. I do not buff with abrasives, so the gelcoat has lasted. Whitby Boat Works did a good job when they built the boat as there is little, if any, checking or crazing in the surface. I do paint the stripes with enamel paint and get two years out of the "stripe job." I paint the boot top and cove stripe in alternate years so there's



All three folded jibs fit in the port sail locker, at left, along with sheets, guys, and so on. The winches and deck layout are original and work fine for cruising purposes. John installed turning blocks with the intention of adding new self-tailing primary winches, but then backed off due to sticker shock.

to save sailing dollars



The original 1967 white topsides gelcoat is hand buffed and still shines, above, even if it is no longer a mirror finish.



The name and home port on the transom are stick-on graphics, above, done quickly to get John through his first season with the boat until he could get them painted on. That was 22 years ago! Wax has kept them looking good.

always a shiny new stripe. From 10 feet away, no one can believe the topsides are original 46-year-old gelcoat! I did have the deck painted about 18 years ago and it's due for a repaint, but I will keep the topsides gelcoat as long as I can. Of course, a colored gelcoat will not last as long, but that was in my mind when I bought a white boat.



The depth sounder and compass are mounted on the cockpit bulkhead, above. The VHF is down below. John uses a hand-held GPS. Another compass fits on centerline in a bracket installed in the bridge deck.

3. No fancy electronics

I have a VHF, depth sounder, and hand-held GPS. I do not have wind instruments, a knotmeter, radar, or an integrated navigation system. I bought the GPS when the Coast Guard shut down Loran C. Good News came equipped with a very serviceable Loran unit that lasted as long as the Loran system did!

4. No changes to the deck layout

I still use the original Merriman primary winches. They're bronze, have few moving parts, and will outlast me. I have smaller Merrimans on the mast for the jib and main halyards. I can easily trim the genoa jibs (the smaller CCA fore-

triangle helps), even though self-tailers would be nice. For backup, I found

spare winch handles at consignment shops, but fortunately I haven't (yet!) lost a handle over the side. The boat tracks and handles so well that it is easy — even when singlehanding — to handle the halyards at the mast. I see no need to bring the halyards aft to the cabintop so I can reach them from the cockpit. My traveler does not have a rolling block adjuster, but it's not hard to move the thumbscrew stops. I did convert the roller-reefing main to jiffy reefing, so the boom hardware and reefing lines are new. I also upgraded all the running rigging over the years to new lower-stretch double braid.

5. Don't paint the mast

Some don't like the look of an unpainted aluminum mast, especially one that long



The mast is gray and unpainted. The anodizing was lost many years ago. John says he could polish it or paint it but that would require more time each year to maintain.

ago lost its anodizing (if it ever had any). This look works for Nautor's Swans, however, and it works for me. I noticed that many painted masts have significant paint-bubbling "issues" due to dissimilar metals where hardware is attached. A lot of effort is required to prep and paint the spars and maintain the paint thereafter.



Sailing simplicity | 10 ways to save sailing dollars



6. Tiller steering is fine

I have seen several sister ships that have been converted to pedestal wheel steering. This opens up cockpit legroom, but at a high price in cost and complexity. When I needed to replace the tiller, a stock Catalina 27 tiller was a perfect fit. What's more, it's cheaper and easier to put an inexpensive autopilot on a tiller. One came with the boat and lasted me close to 20 years. I'll get another when the budget allows.

7. The interior layout is OK the way it is

As a tall guy (6 feet 2 inches), I appreciate the standing headroom and bunk length on the Alberg 30. Other than replacing the icebox (the new one has a chart table on top) and adding a removable insert between the V-berths in the forward cabin, there has been no drastic interior carpentry surgery. I'm not handy enough to do yacht-quality



carpentry, so I focus my interior efforts on varnish, new cushions and curtains, and other details to make the saloon and cabin feel like home. John chooses the simplicity of a tiller, at left, (here in his brother Charlie's hand) over the complexity of wheel steering. John generally sails alone or with one other so the tiller presents no problems as it might with a larger crew. At anchor, the tiller is stored vertically so it is completely out of the way.



The cabin sole is solid teak planks over plywood, above. John leaves it unvarnished for ease of maintenance. The oriental rug is nice for bare feet.

8. Don't dress up the cabin sole with varnish

The cabin sole on *Good News* is solid teak (no holly) planked over 1-inch marine plywood. While I scrub the sole and keep it clean, I have not been tempted to varnish or replace it with a new teak-and-holly sole. All the other teak (on deck and below) is

The standard Alberg 30 layout has four real bunks with a head and hanging locker between the two cabins, at left. John calls it "1950s CCA Mk I." The main saloon berths are the sea berths and have stowable lee cloths for sleeping under way when heeled.



varnished and that's enough varnish. An unvarnished sole has better footing (remember that we usually sail at a good angle of heel) and isn't going to get messed up by sandy shoes, the occasional dropped tool, or water getting under the varnish. A little oriental rug adds a touch of class for cocktails. With a fire going in the fireplace and oil lamps for light, no one can see the sole well anyway!

9. A propane stove isn't the only way to cook

My boat came with a two-burner Origo non-pressurized alcohol stove that replaced the original Kenyon pressurized stove. I have had a lot of experience with Origo stoves and love them for their ease of use. To convert to propane requires finding a location for the tank (on deck or in a vented locker),

hoses, solenoid, and sensors. The stove itself would cost at least 15 percent of the value of my boat. No thanks.



10. Replace the Atomic 4 only when necessary

The trusty original auxiliary that came with Good News — a Universal Atomic 4 — gave me three seasons of trouble-free motoring.

When an overhaul was eventually required, I found a good used Atomic 4 for \$300. Installing it was cheaper than overhauling the original engine would have been. That replacement engine gave me another 15 trouble-free seasons.

> Having saved up a little coin for the inevitable re-powering, and not wanting to push it any longer, I purchased a Beta Marine16 diesel (Atomic 4 replacement) and had it installed. I gave the old engine and all my spares and parts to the yard that did the job. The Beta 16 is the perfect engine for an Alberg 30. I couldn't be happier with the change, and I did it when I could afford it.



When he switched from the gas engine to diesel, John had to replace the propeller. This one is now in its fifth season, and John likes to give it a good polish in preparation for the annual war on barnacles.

Simply does it

We sailors are not under the impression that our boats are financial investments. What kind of investment could it be if it requires an annual cash infusion of 30 percent of its value? That being said, part of the love affair with old boats is that they bring a quality of sailing and boat ownership experience within a realistic budget that those of us with moderate means can afford. The choices we make reflect the sailing we do and plan to do as well as our priorities for our boats.

Other sailors might come up with a slightly different list of ways to save money, but the concept would be the same. Admirers of good old boats don't need to own a fancy or expensive boat to enjoy the sailing life, nor do we need all the latest in technology, sails, and equipment. There will always be plenty of projects to keep us busy!

John Brooks has been sailing for more than 40 years and currently sails his 1967 Whitby Alberg 30 sloop, Good News, on the lower Chesapeake Bay. He's the veteran of 18 Bermuda Races. A retired U.S. Coast Guard officer, he was at one time director of the Sailing and Seamanship Branch at the U.S. Coast Guard Academy.



The galley is split aft with the icebox under a chart table. John modified the original icebox to add the chart table. The two-burner Origo stove is outboard of the sink on the starboard side.



A boat-selling ad was bait for a phish

During the winter, when temperatures were well below zero, we decided to sell our modest 27-foot sailboat in hopes of upgrading to something with a bit more room. I have little respect for boat brokers, whose slick hard-sell attitudes are akin to nautical used-car salesmen. Although there may be exceptions out there, I have yet to meet any of the good ones. So off we went on our own ... and boy did we receive a lot of interest.

Selling a boat — especially one that has taken such good care of us over the years, one on which I have spilled blood, bruised knuckles and, during the course of maintenance, contorted my body into extreme-yoga positions — is a highly emotional experience. The problem of setting a price was easily overcome by consulting dear friends and crewmates. Their interest extended only as far as the next racing season; for them, the thought of crewing a bigger boat served as encouragement.

So with crew-provided pricing suggestions in hand, a bunch of photos, and a finely formatted listing, we posted to our four favorite free sites: Craigslist, SailingTexas, a Yahoo forum for the boat model, and *Good Old Boat*. (*Good Old Boat* classified ads are free if you're a current subscriber. Really, are there any sailors who work on their own boats who aren't reading *Good Old Boat*?)

Rapid response

As a cyber-security professional, Internet scams are to me what Legos are to my grandchildren: a chance at hours of fun and creativity. So when we received our first email from John H. within 24 hours of posting, I knew the next few months were going to be filled with boatloads of entertainment, pun intended.

Our first response was short. Sent as a Craigslist reply to our posting, John H. wrote, "Mail JohnHxxxx(at)gmail.com with your price."

John H. gets an A-plus for brevity. Our first interested party ... within a day, no less! Although the price was clearly listed in the posting, one cannot overlook potential buyers simply because they miss a few key points in the advertisement. After all, we fully expected the boat to be on the market well into the spring, so this was unexpectedly incredible! Excited at the prospect of kicking off this post-sailing "sale-ing" season so quickly, I replied to John H. at 6:07 a.m.

The pop-up window on my laptop read, "New Message, 6:14 a.m. from sale.craigslist.org."

Although he is prompt, it appears that John H. is unable to read my replies through the Craigslist system and would like me to email him at JohnHxxxx "at gmail dot com." No problemo, John H! I applaud your cyber-security prowess, the way you typed out your email address in the body with "dot com" so it can't be harvested by search engines, even though you are sending it directly to me and not posting it anywhere.

I copied and pasted my previous message into a new email to John H. at his gmail account and hit send at 7:41 a.m. This boat sale thing was way easier and more fun than I had anticipated!

"New Message, 7:47 a.m. from JohnHxxxx@gmail.com!" John must be *really* interested in our little boat. His average response time for the two email messages is 6.5 minutes and it sounds like he is ready to purchase sight unseen!

"Hello," John H. politely replied. "Thanks for the message,Can you assure me the item is in good condition that i will not be disappointed? I'm willing to pay your asking price, I want to buy it for my Brother..I am currently Offshore, I am not able to make phone calls...But I squeezed out time to check this advert and send you an email regarding it but my quickest payment option is PayPal as i can send money via PayPal anytime.. Since I'm requesting this transaction to be done via PayPal, i will be responsible for all the pay pal fee/ charges on this transaction and if you don't have an account with paypal, it is pretty easy, safe and secured to open one... Just log on to www.paypal.com. I hope we can complete the transaction as soon as possible? I have a pick up Agent that will be coming for the pick up once payment clears.... I will like to see more pictures as I look forward to read from you soonest...

"Below are the details needed for PayPal Transfer Your PayPal e-Mail Address: Full name: Firm Price: Cell number: "Thanks."

messages we received from Susan A., Collins M., Alonge C., and Ivan, all willing to pay my asking price! Susan A. said she saw the advertisement on one of the other sites and has an interested colleague who will send me a "certified cashier's check/money order" as soon as I provide my full name, address, telephone number, price, email, and item name."

Collins M. emailed me on the eve of leaving town for the holiday season, apparently in such a rush he misspelled his own name; however, he did have an assistant who happened to be "an avid fisherman and knows a thing or two about boats" and could facilitate the exchange and arrange for shipment.

Alonge C. asked not only if he could pay full price, but wanted to know if his "pick-up agent" could come to my house for the "pick up" because, as he put it, "I don't want you to worry yourself about the shipment." Ivan was also a marine engineer on a ship and wanted to buy our boat as a surprise birthday gift for his father but had limited access to communications, noting, "phone calls making and visiting of website are limited," and was currently in the midst of a terrible storm that knocked their "satellite server" down.

We received many more email messages from people interested in the boat. Most of the scam emails we received were willing to pay our asking price, so long as we could use PayPal or send our bank account information and confirm that they wouldn't be disappointed with the boat. Yes, their grammar was a little choppy and their emails were riddled

Too many clues

A quick Internet search for "PayPal scams" or "Craigslist PayPal scams" yields more than 809,000 results, some with links to Craigslist and PayPal describing various nefarious fraud schemes and others offering helpful advice for identifying and avoiding the pitfalls of Internet sales. Some common tactics involve PayPal overpayments that require sending the additional amount through Western Union to a "shipping company," fraudulent or spoofed email payment confirmations that appear to come from PayPal, and emails that contain links to sites that look like PayPal but are designed to steal your login credentials. In any case, there is a sufficient amount of information on the Internet about these techniques and how to avoid them. But I was in this for the fun as much as the sale.

John H.'s offer was enticing, as were the email



with formatting errors, but anyone who has ever typed anything on a boat bobbing around "offshore" knows that a few extra periods and the occasionally mis-capitalized word are par for the course.

A flesh-and-blood buyer

In the end, we decided not to sell to John H., Susan A., Collins M., Alonge C., Ivan, or any of the other offshore, on-holiday, interested parties. I appreciated their interest and willingness to pay the asking price as well as their tenacity. After all, how many people would take the time to surf the 'net at sea — violent storms raging all about them, broken satellite servers, pending holidays with screaming kids and demanding spouses — all so they could give the gift of sailing to a father or brother? Plus, they all had PayPal accounts that would have made for a quick and easy sale. But I have no experience working with a "pick-up agent," which sounds a lot like dealing with a used-car salesman to me.

The boat eventually sold. The guy who bought her emailed, called, and came to look at her. She was delivered to her new home and will become a liveaboard home for someone who will care for her as much as she will care for him.

With the prospect of being boatless, we started our search. I crafted my pre-visit questions. I decided to omit from my email messages the part about being offshore in the middle of a storm with limited Internet access and a PayPal account full of money.

I have disguised the names and email addresses to protect people with the same or similar identities or those potentially unwitting and unaware victims of identity theft. Although some of the names of interested parties seemed quite unique, why take the chance that there is actually a person with a Franco-Russian name living on the high seas whose sole purpose in life is finding just the right small sailboat for his elderly, yet apparently quite capable, father to sail around the world? Ben Thorsson is a cyber-security analyst and sailor with 10 years' experience cruising, racing, crewing, and skippering a variety of small to



- The buyer offers a cashier's check or money for more than the asking price.
- A similar arrangement using PayPal followed by fake messages from PayPal threatening to close your account if you don't transfer the money as per your "agreement."
- An escrow service scam in which a bogus seller advertises a boat with a very low price on a website. A potential buyer is advised to transfer money to a fictitious escrow service, such as GoogleMoney.com, that may sound legitimate.
- Email red flags include: very poor grammar, spelling, and language use; no phone number is given; generic references to "the merchandise" being sold do not refer to it as a boat or type of boat; the buyer doesn't care what the price is or have any interest in inspecting it prior to purchase; and the buyer doesn't care about titles or verifying the hull identification number (HIN).

BoatUS has more advice about buying and selling boats at www.BoatUS.com/consumer.



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OLD BOAT

Pioneers of Olake, M innebago

Picture the United States 150 years ago as the Civil War was drawing to a bloody conclusion. Long before the Green Bay Packers, sailing was the sport to watch in the state of Wisconsin. One of the earliest places sailing became organized was an area on the northwestern shore of Lake Winnebago, just south of Green Bay, in what is now the City of Neenah. Some accounts speak of thousands of people watching from shore, picnic baskets in tow to make a day of it. Even more spectators were out on the water watching from lake steamers, rowboats, and non-competing sailboats.

The Neenah Yacht Club was formed in 1864 — a year before Abraham Lincoln was assassinated — making it one of the oldest yacht clubs in the country ... quite a feat for an inland lake so far from the East Coast. Few organizations have 150-year-anniversary bragging rights, so club members have been celebrating throughout 2014 and into 2015.

As a charter member of the Inland Lake Yachting Association, the Neenah Yacht Club hosted many races on Lake Winnebago. Captains and crews came long distances to compete for pride and prizes. Transporting sailboats those distances was not easy and involved railroad cars, horsedrawn wagons, or both. The efforts competitors made are a testimony to the pleasure and excitement to be had from sailing on Lake Winnebago.

During those early years, the 1860s to 1890s, the Neenah Yacht Club members primarily sailed Sandbaggers, 20to 30-foot gaff-rigged sloops that used crew and sandbags as movable ballast. In fact, if the final leg of the race was downwind, the bags might even be tossed into the lake! Just before the turn of the century, A Scows came to Lake Winnebago and, in 1900, a Neenah Yacht Club member, Will Davis, won the Class A Scow Inland Lake Championship in his *Anita*.







In the early days of the Neenah Yacht Club, members raced sandbaggers, top two photos, a class that evolved from the oyster boats of New Jersey. The races drew large numbers of spectators, many of them aboard steamboats, at left. Sandbaggers were a "development" class, and building new boats to stay competitive was expensive. To reduce the cost of sailing, a group formed the Nodaway Yacht Club and sailed "one-design" boats, the first of which was the Nodaway Class cat yawl, above, introduced in 1894.

Neenah-Nodaway Yacht Club celebrates 150 years

BY KACEE DES JARLAIS AND DOUG HATCH



In 1894, sailors frustrated with the ever-increasing focus on winning races through boat changes rather than sailing skill formed a second club, the Nodaway Yacht Club. This club had some cutting-edge ideas about sailing that were set forth in its articles of formation:

- To promote pleasure sailing and racing under equal conditions on Lake Winnebago.
- To limit and define the building of new boats to certain class dimensions and club models.
- To establish a standard code of rules and signals for the lake.
- To discourage extravagant expenditure in this revival of yachting, both in the matter of out-building and in the matter of prizes.

For that first sailing season, six members had received their one-design cat yawls. Within two years the club had a respectable sailing fleet, referred to locally as the Nodaway Class. It was a 21-foot craft with a 15-foot 9-inch waterline and a 5-foot 6-inch beam. It drew just 9 inches with the board up and is thought to have drawn 3 feet 6 inches with the board down. It had a 176-squarefoot mainsail, a 74-square-foot mizzen, and a 112-square-foot spinnaker.

In 1905, the two clubs merged to form the Neenah-Nodaway Yacht Club,

The Neenah-Nodaway Yacht Club, formed by the merging of the Neenah Yacht Club and the the Nodaway Yacht Club in 1905, is a haven for active sailors on Wisconsin's Lake Winnebago. Today, it has fleets of Flying Scots, at top, Lasers, and keelboats. Tuesday-night racing has long been popular and draws a variety of boats, upper and lower right. retaining the formation ideals developed by the Nodaway Yacht Club a decade earlier.

In 1926, a youth program was developed. By 1957, the Fox Valley Sailing School was chartered as an independent organization to develop sailors. The FVSS continues as a certified sailing school for kids, teens, and adults.

Today the Neenah-Nodaway Yacht Club boasts a respectable mix of keelboats, Flying Scots, and Lasers. The club retains the same goals set down by the Nodaway Yacht Club in 1894. To read more about the club history and view historic sailing photos, visit www.nnyc.org.

Kacee Des Jarlais and Doug Hatch are proud members of the Neenah-Nodaway Yacht Club. This information was drawn from The History of the Neenah-Nodaway Yacht Club by James C. Kimberly, published in 1957.





Hunter 35.5

She is loved for her comfort and speed

BY STEVE ALLAN

She's one of the sweetest, cleanest boats in the marina, and two of the best people own her. Bob and Barbara Pulyer's 1989 Hunter 35.5 Legend always seems to be faster than the other boats in the cruising club fleet, yet Bob and Barbara make sailing *First Light* look effortless. "If it isn't easy, we don't do it," Bob says. Even though they don't sail the boat hard, *First Light* always seems to be first to weigh anchor or arrive at the day's destination, just as her name suggests.

This might seem somewhat surprising, considering that Hunters are not generally known for their speed. Some sailors have an attitude about Hunters for no good reason, much as the New York Yankees don't get the respect they're due. Then again, the Yankees had some bad years in the 1980s and maybe Hunter did too. I sailed a Hunter 37.5 Legend for a while and, though I didn't think much of her sharp lines or rather stark interior appointments, I must say she was certainly no slouch under sail. This was true even in the notoriously fickle air of the Chesapeake in midsummer. Hunter makes a good product aimed at a certain buyer and, to the chagrin of naysayers, Hunter is still in business

and thriving with thousands of satisfied customers. The company must be doing something right. The 35.5 Legend seems to be one of the things it got right and was perhaps a turning point for Hunter. The fractional rig is fast on most points of sail; this boat performs well and, when it comes to *First Light* at least, always efficiently.

0 342 BG

Hunter Marine USA of Alachua, Florida, built about 700 H35.5 Legends between 1989 and 1995. Designed by the in-house design team as a racer/cruiser, this model replaced the Hunter 35 Legend, which had a different layout and a stock draft of 6 feet 6 inches.

Notable features

When sitting at *First Light*'s helm, you get the sense of a well-thought-out design. Whether Hunter developed the design on the factory floor or based it

on suggestions from owners, everything seems purposefully designed for comfort and ease of handling . . . just the way the Pulyers prefer. The large stainless-steel wheel is easy to get to and away from, thanks to the cockpit's very smart modified-T configuration. It's also possible to see straight ahead unobstructed by the typical bank of instruments mounted above the binnacle. Bob likes the wind, depth, and speed instruments to be right where they are: mounted on the bulkhead. Especially handy is the Uniden WHAM remote microphone for the VHF radio that Bob mounted on the pedestal. He can use it like a handheld but it has the range of the main VHF radio's masthead antenna.

Bob and Barbara Pulyer sail *First Light*, at top, on Chesapeake Bay. Early morning light hints at a promising day of sailing, above.

First Light

There's a lot to like about the Legend series, and Bob likes the inherent stability the most. All of the variably heavy stuff — water, fuel, and holding tanks — is placed along the centerline, lessening trim issues.

Mayor of the marina

Bob, a tad over 70, could be described as the unofficial "mayor" of the marina. Every place has one, and Maryland Marina in Baltimore County, Maryland, is no different. Bob's variously known around the docks as a canvas maker, a fixer, and a problem solver. He's the sort of guy who, like any mayor worth his salt, seems to know the ins and outs of a problem and is willing to offer his advice, if not outright assistance. Sooner or later, each sailor there will go to him. If he can, Bob will advise any of the marina's sailors on how to do something. If they still don't succeed, more often than not he'll be right alongside to help.

Some may wonder why they didn't just let him do the job right in the first place. But there's method in his approach: Bob wants each one to learn how to do it himself. His unspoken mantra seems to be that owning a sailboat should be an exercise in self-sufficiency. If there's a lesson to be learned, Bob's happy to oblige. And he's always experimenting, researching, and generally puttering about finding new ways to improve life aboard *First Light*.

If Bob is the mayor, Barb is the first lady of *First Light*. She is at once cheery and charming, always putting others first, and able to cook up the most delicious desserts and other dishes. On *First Light*, she's in charge of provisioning, loading and unloading, assisting in the running of the boat, and bottom painting . . . among other responsibilities. The two work together as a team and that makes *First Light* a happy ship of the highest order. Barb's set way of handling the foredeck docking and casting-off duties is an example. There is no unnecessary



scurrying about. "If it isn't easy," she reminds me, "we don't do it."

Small boat beginnings

Bob grew up in the shadow of the Delaware Memorial Bridge on the New Jersey side. One day, a kindly neighbor offered him a beat-up old Lightning if he could make her seaworthy. Bob worked on the classic 19-foot racer and taught himself to sail along the Delaware River, a better place than most to test one's mettle, especially in a leaky wooden boat.

Bob met Barb at the University of Maryland and, after they married in 1963, he went to work for Princeton while Barb worked for the state's Department of Education in Trenton. After a stint at IBM for Bob in New York state, they relocated to Towson, Maryland, to raise a family. Barb's office-management skills, that she honed at an architectural firm and later a wooden-pallet company, would come in handy in helping Bob run the boat in a businesslike fashion.

Third in a progression

First Light was already a good old boat when she came to the Pulyers in 2000. Their previous boat was a Hunter 31.5 named *Sanctuary*. Their first sailboat, and the one just before



Bob has not surrounded the binnacle with navigation instruments, above center, preferring an unobstructed view forward. Stern curtains made of screen material cut down the light from a low sun, above left, so Barb and Bob can enjoy the cozy cockpit on summer evenings, at right.



Earthtones complement the teak bulkheads and trim in the saloon, at left. Bob is at home in the galley, at right, where he has plenty of headroom.

the 31.5, was a Super Sea Snark that they hauled back and forth between Ocean City, Maryland, and their home in Towson.

The typical progression of boat acquisition usually includes a waypoint in the 20- to 30-foot range. But not for the Pulyers. Their jump from the ubiquitous 11-foot Styrofoam Snark — perhaps the entry-est of entry-level boats of all time — to a 31-footer was a rather large one indeed, but one they made without regrets. It is true that a 50-pound boat made of the same material as a fast-food takeout container will teach you a lot about wind shifts, stability, and trim. Sanctuary taught the Pulyers about big-boat handling, care, and feeding. The boat had been neglected when they purchased her, but they got to work upgrading her and making her respectable again, just as Bob had done with the Lightning many years before. Then it was time to buy a bigger boat, and *First Light* became the new flagship.

Upgrades aplenty

Bob and Barb are careful and methodical about the upgrades they choose to make to *First Light*. The goal of each one is to improve comfort and functional ease. Nothing looks added on or gadgety. Everything is there for a reason — no more, no less — starting with the connected desert sand Sunbrella dodger and Bimini system that, with the addition of side and stern netting, gives them full enjoyment of the cockpit. The side curtains, Bob says, help cut down the hot Chesapeake sun while keeping mosquitoes at bay. Bob is ever mindful of windage, however, and everything except the dodger can be struck down and stowed quickly and easily when necessary. Even the dodger has detachable panels.

Upon going below, a visitor first encounters a practical galley with a deep double sink. Aft of the galley, the aft cabin occupies the port quarter, and

Improvements made to First Light

Over the time they have owned her, Bob and Barb Pulyer have been constantly modifying and improving *First Light*, as this long list shows.

- Added aft handrail, side rails, and aft struts to the dodger frame.
- Added stainless-steel guard plates for the windlass and a guard plate for the anchor.
- Replaced the battery charger with a Smart Charger Statpower 20 (and later replaced that with the newer Statpower charger with control panel and temperature sensor).
- Replaced all blocks with Garhauer series 40SL blocks.
- Replaced the depth sounder with a Horizon DS150 with throughhull transducer.
- Replaced the AC unit with a Cruisair 12,000 BTU unit.
- Installed an E-Z Kold refrigeration system.
- Installed a dripless seal on the propeller shaft.
- Installed a Schaefer 2100 roller-furling system for the headsail.
- Installed a Balmar 90-70 alternator and MC512 3-stage regulator.
 Replaced all interior cushions with 6-inch foam covered in
- Ultrasuede with vinyl bottoms.
- Replaced the genoa with a North 4800 cruising genoa.
- Installed a Garmin GPSMAP 192C chart plotter.

- Replaced the metal holding tank with a composite tank and also replaced the hoses.
- Installed grabrails on the stern boarding area for ease of boarding from the dinghy or by the ladder.
- Upgraded from the Raymarine ST4000 autopilot to the ST6002.
- Replaced the VHF radio with a Uniden 535 with WHAM wireless remote microphone.
- Replaced the 2-blade prop with a 3-blade Kiwi feathering prop.
- Installed Strong Track and a new mainsail.
- Installed LED lights in the cabin and an LED anchor light.
- Converted the CNG galley fuel system to LPG with a customdesigned and custom-built tank enclosure.
- Soda blasted the bottom and applied four layers of barrier coat paint.
- Installed a replacement Raymarine ST60+ speed instrument and transducer.
- Installed a new fused DC power line from the switch panel to the forward cabin with a 50-amp plug and made adapter cables to fit the DC dinghy pump and the anchor washdown pump, allowing both pumps to be used on the foredeck to inflate or deflate the dinghy or rinse the anchor and chain.



Sumptuous 6-inch cushions topped with Ultrasuede ensure comfort, at left. First Light's nav station is uncluttered and functional, at right.

the head compartment is opposite, to starboard. From there forward to the V-berth is one of the most sumptuous "living rooms" ever designed into a 35-foot production boat, made all the better by the Pulyers' decision to replace all the stock upholstery with 6-inch foam upholstered with a plush mid-brown fabric to set off the boat's off-white surfaces. The table that swivels around the mast's compression post allows for ease of movement and can be arranged in several configurations for entertaining or dining.

The Pulyers installed refrigeration, replaced the reverse-cycle heating and air-conditioning system, and most cleverly converted from the original CNG fuel to an LPG system, complete with a custom compartment for the gas that Bob designed himself.

Bob didn't like the way the stock headsail furling drum was situated inside the well of the anchor locker, so he designed a better setup that

included a new anchor locker lid with a piano hinge and an improved bowsprit for a new Schaefer furling system. One benefit was a headsail that no longer swept the deck, vastly improving the view forward from the helm.

Simple sailing goals

Chesapeake Bay is well known as one of America's greatest cruising grounds. With more than 11,600 miles of shoreline, 4,480 square miles of surface area (550 marinas and 41,000 boat slips in Maryland alone), and countless anchorages, cruisers plying her waters find a great diversity of opportunity and reward. In this, the Pulyers are masters of their universe and First Light will take them wherever they point her bow with expedience and in comfort.

The 10-mile run across to Worton Creek is a favorite weekend cruise. It isn't uncommon to watch a bald eagle fishing around the anchorage



In a light-air moment on the Gunpowder River, First Light's cockpit canvas is "shortened down" for the best view.

there. Longer cruises are generally made in company with the Northern Chesapeake Cruising Club with Bob at the helm in his current capacity as fleet captain. The fleet never strays far from home, and the Pulvers are content with that. For them, the bay is big enough and interesting enough to satisfy their sailing ambitions for years to come or, as Bob says, as long as its

easy. Barb, who is just as content with daysails, heartily agrees. \mathcal{A}

Steve Allan sails and writes out of Baltimore, Maryland. Being from Toronto and used to the cold, he enjoys sailing a 26-foot sloop year-round on Chesapeake Bay.



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The Hunter 35.5 . . .

... and two high-production contemporaries

BY ROB MAZZA

he Hunter 35.5 was one of the many boats built by Hunter whose design credit reads "Warren Luhrs and the Hunter Design Team." Over time, the Hunter Design Team saw a number of chief designers, but Warren Luhrs, who was the driving force behind Hunter Marine, greatly influenced all the boats that were built.

Since the 35.5 Legend, introduced in 1989, was a development of the earlier 35 Legend, introduced in 1986, it most likely involved the design talents of Cort Steck and Ola Wettergren. It was still in production during my tenure at Hunter between 1992 and 1995.

Hunter Marine was one of many high-volume builders of production sailboats in North America in the mid-to-late 1980s. This was a stressful time in the sailboat industry, with a number of builders on the verge of bankruptcy. C&C went under for the first time in 1986 and many others followed. Since the three dominant high-volume builders at the end of this period of consolidation in North America were Hunter, Beneteau, and Catalina, I thought it made sense to compare the Hunter 35.5 and the equivalent models from the other two surviving competitors. I chose the Beneteau First 35s5, introduced in 1988, and the Catalina 36, introduced in 1982 but thoroughly updated in 1994 as a Mk II. All three of these boats had long production lives that extended into the mid-1990s. In each case, I have shown the shoal-draft wing-keel configuration, which was standard on the Hunter but optional on the Beneteau and the Catalina.

The first thing to note is how similar these boats are in overall dimensions. However, both the Catalina and the Beneteau incorporate partial rudder skegs, vestiges of the girth measurements in the IOR Rule, that may or may



	Hunter 35.5 Legend	Beneteau First 35s5 Wing keel	Catalina 36 Wing keel
LOA	35' 7"	35' 5"	35' 7"
LWL	29' 9"	29' 4 ¹ / ₂ "	30' 3"
Beam	11' 9"	11' 10"	11' 11"
Draft	4' 6"	4' 9"	4' 2"
Displacement	12,600 lb	11,460 lb	14,100 lb
Ballast	4,800 lb	4,190 lb	6,600 lb
LOA/LWL	1.20	1.21	1.18
Beam/LWL	0.39	0.40	0.39
Disp./LWL	214	202	227
Bal./Disp.	.38	.37	.47
Sail Area (100%)	569 sq ft	556 sq ft	554 sq ft
SA/Disp.	16.9	17.5	15.2
Capsize Number	2.02	2.10	1.98
Comfort Ratio	23	21	25
Years built	1986-1995	1988-1994	1982-1994
Designer	Hunter Design Team	Jean Berret/ Philippe Stark	Gerry Douglas/ Frank Butler
Builder	Hunter Marine	Beneteau	Catalina Yachts

not be incorporated in the published LWL. This slight extension of the LWL has little effect on performance but can skew the design ratios that involve LWL. At C&C, we got around this problem by using DWL (Designed Waterline Length) for all comparative calculations and publishing the LWL figure, which included the skeg.

The largest difference in the published figures is displacement, with the Beneteau being the lightest, at 11,460 pounds, and the Catalina the heaviest, at 14,100 pounds. This difference is almost entirely in the keel weights — the Beneteau has 4,190 pounds of ballast and the Catalina has 6,600 pounds. When ballast weights are subtracted from total displacements, the hulls are within 500 pounds of each other. I would note, also, that when a wing keel is listed as an option, it should be heavier than the deep-draft keel to achieve the same stability. Catalina published the weight of the wing keel, but I could not find a published weight for the two wing keel options offered on the Beneteau, so have used the only published keel weight I could find.

This difference in displacement and ballast weight has a significant impact on the relative performance of these three boats. Specifically, the lighter displacement of the Beneteau, combined with a sail area similar to that of the Catalina, gives the Beneteau the highest sail area/displacement ratio (SA/D), meaning superior performance in light to moderate winds. However, the Catalina has the highest ballast ratio, the highest displacement/length ratio (D/L), and the lowest SA/D. All this means that the Catalina will have the edge in heavier air, especially upwind where her greater stability will allow her to carry more sail area and she will not have to reef as soon as the others, especially the Beneteau. The Catalina's greater stability will also help on close spinnaker reaches but may not be as much of an advantage off the wind, where the lighter Beneteau will have the edge.

The greater displacement also gives the Catalina a more favorable capsize number and comfort ratio, although the other two boats are not that far removed. However, while the Beneteau may well have the better light-air performance, and the Catalina better heavy-air performance, the Hunter, falling between these two extremes, may have the better all-round performance. That is, she might not win any individual races but would do well in a series sailed in a variety of conditions.

The other thing to note is that the Hunter and the Beneteau have fractional rigs while the Catalina has a masthead rig. The larger headsail in the masthead rig will require more work to control, but the larger spinnaker may well make up for the displacement difference downwind.

These 35/36-footers represent three very interesting production cruiser/racers from the Big Three of sailboat production in North America at a time when their dominance was just being established. Δ

Rob Mazza's bio can be found on page 15.





Helm seat

Shapely support when steering

BY JIM CRAIGHEAD

or years I used several seat cushions as a helm seat. When the boat heeled, I slid them over and sat half on the cushions and half on the seat. It worked fine (nice and soft!), but I was forever rearranging them or picking them up from the bottom of the cockpit. I needed a coollooking rounded helm seat like those I saw on other boats, but I also needed access to the lockers under the seat. This simple helm seat did the trick.

The lengths of the spacers, rails, and top slats will need to be adjusted to fit any particular boat, but these are the dimensions that worked on my boat. For the base, I started with two 32- x 5-inch pieces of white oak. I cut the tops into a curve I thought would be comfortable but left an 8-inch section in the middle flat. I connected them with two oak spacers 8 inches long. Since I've had good luck with clear urethane spar varnish on my deck railing at home, I used the same product on the oak. For the slats I used ³/₄- x 1¹/₂-inch vinyl composite house trim. This stuff is available at most big-box home improvement stores. I could have used wood, but I wanted to avoid the refinishing cycle.

The stern seat in my boat has a curved backrest that forms the back of the cockpit, and I wanted to assemble the seat to match that curve. My solution was to install the slats on top of the two oak rails *in situ*. With the two main rails taped in place to keep them from moving, I fastened the slats to

Materials

- Two ¾- x 32- x 5-inch white oak rails
- Two ¾- x 8- x 2½-inch white oak spacers
- A quantity of 3/4- x 11/2- x 11-inch vinyl composite slats (Jim used 18)
- A quantity of 11/2-inch #10 flathead stainless-steel wood screws



Jim envied the helm seat "bumps" he'd seen on other boats. All he needed to make his own was some oak, vinyl house trim, and screws.

the rails, starting with the middle slat, using a stainless-steel flathead screw on each end. I used 10 x 32 screws as spacers between the slats, and pressed the slats against the back of the seat so I could duplicate the curve of the back of the cockpit. I rounded the front edges of the slats with a router to soften them.

Anyone used to tackling simple projects like this should be able to build the oak frame at home in an hour or so. Another half hour on the boat fastening the slats and the job is done! Δ

Jim Craighead and his wife, Annie, are primarily weekend sailors. Midweek, while their good old S2 9.2A sits alone in Schooner Bay Marina, gateway to the Apostle Islands, Jim is soldering, sewing, gluing, or welding on projects to make her "better." While Jim and Annie know there is no better place to sail her, they are considering adding a trailer-sailer to their fleet.



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Light 'er up like Christmas

How to find an anchored boat at night

N ormally when traveling from the shore by dinghy I have no trouble finding my boat at night ... except, for some reason, in the Great Salt Pond on Block Island in Rhode Island. It's a huge anchorage and, unlike in many harbors, few landmarks are visible at night. No matter whether I leave my masthead anchor light on or not, I have trouble finding my boat. At times, hundreds of boats can be at anchor there with their masthead lights on. Mine is just one in a huge constellation of stars. It's actually quite a beautiful sight, but daunting if you have to navigate it.

Sometimes at night I use a hand-bearing compass, like the character in *The Riddle of the Sands*, and take a back bearing from the dinghy beach. I even have a GPS app on my cell phone, but I still have to spend some time mooching around in the dark in my dinghy trying to find my boat. It's amazing how alike boats can look in the dark.

One year, however, a powerboat next to me had fancy colored underwater fishing lights that could be seen at some distance. Another boat had a portable lantern with a blue LED on it. That gave me an idea. Online, for abut \$10 plus shipping, I found a set of 12-volt LED Christmas tree lights with a long power cable and built-in fuse. The string draws only a few watts, so it won't kill the battery, and it's possible to connect a bunch of them together to make a huge string of lights. There's no mistaking Cliff's boat even in the most crowded anchorage.

I wrapped the lights around the mast and boom. Now when I go ashore at night, I have no trouble finding my boat, once I'm in the right general area. In fact, if I try to turn off the lights when I turn in for the night, my neighbors complain that they can't find *their* boats when they return late from carousing ashore! \varDelta

Ciff Moore's first boat was a Kool Cigarettes foam dinghy with no rudder or sail. Many years and many boats later, he's sailing an AMF Paceship 26 he acquired and rebuilt after Hurricane Bob trashed it in 1991. He is the editor of a community newspaper.





Quick and easy







Grab hook or hookhold

A handy hybrid of a handhold and hook

BY ROB SQUIRE

Love tinkering on my 1960 Pearson Triton. The venerable Triton was built from 1959 through 1967 by Pearson in Bristol, Rhode Island, and also under license to Aeromarine Plastics in Sausalito, California. My boat, hull #96, was one of the early Aeromarine boats. It survived being "ridden hard and put away wet" as the one-design class winner through the '60s and early '70s. It changed hands through the end of the '80s.

By the time I found her in 1990, *Head over Heels* was getting close to the chainsaw. In an ongoing labor of love, her restoration included everything from the deck up and a complete refurbishment of the main cabin. Now, more than two decades later, I'm getting close to turning the corner that differentiates between refitting and maintaining the refit. There's more maintenance going on now, but I'm still trying to add some of the little bits that make life aboard a touch more pleasant.

I wanted some handholds in the head area and I also wanted to add a couple of hooks for hanging things. On a 28-foot boat there's not a lot of space, so I made a combination handhold and hook from a leftover teak handrail.

I cut off the end loop a few inches into the next loop, giving me a handhold loop and a prong for the hook. I rounded the end of the hook, sanded it, and finished it with tung oil.

Once I had mounted the first two handhold hooks, *Head* over *Heels* seemed a bit more complete and I began contemplating where else I could add a handhold that doubles as a handy hook. Δ

Rob Squire recently retired after 29 years as an American Airlines pilot to become a full-time boat bum. He grew up in the San Francisco Bay area where he and his wife, Marilyn, still live. He's been tinkering with his 1960 Pearson Triton, Head over Heels, for more than 20 years and has turned her, in his words, "into a delightful little cruiser."

Rob made his combination handhold and hook from an old length of handrail, top left. With the help of a miter box, Rob cut off the end loop a few inches into the next loop, leaving a handhold and a prong, middle left. He rounded off the end with an edge trimmer he uses on his router, which is small and easy to transport and hold, at left.

Sharp-looking sailor's knife

Spyderco's founder, Sal Glesser, conceived the idea for the Tusk in the early 1980s. More than 25 years later, his son Eric picked up the project and made this multi-function mariner's tool a reality.

The Tusk's handle is precision-machined from two slabs of solid titanium. One end houses a plain-edged blade that locks open with a sturdy Reeve Integral Lock (R.I.L.) mechanism. The blade is ground from LC 200 N, a nitrogen-alloyed tool steel that's extremely tough and has superior corrosion resistance. At the other end of the Tusk's handle is a 300-series stainless-steel marlinspike with a round-to-square cross section for increased leverage when loosening knots. Two features on the Tusk — a milled slot in the marlinspike's body and the gap between the spike and the handle — work as shackle keys for unscrewing and tightening threaded shackles. To allow the marlinspike and its shackle key to withstand extreme leverage during use, the spike locks securely in place with Spyderco's patented Ball Bearing Lock mechanism containing a special ceramic ball.

Constructed entirely of highly corrosion-resistant, state-of-the-art materials, the Tusk was ahead of its time when conceived. Its time has now come. For more information go to www.Spyderco.com.





Tide information at the tap of a screen

Up-to-the-minute knowledge of the state of the tide can help a sailor make safe decisions. MyTide is an iPhone and iPad tool that displays tide and current graphs, moon phases, times of sunrise and sunset, and related information for locations across the U.S. The app works even when a phone is out of network range, as long as the phone has a charge. Select a tidal station from a map to display the data, and flip to landscape mode to obtain greater detail. Pick any single day or a range of days in the future. Set up favorite locations from a map and flick between locations whenever you want. You can even text or email tide graphs straight from MyTide.

For more info and to see a demonstration video, go to www.mytideonline.com.

MyTide is currently available free from iTunes.

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Mail buoy



continued from page 9

Whaler ho!

We saw Mystic Seaport's whaling ship, the *Charles W. Morgan*, on June 25 as she was sailing across Buzzards Bay heading toward her original home port of New Bedford. She was doing about 6.5 knots on her own (without a tow assist) and earlier in the afternoon she hit 8.5 knots. The *CWM* is truly a good old boat!

-Parsons Clark, South Dartmouth, Mass.

Electric outboards?

I greatly enjoyed Jan Irons discussion of dinghy choices in the September 2014 issue. Often this is a "religious," rather than rational, issue and the details she provides are excellent. However, I was a bit surprised to see that in the discussion of power choices, there was no mention of electric outboards like the Torgeedo.

We have a hard dinghy (an Eastport Pram from Chesapeake Light Craft) with oars, a sail rig, and a Torgeedo 1003 electric outboard. We do coastal cruising in New England, and this has been a good combination for us. The Torgeedo has two big advantages in my mind: first, I don't have gasoline on board for any purpose and, second, it's light. Its overall weight is 29 pounds and it breaks down in seconds into three pieces, the heaviest of which, the battery, is just over 10 pounds. My spouse can hand me the various pieces without needing a motor lift, rigging off the boom end, or similar setups. We've never had a range issue. Last year, we were out for a week without recharging the battery. The dinghy itself is limited to 2.5 horsepower, so the relatively low power of the Torgeedo isn't an issue. Best of all, even at top speed, you can barely hear it running! -Dan Rawson, Newtown, Conn.

Lanyard on the shackle?

I read with great interest David Lynn's article about lanyards ("Lanyards: the Sailor's Keepsafes," July 2014). The little but helpful things sailors share help make life more interesting. What caught my attention is that the lanyards were pictured

Send questions and comments to *Good Old Boat*, 7340 Niagara Lane North, Maple Grove, MN 55311-2655, or by email to jerry@goodoldboat.com. on the load-bearing ring of the shackles. The function of the lanyard is to be able to open the shackle quickly without trying to find the key ring. The lanyard needs to be attached to the key ring. The big ring is for the load, such as the halyard or whichever line ends with the shackle.

-Jerzy Krzaczynski, Gurnee, Ill.



David's reply

Jerzy, you're absolutely right. The lanyard should be on the ring attached to the pin and not the load-bearing ring. Its purpose normally, of course, is to make it easier to open the shackle. (A simple loop of small stuff works just as well. I just like the look of a lanyard on my shackles.) The reason I attached it to the larger ring was to better illustrate how to make the lanyard. I wanted to use larger line in contrasting colors to make the photos clearer, and the line was too large for the smaller ring. I guess if someone made the lanyard in the photos long enough, it could be used as a dog leash! –David Lynn, East Walpole, Mass.

Lanyard put to good use

Just thought you might be interested that I made a lanyard like David Lynn's in the July 2014 issue for my rigging knife. I didn't want it too long, lest it snag on parts of the boat, and I made it removable in case I need the knife farther away from my body. It was easy to make and worked out great. The lanyard has many admirers among my sailing friends. –John Pasch, Lake Zurich, Ill.



Waterproofing charts

As a follow-up to Don Launer's "Paper Charts 101" (September 2014), you can "waterproof" print-on-demand charts with Thompson's Water Seal. Put some in a spray bottle, spray the chart on both sides, and let it dry. We tested the idea on maps printed for emergency response operations and used a hose to test the waterproofing. The ink did not run and the maps were usable. Such charts also make great fire starters if you are shipwrecked and have a match or two along.

-C. Henry Depew, Tallahassee, Fla.

Silence halyards the Hiscocks' way

I've been an avid reader for many years and an article in a recent issue just forced me to respond.

I hope the names Eric and Susan Hiscock are familiar to you. Eric and Susan were on the leading edge of the "cruising under sail" movement and circled the globe multiple times in their several cutters, all named *Wanderer* up to *Wanderer* V

— up to Wanderer V.

Eric was an inventive soul and compiled many useful hints regarding sailboat operation into a complete book. One of these "hints" was a simple device to eliminate "halyard slapping." Thus the article that caught my attention, of course, was "Silent Nights" in the March 2014 issue of *Good Old Boat*.

We have had a Cape Dory 31 for about 25 years. It is cutterrigged and has spinnaker gear and topping lifts, so is blessed with an abundance of halyards. One of the early modifications





we made was to install our "Hiscocks," which is what we termed our halyard controllers. To this day, I have never seen another boat equipped with this simple device. They work perfectly and require little skill or money to make.

Take two pieces of wood (thin plywood is probably best) about 6 to 8 inches square. Cut each into a sort-of boomerang shape (the exact shape will depend on the configuration of your lower spreader). With a rasp, shape each of the boomerangs on one face (the bottom), so it

will readily lay across the top of the spreader with the ends facing outward. Affix one to the top of each spreader about a foot or so from the mast with a couple of stainless-steel screws and some 3M 5200. I also coated ours with West epoxy, rather than varnish, for durability against abrasion.

A quick flick will whip a halyard into the Hiscock where it will stay securely once some tension is applied and the halyard is cleated. Remember, of course, to flick the halyard out from its Hiscock prior to using it to raise the sail. Any unused halyard can always stay "parked." We find that the diamond-shaped rigging that results is pleasing to look at.

-Rick Weiland, Waunakee, Wis..

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A suspense novel written for sailors by sailor/author, Tom Wells.

Paul Findlay is living his dream, sailing the Great Lakes aboard his beloved sailboat and writing about his voyages to pay the bills. When Paul receives a cryptic call for help from his old college roommate, Rich Perry, the dream quickly turns into a nightmare. A deadly game of cat-and mouse across the greatest of the Great Lakes begins . . .and the cat has all the modern advantages.

About the Author

Author Tom Wells is an engineer, a longtime sailor, and a Contributing Editor and boat reviewer for *Good Old Boat* magazine.

He has a sequel in the works, featuring Paul Findlay and his sailboat in another nautical setting.

What readers are saying

This book is addicting. It practically reads itself ... [*Superior Run*] could be the offspring of Tom Clancy meeting Sandra Brown on a Great Lakes cruise ... Tom Wells' knowledge and passion of sailing and the Great Lakes makes this a richer read, enough to whet your interest in one of the most beautiful spots on Earth. I will be awaiting the sequel(s). — Dave, NY

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Kittiwake 24

1974 sloop *Blue Moon*. Completely restored and comes w/customfitted trailer, 4 sails, 6-hp Johnson OB, solar panels, new running rigging, tiller tamer, 2 anchors w/rodes, marine stereo, all new cushions, and much more. She's a real head turner and a blast to sail but has to go. I have a new project boat. Princeton, KS. \$8,000.

> Greg Mohr 785-214-9887 mohr_greg@yahoo.com LadyAMohr.Webs.Com



Alberg 37

1979 Mk ll hull #207. Second owner with over \$30,000 spent in the last 3 years on improvements and upgrading including new Yanmar diesel w/255 hrs, full cockpit enclosure, compass, wheel cover, Icom AIS, starting and house batts, Raymarine C95 multi-function display, Nova Kool 12-volt refrigeration system, and new RF genoa UV cover. Fully equipped for cruising and in sailaway cond. Full inventory list available. Sunshine Coast, BC, Canada. \$59,000 CND. Sieg Lehmann

604-885-9364 slehmann@dccnet.com

November/December 2014

Bill Boyd Catboat 23 1979. 23'x10'x27" draft (5' CB down), 6,000 lb. Wm. Garden design. Pretty, roomy, heavily built, stable, environmentally friendly with lots of character. Will go about anywhere. Folding mast, new sailcover, good sail. New cushions, Porta Potty, new canvas cockpit cover. Triple-axle King trailer. Electric Yacht IB. She's a joy to sail! Williamson, IA. \$15,000. Ford Brockman 641-203-0319 fsbrockman@hotmail.com



Rhodes Whistler 38 1967. Looking for the joys and challenges of owning a true classic? Look into this easy-to-sail, singlehanded, family racer/cruiser. In sailaway cond, *Whistler's Daughter* has been excellently maintained and upgraded. Show potential. Insured for \$55K. Longterm owners will negotiate for a new home with keen purchaser, including travel, inspection, and delivery. British Columbia. \$55,000 OBO.

Wilfrid Worland 250-752-8618 judywilf@telus.net whistlersdaughter. wordpress.com

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Bristol 29

1969 sloop. Herreshoff design coastal cruiser. Well maintained. LOA 29'2", beam 8'11", draft 4'6", 8,400 lb. Tiller. Dacron main and genoa. Standard cabin layout. Atomic 4 gas engine, Monel 15-gal fuel tank. Manual head with 15-gal holding tank. Alcohol stove and icebox, 32-gal FW tank. Oxford, MD. \$19,500.

Cutts and Case, Inc. 410-226-5416 cuttsandcase@verizon.net www.cuttsandcase.com



Pearson Vanguard 32 1963, hull #7. 8-yr restoration. All systems including new Beta Marine engine w/125 hrs, electronics, breaker panel, cabin, topsides, below waterline, restored to concours condition (as commented by local surveyor). 9 bags of sails, vg to new cond. Winter storage paid. Beverly, MA.\$29,000.

Peter Rollins 978-922-5082 n2013q@comcast.net



Quickstep 24 1986 *Hogwash*. Full-keel daysailer designed by Ted Brewer. Quantum sails, Honda BF8 OB, updated instruments and electronics. Gateway Marina, Brooklyn, NY. \$14,000.

John Dyson 347-374-1517 johndyson@optonline.com



Herreshoff H-28 1963. Classic sailing ketch. 30-hp Atomic 4 engine. Exc cond. GPS, Autohelm. 5 sails including cruising spinnaker. Wooden hull. East Lake, OH. \$9,900. Warren Burrows

440-488-6294



Nor'Sea 26

1979. Raised salon w/tandem-axle trailer. Yanmar engine w/320 hrs. RF, bow pulpit w/2 anchors. Fridge/freezer, pressure water, 2-burner propane stove w/oven, vacuum head, watermaker, 1,800W inverter. All lines led to cockpit, WS. 4' draft, full keel. Stored indoors. Payson, IL. \$27,000. Larry Waters

217-653-2384 waterse@adams.net



Ericson 25+

1979. Great cond. Fun-to-sail freshwater boat. Fixed fin keel, RF jib, sail drive, 9'3" beam, 6' headroom, VC17 bottom paint, Garmin chart plotter, VHF, battery charger, 6 sails including spinnaker and 150 genoa. Many upgrades since '10. Stored in its steel cradle at Torresen Marine in Muskegon, MI. Motivated multi-sailboat owner. \$6,900 OBO.

Rodney Nettleton 517-580-2260 rn6241@icloud.com www.yachtworld.com/core/ listing/pl_boat_detail. jsp?&units=Feet&id=2675593



Vindo 35

1976 Swedish sloop. Sound fiberglass hull. Beautiful teak decks and cabintop over fiberglass. Newer Yanmar diesel 3GM30 (about 11 yrs) w/210 hrs. Fuel system polished, new Racors (*13). RF jib, Bruce anchor. Engineer maintained. Needs some restoration. Annapolis, MD. \$24,000.

William O'Neil 239-565-2345 thejobo@aol.com



Southern Cross 35

1983-1988. Airex cored. New '04 40-hp Yanmar, ⁵/₆" wire, Sta-Lok terminals, Merriman ¹/₂" turnbuckles (like new), bronze Bomar ports, Barient ST winches, Force 10 propane stove. Strong, great sailing bluewater boat daysailed on fresh water all its life. Lovely wooden interior needs a little finishing. North sails: main, staysail, and yankee, all original, in OK cond. 135 genoa like new. Running rigging, original, in OK cond. Marlboro, NY. \$53,000.

John Milici 845-417-6044 845-255-8123 clairemilici@yahoo.com



Tayana 37 MKII

1983. Your winter home or your idyllic sailing life. Circumnavigate the world or the Caribbean. Daysail to the fabled San Blas Islands of Panama or just relax on your mooring and enjoy the warm water and sun. Motivated seller. Reduced price. \$74,000.

William Trindle svcheval@yahoo.com www.sailboatlistings.com/ view/23215



Pearson 28-1 1979. Very well maintained. Foresail cover 1 yr old. Dodger and mainsail cover 2 yrs old. Sails in vg cond. Engine in great cond and runs strong. Harbor View Marina, Newport News, VA. \$9,200.

> Bill Yoke 757-503-2154 yoke97@verizon.net



Heritage West Indies 36 1976 Morgan design. Sloop, skeg rudder, keel-stepped mast. V-berth, U-shaped galley, folding table, alcohol stove, fridge, pressure h/c water, chart table, head and shower. 2 mains, 2 jibs, spinnaker and pole. New mast and strong rigging in '00. Solar panel, windlass, full anchor chain and anchor. Shelter Island, NY. \$29,500. Peter Martini

917-698-3090 xzymartini@gmail.com



O'Day 37

1979 center cockpit. Featured in the Jan 2013 issue of *Good Old Boat*. Great sailing boat, formerly owned by Annapolis Sailing School. Currently on the hard at Harrington Harbour North in Deale, MD, just south of Annapolis. For sale through Midcoast Yachts, Tom Aga. \$27,500.

Philipp Theune 303-832-1150 philipp.theune@gmail.com www.mid-coastyachts.com



Atkin 40

1938. *Destiny* is a museum-quality example of a classic sailing yacht. Mahogany/teak hull on oak frames. Mahogany interior, teak with an oak sole. S/S rigging, otherwise all original. Powered by vintage Gray Marine but Volvo diesel available. Completely re-caulked below the WL February '14. Dauphin Island race winner '14, Wooden boat festival winner '13. Mobile, AL. \$64,900.

Jim Cash 310-463-6902 ifc7601@yahoo.com



Hunter 37

1981 cutter. Classic Cherubini design, perfect for budget conscious bluewater sailor. Sleeps 5 comfortably. Fully equipped w/Yanmar 30-hp diesel, head w/ shower, hot water, alcohol oven/ stove, Garmin chart plotter, VHF. Full set of sails including spinnaker. New barrier coat '07. New transmission '09. Full Bimini and dodger '09. Interior varnished '13. Deck and cabintop painted '14 (4 coats of 2-part epoxy). Most blocks/running rigging recently replaced. Forked River, NJ. \$38,900.

Mark Halprin 732-616-4217 mhalprin@verizon.net

Swan 43

1972. Hull #64 out of 67. World cruiser, fully equipped. Fridge/ freezer, watermaker. Needs cosmetic work. Call for complete list of upgrades. Powerfull sailboat! LaPointe, WI. \$50,000 firm. Gary Krubsack 715-747-2350 madislandservices@gmail.com

Boats for Sale, cont



Allied Seawind 30.5 1962 ketch. Bluewater cruiser. Fully equipped for long-range cruising. Beta 16-hp w/350 hrs. Wind generator, 125W solar, 1500W inverter, new 20A batt charger. Mainsail track slides, whisker pole and track. Fridge, AC/DC, A/C, refurbished interior. Fajardo, Puerto Rico. \$27,000.

Roberto Rodriguez 787-530-2843 rodri_sparks@hotmail.com www.captainsolo.net



Sea Sprite 30 1984 Sloop. Built in Bristol, RI, by CE Ryder. Hull #8. 14-hp Universal diesel engine, new electronics, new propane oven/ stove. Two-owner boat. Endless upgrades, completely outfitted, meticulously maintained. Fairclough winter cover. Must see to appreciate! Old Saybrook, CT. \$36,900.

Gary Brink 860-227-7739 brinkgar@gmail.com

Bristol 27

1977 in exc cond. Lewmar ST winches. Electronic ignition retrofit, all electronics updated '14. FB main. Double-axle trailer cradle. New cockpit cushions, RF jib. Atomic 4 engine recently overhauled. Exc family cruiser. Dryden Yacht Club, Ontario. \$10,900.

> James Brown 807-223-6695 jjbrownbulldog@shaw.ca

Rob Roy 23

1984. Tanbark sails, main, jib, storm jib, spinnaker. 2 newer 4-stroke Nissan longshaft OB. VHF, depth, running lights, compass. Anchor, chain. 3 bilge pumps, 1 electric. Teak washboards, kick-up outboard rudder. Bronze ST winch, propane cooking. Shoal draft 19" to 4'8" w/cb. Main and mizzen masts can be lowered by one person. On trailer 1 mile to launch area on Lake Champlain west shore near Essex, NY. \$8,500. Dr. Albert Haberle 518-962-2923

ajh55@cornell.edu



Rhodes Bounty II Beautiful 1957 41' Phil Rhodes sloop strongly built at the dawn of the fiberglass era. Completely restored inside and out by Deltaville Boatyard over the past several years at a cost far exceeding the current asking price. In the water in Deltaville, VA, in sailaway cond. \$52,500. Skip Madden 804-436-7131

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Cope Dory 30 1982 cutter. Well loved, fresh water. North sails, spinnaker, Corian countertops, bronze through-hulls, screens, AP.

through-hulls, screens, AP. Includes tri-axle galvanized trailer. A great pointing and sailing boat. Full equipment list and photos available by email. Bemidji, MN. \$36,500.

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Issue

Setting standards ...

... and realizing that "perfect" is the enemy of sailing

BY ROGER MARTIN

I once helped a friend who was looking for an apartment. We found one I thought was especially cool and in a convenient location. She rejected it because it was one block away from the most exclusive area of town and she considered that too far away. Her explanation, stated emphatically, was: "I have standards."

We all have standards. The question is, what are they and how do they affect our lives? In working on my boat, I found myself going beyond the old saying, "The perfect is the enemy of the good," and gravitating toward standards that are neither perfect nor good.

Several years ago, I was living aboard the 1970s British sailboat I have long owned. It needed work and I dove in. One project led to another ... that led to another ... and so on.

It's so easy to think, "As long as I have this section of the cabin apart, I might as well fix this and change that." Before I knew it, I had moved off the boat, removed every piece of metal and wood, sanded the boat down to bare fiberglass, repainted it, redesigned all manner of things, and begun the long process of putting it all back together.

In the course of this work, my standards changed. At first, I tweaked each item until I heard myself say, "That's perfect," and felt the glow of satisfaction. As time went by, and I longed to move back aboard, my standard devolved to hearing myself say, "That's good enough." The object of my attention may not have been perfect, but it would do.

As more time evaporated, my standard morphed to, "It's better than it was." I wondered if I was descending into the realm of rationalization. Maybe the item wasn't even good enough, but at least I had improved it some. At least it kept me from coming apart as my boat was coming together.

Later, as I became more physically and mentally exhausted by the project, I heard myself say one day, "I can always change it later." While it may seem as though I had reached the depth of despair, this was a strangely liberating standard. I realized I didn't have to fix everything on the boat immediately. In fact, improvising a temporary solution and living with it for a time became an effective test drive. Sometimes, the test drive was so effective that the temporary became permanent, and I was OK with that.

For example, it's amazing what one can do with some thin line and trucker's hitches. At one point, I was feeling too lazy to install all the hardware needed to properly lock my two companionway hatches and two cockpit lockers. From below, I wedged a dowel against the main companionway hatch to secure it. Also from below, I used a line to secure the aft cabin companionway hatch and the cockpit locker lids.

This meant I had to exit the boat through the forehatch. I secured a line to its underside and ran that line up to the deck through the chain pipe. After climbing out, I made the line fast to the forward cleat and hid it under some loose anchor chain.

I missed seeing all those beautiful brass padlocks, but decided I could cope. I considered my system foolproof: it



The Freedom Tower was still under construction when Roger's son Justin took this photo of *Bucket* from Newport, New Jersey, with the Manhattan skyline in the background. *Bucket* is a Westerly Chieftain.

would either fool a fool, or prove I was one. In any event, I could still "change it later."

Over time, I developed a refined version of the "I can always change it later" standard. I would ask myself, "If I were at sea and had to fix this problem right here, right now, by myself, with what I have on hand, what would I do?"

This often revealed the simplest, quickest, most reliable solution, or at least a healthy place to begin my analysis. I could still "change it later," but it helped to start with the simple and consider whether to complicate it, rather than the other way around.

This process of accepting changes in standards may be anathema to the perfectionists among us. I actually consider myself to be one of them, when I have that luxury. But when I don't, I am grateful for two of the wisest words in the English language: "Oh well." The "oh well standard" does more to get the job done and protect my mental health than any other.

Like my friend, I do have standards. The difference is that my boat is happily back on the water — while my friend is still looking for the perfect apartment. Now, if I could just remember how to unlock my boat. \mathcal{A}

Roger Martin restored his first boat in 1964, a 1950s Wood Pussy daysailer he still owns. He has owned his 26-foot 1972 Westerly Chieftain since 1979. Bucket is now on loan to his son Justin in New York. Roger lives in eastern Virginia.



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