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Issue119 March/April 2018


Photo by Wayne Hamilton

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Good Old Boat™

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MARCH/APRIL 2018
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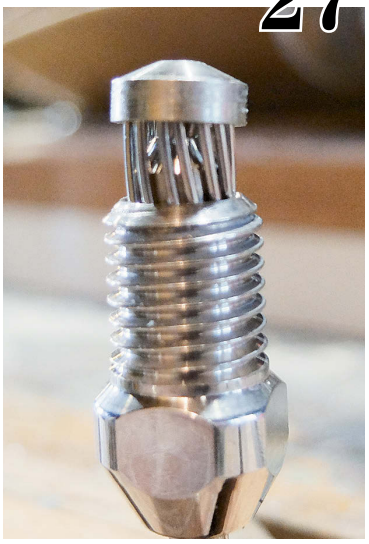
For the love of sailboats

Speaking seriously

On the cover . . .

At about 7:30 in the evening, Dave Debney used a Canon T3 to photograph B dock at Northern Harbour near Kenora, Ontario, on Lake of the Woods. Dave sails *Timeout,* a 1986 Mirage 25, not pictured.

What's more



GOOD OLD BOAT

CEO/CFO/PUBLISHER
Karla Sandness

EDITOR
Michael Robertson
michael_r@goodoldboat.com

SENIOR EDITOR
Jeremy McGeary

ART DIRECTOR/DIGITAL MEDIA
Nancy Koucky
nancyk@goodoldboat.com

ADVERTISING SALES DIRECTOR
Chuck Koucky
chuck@goodoldboat.com

RESEARCH EDITOR
Dan Spurr

ELECTRONICS EDITOR
David Lynn

CONTRIBUTING EDITORS
Drew Frye | Rob Mazza | Connie McBride | Cliff Moore
Fiona McGlynn | Gregg Nestor | Allen Penticoff
Robin Urquhart | Tom Wells | Ed Zacko

DIRECTOR OF CIRCULATION
RETAIL/BOAT CLASSIFIEDS
Brenda Ellingsen
brenda@goodoldboat.com • 701-840-8238

FOUNDERS
Karen Larson and **Jerry Powlas**

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BUSINESS OFFICE:
1300 Evergreen Dr. N.W. | Jamestown, ND 58401-2204
Phone: 701-952-9433 | Fax: 701-952-9434
karla@goodoldboat.com
www.goodoldboat.com

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Boat lit

Looking for a unique gift for a good old boat owner? Maybe a dockmate who's always been there to lend a hand when you need it most? Maybe for yourself? Justin Thompson at SailInfo has spent 20 years amassing a collection of 20,000 sailboat brochures spanning 50 years of production fiberglass-sailboat building. Some are reproductions, but most are the original brochures used by manufacturers to advertise their latest sailboats. Go to BoatBrochure.com and be amazed. Tip: use the Search field at the top of the page. I couldn't find any reference to Fuji or Newport sailboats in the menus, but I used the Search function and came up with what looks like every brochure these companies made. Very cool.

Doing good on a good old boat

What happens when an Aussie animal lover and a Yank sailor get together? A worthwhile adventure that's a pleasure to watch. I learned about the charming Dr. Sheddy and Capt. Joel on YoungandSalty.com, where their website and YouTube channel were profiled. The young couple are sailing the world on *Chuffed*, a 37-foot aluminum sloop built in France's Gamelin shipyard in 1990. Along the way, they're rescuing iguanas, roosters, and turtles, as well as dogs and cats, in communities not served by a vet. Do yourself a favor and get a taste of their world. Go to www.youngandsalty.com, click People, open the Sailing Veterinarian post, and watch the exclusive video at the bottom about the five days they spent doing animal surgeries on eight islands. You'll love it, and it will remind you that there are people in the world living right.

Feeling serene?

Serenity was the most popular boat name in 2017, according to BoatUS, which has been compiling a Most Popular list for more than 20 years. In fact, *Serenity* appeared on the BoatUS annual top 10 list in 17 of the past 26 years, more often than any other name. *Aquaholic* is next, appearing 12 times over the same span. *Seas the Day*, *Obsession*, and *Second Wind* all tied with nine appearances. Is your boat's name unique? Search for it in the US Coast Guard's database of documented vessels (where I found 458 boats named *Serenity*): www.st.nmfs.noaa.gov (search "vessel documentation search"). You won't find more than one Canadian-flagged boat named *Serenity*, as Canada requires that every boat name be unique. This means, of course, fewer *Aquaholics* out on the water.

–MR


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photo by @mikeydetemple
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Filling a niche

Its breadth demands a diversity of content

BY MICHAEL ROBERTSON

Immediately upon assuming editorial responsibility at *Good Old Boat*, I started work on a mission statement. This magazine didn't have one. For 19 years to that point, the vision that informed editorial decisions belonged to *Good Old Boat*'s founders, Karen Larson and Jerry Powlas, shaped and refined over conversations that were their own. I took on the role of editor with my understanding of their perspectives and inclinations, and I wanted to express that understanding in words, to create an artifact the team and I could point to and reference and refine. A mission statement.

Last spring I started in earnest. I created a couple of drafts. I even shared a version with the team. At some point I abandoned the effort. There still isn't a *Good Old Boat* manifesto.

It's not easy to capture an intangible vision in words. And I've come to think it's not necessary, that doing so might be more editorially restrictive and confining than helpful.

Those of us charged with preserving the flavor and tone of this magazine are in constant thought and discussion about what content works best between our covers. We bounce ideas off one another. We gauge reader feedback. We remember to ask ourselves whether each story or design element is one we'll be proud to cast off into the pool of marine journalism.

We're lucky to be able to work that way. While we lack the resources of a corporate owner, we're among the very few independent boating magazines still going strong, and so we retain the flexibility of autonomy. Better yet, we occupy a unique niche in the market. After all, what other sailing magazine focuses on the content we do?

Nobody. We're alone, an island of DIY-focused content for people who own and maintain their own sailboats. Yet our niche is wider than I once thought possible.

In this issue we've included Jim Honercamp's inspiring article about the derelict Vagabond 47 he acquired for next to nothing and turned into a yacht (see "From Abandoned to Brand-New," page 30). I love refit stories; I think they're at the core of much of what we're about. Yet we only have so many pages to cover the world of good old boats and I know I'm likely to hear from daysailing trailer-sailors who would rather see an article dedicated to the refit of a smaller vessel.

West Coast sailors aboard good old boats of any size won't relate to the Mid-Atlantic summertime humidity that drove Drew Frye to install a built-in air conditioning system aboard his catamaran (see "Air Conditioning," page 36). Florida good old boat sailors didn't get much out of our most recent better-mousetrap winter boat-cover article ("A Winter Cover for All Seasons," September 2016), but it sure resonated with Great Lakes sailors. The catboat sailors want more catboats; the swing-keel sailors want more swing keels.

Our niche addresses a diverse group of sailors, a range of readers on a range of boats they sail on a range of oceans and waterways. What I believe we all have in common is our love of the fact that there is a sailboat out there for each of us. That we've acquired the skills to take her out on the water, get her under sail, and find our way back home. That we have the desire to maintain and improve our boats, taking on much of the effort to do so ourselves. That we're part of a community that shares these experiences with others.

Accordingly, I'm always looking for content that addresses what we all have in common. And while no San Francisco-based reader is going to install an AC system aboard their sailboat, hopefully they appreciate learning that there is a Drew Frye out there doing just that, and maybe getting some ideas or inspiration from the way in which he executed the complex project.

In the end, the team and I (a group of sailors as diverse as our niche readership) seek to publish the magazine we all want to read. That's probably as close as I'll ever come to a *Good Old Boat* mission statement.

Alternator supports, seacock questions,

Engineering alternator mounts

I read with interest the letter from John Salinas ("Mail Buoy," January 2018) and David Lynn's reply.

The same Kubota engines that were marinized by Phasor are also marinized by Beta Marine in England, by Nanni Diesel in France, and by WM Diesel in Australia. All of these companies are successful and all offer 120-amp alternators on the same base engine that Mr. Salinas has. When a larger alternator is desired, a lot of engineering is involved to ensure success, and this includes completely redesigning the alternator mounting arrangement and adjusting arm to provide the support to stop any vibration before it starts.

The other thing to take into account is the drive system used to get the output from the alternator. In this area, Beta Marine is the leader with our polyvee belt system (called a serpentine belt here in the United States). This is one of the reasons that our engines cost a little more than the Phasor did when it was new. Phasor offered an engine with a very basic marinization at a low price. Many purchased this engine without any thought as to why it was so much cheaper.

Mr. Salinas experienced all the problems he did because he used a mounting arrangement that is perfectly fine for a small industrial alternator but inadequate for a larger alternator of higher output.

–Stanley Feigenbaum, Beta Marine US Ltd.

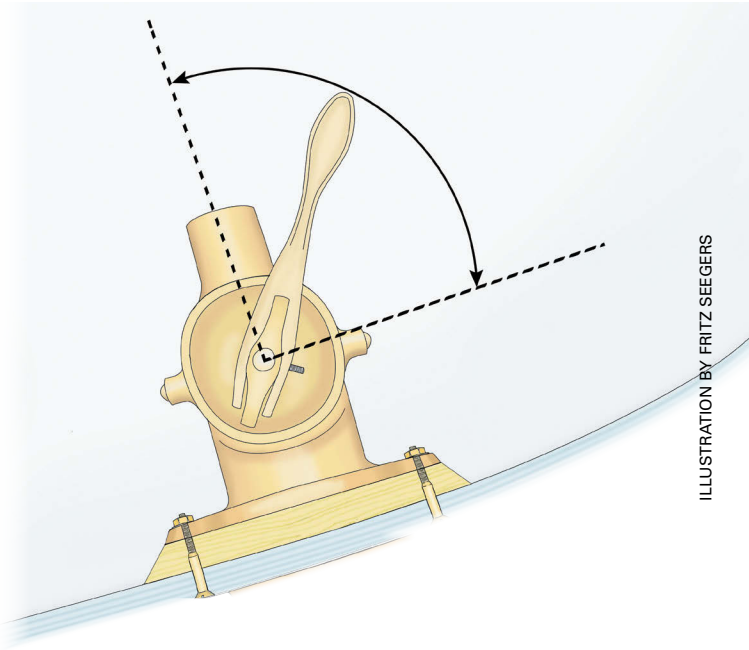


ILLUSTRATION BY FRITZ SEEGERS

Thinking about seacocks

I enjoyed Ed Zacko's thoughtful and well-written article about seacocks ("Battling with Ball Valves," January 2018). I have two questions for Ed.

My first is likely rhetorical, but maybe not: why did it take you three tries with the ball valve before deciding to return to the tapered-cone type of seacock that had served *Entr'acte* so well for so long?

Second, because the proper seacock/through-hull combination has NPS threads, which do not seal, does this installation not require bedding compound on both faces of the backing block shown in the bottom illustration on page 43?

If the backing block is synthetic, I can see how all water avenues can be sealed. If wood, the hole bored through the backing block for the through-hull will have water contact. Unless, maybe, it's epoxy-coated?

–Wayne Richard, Seneca, S.C.

I have several tapered-cone valves on my Atkin wooden schooner. I will follow some of the suggestions this spring when I pull the boat.

The tapered-cone valve in the cockpit has a rubber-like coating around the male part of the cone. Any suggestions for repairs? I grease them every year. This spring I will use the Spartan grease. Wilcox Crittenden used to sell something called Sea-Lube, a water-soluble vegetable oil for head lubrication. My current translation is safflower oil, the only type of vegetable oil that comes close to being water soluble. Any suggestions for winter storage?

–Jim deReynier, Middletown, Conn.

I was glad to see an article on seacocks in *Good Old Boat.* I was disappointed that you left out the Groco SV seacocks. They were made from 1960 to 1993 and are aboard my Endeavour 33. I would think they are on many good old boats.

–Ray Wulff, East Norwich N.Y.

Ed Zacko's response

In answer to Wayne Richard's first question, when the first two ball valves failed, we were in the midst of a 15-year world-sailing saga, and shipping out the old seacock, which was in storage in the US, just wasn't practicable.

As to his second question, we used a thread lubricant/sealer and never had an instance of leaking with properly mated NPS threads. A good dose of bedding compound (polysulphide) on the back side of the through-hull flange and on the threads has worked extremely well for us over the years. I varnished the mahogany backing blocks for the original

and camp-stove caveats

seacocks, including inside the holes, and when I removed them 40 years later, I saw no evidence of water intrusion.

To Jim deReynier, I say, if the Spartan grease works for you, I'd stick with that, or a silicone-based waterproof grease. As for winter storage, that's an article in itself, depending on whether the boat will be in or out of the water.

To answer Ray Wulff, those old Grocos were wonderful units, but since I have no real experience with them, I did not feel qualified to address them.

For another look at all three seacock issues, I recommend Nigel Calder's "Thru-Hull Fittings" in *Good Old Boat* issue #1.

Seacock metals

Given the poor performance of plastics, steel, brass, and bronze in through-hull and seacock applications, it would seem appropriate to use materials that are more resistant to degradation: titanium and Monel. But in my brief web survey, I find only one company that makes a titanium through-hull. Nobody seems to make a titanium seacock, and nobody seems to make through-hulls or seacocks of Monel. Hello?

–Isaiah Laderman, Seasprite 23 *Molto Tortissimo*, Woods Hole, Mass.

The answer in both cases is probably related to cost. In the case of Monel, it can cause electrolytic corrosion in less noble metals in a saltwater environment.

–Editors

Sailboat-design evolution

I read your editorial from the November 2017 issue and loved it. As you say, the world of sailboat designing and building has changed a lot since our vessels were dreamed up and constructed. It was a nice message to hear from a magazine that isn't paid for by all those shiny new boats and their reviews — not that there is anything inherently wrong with that. I've been working hard on our good old boat these days here in Seward, Alaska. I'm almost finished with a new headliner and with a better solution for housing our radar, wind generator, and various antennas.

–Andy Cross, cruising with his family aboard *Yahtzee*, a Grand Soleil 39

Model boats fill a void

Kennedy Lewis' complaint ("Mail Buoy," January 2018) about Roger Hughes' radio-controlled model boat ("A Sailing Model from a Kit," November 2017) is very much misguided. RC model boats are not toys, they are scaled replicas of good old boats.

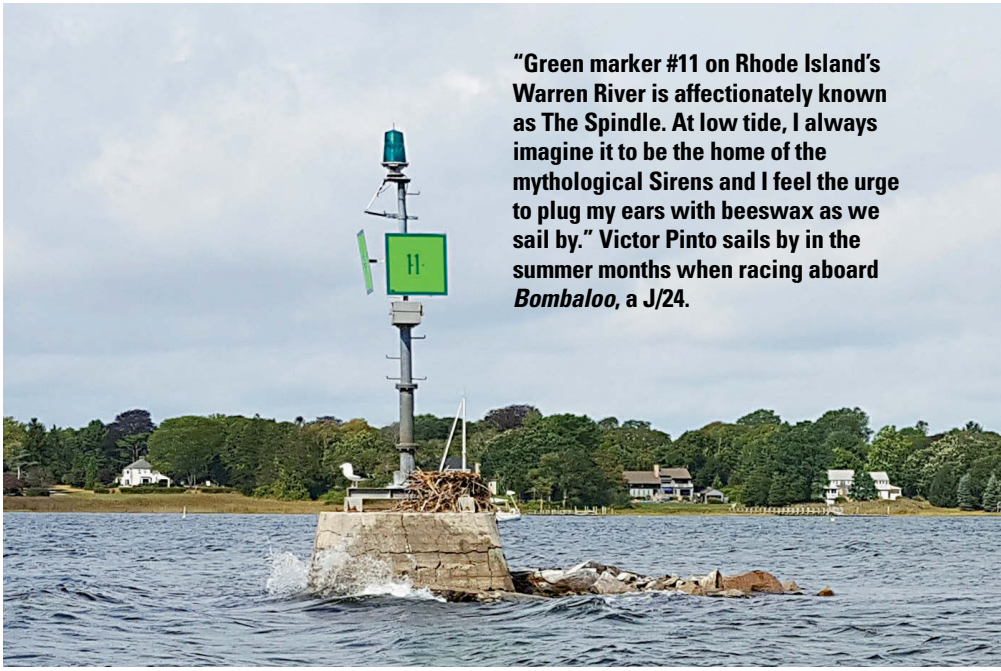
I sold my Nonsuch 26 three years ago as I found that I no longer possessed the stability and strength to be a responsible sailor. I have been sailing for over 70 years, and this year I will celebrate my 84th birthday. Two years ago, I joined a radio-controlled yacht club. We race Mini 12-Meter boats every week and have a great time. This hobby gives many of us senior citizens the opportunity to continue sailing.

Sailing a radio-controlled boat is more difficult than sailing a full-size yacht; you do not get the seat-of-your-pants feedback and the wind on your cheeks. Rounding the windward mark can be very interesting: the mark is probably 400 or 500 feet away, you have six or seven boats all trying to round at the same time, and you can't look to leeward. It's fun.

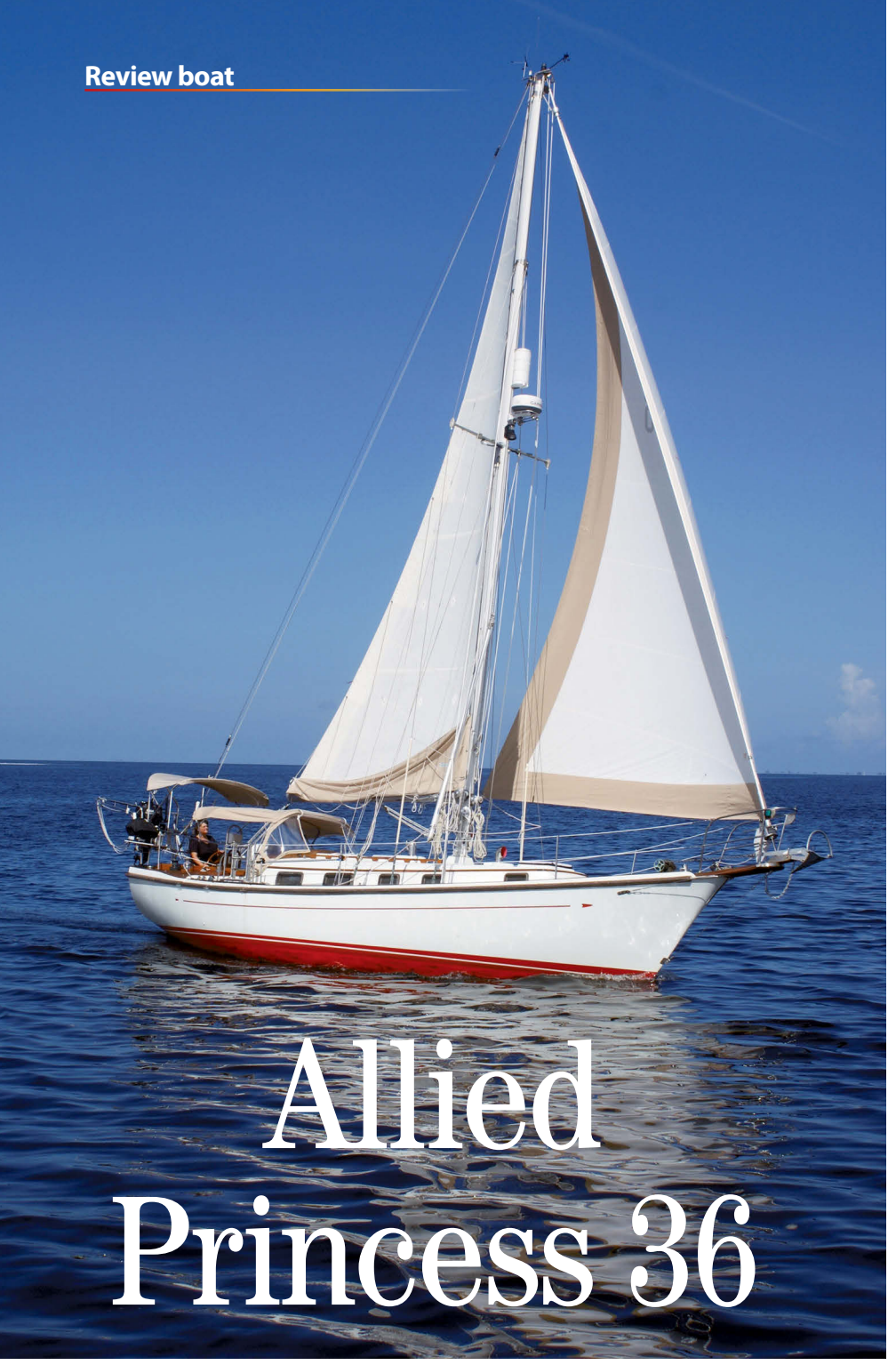
Yes, radio-controlled sailboats do belong in your magazine. I've been a *Good Old Boat* subscriber from the very first issue.

–Chuck Jones, Trenton, Ontario

continued on page 52



"Green marker #11 on Rhode Island's Warren River is affectionately known as The Spindle. At low tide, I always imagine it to be the home of the mythological Sirens and I feel the urge to plug my ears with beeswax as we sail by." Victor Pinto sails by in the summer months when racing aboard *Bombaloo*, a J/24.



Allied Princess 36

A capable, comfortable cruiser with a pedigree

BY TOM WELLS

Cruising-sailboat designs balance comfort and performance in varying degrees, and anyone seeking a good cruiser must take that into account. When Dan and Sherry Frei found their Allied Princess 36 cutter, they had no doubt she had the balance they were looking for.

Dan was born in Wisconsin, but he spent his early years far from open water, in Tucson, Arizona. When he was 11, his family moved back to Wisconsin, and he found himself surrounded by water and boats. He'd always thought of sailing as something worth exploring "someday," and he and Sherry finally decided to try it in 2013. They traveled to Bayfield, Wisconsin, for bareboat certification courses and began chartering regularly in the Apostle Islands through Sailboats, Inc.

It didn't take them long to decide that sailing would become their lifestyle. In 2016, they visited Punta Gorda, Florida, to help Dan's mother relocate, and while there they looked at several boats, although with no serious intent to buy. As Dan tells it, *Wandering Princess* found them through a travel coffee mug he'd left in a broker's office; when he returned to retrieve the mug, the broker remembered that his neighbor had a boat for sale and arranged a visit for Dan and Sherry. They stepped aboard a well-tended Allied Princess cutter, and six weeks later, *Wandering Princess* was theirs . . . or, perhaps more accurately, they were hers. Soon after, they decided that she would also become their home. They brought *Wandering Princess* to Burnt Store Marina on Florida's Gulf Coast, and that's where my wife, Sandy, and I met them.

The Allied Boat Company

Thor Ramsing, Lunn Laminates, and the brokerage firm Northrop & Johnson founded the Allied Boat Company in 1962. They started with molds for a 30-foot ketch Thomas Gillmer had designed for Lunn, and production of the famed Allied Seawind began in an old brick factory in Catskill, New York, followed by the 35-foot Allied Seabreeze and several other models. (A Seawind became the first fiberglass production boat to circumnavigate.) By the late 1960s, the company was facing financial difficulties, and in 1971, Northam Warren assumed sole ownership.

The 36-foot Allied Princess was introduced in 1972, and the company produced 141 hulls over the following 10 years. Most were delivered with the ketch rig, but a few hulls were fitted with sloop or cutter rigs.

The high bow and springy sheerline give the Allied Princess a distinctive look that's easy to love, above left. With her forestay set on a bowsprit, *Wandering Princess* has significantly increased sail area.

In 1974, the company was sold to Robert Wright and two partners. The renamed Wright Yacht Company introduced several more boats under the Allied name, including the Seawind II and Mistress 39. The company again ran into financial problems, and by 1979 it was under control of the local Job Development Authority. Around this time, the Princess II was introduced, with changes that included a bowsprit and cutter rig as options.

Several attempts to return the company to private ownership followed, but none were successful. In 1984, the doors closed.

Design

Arthur Edmunds designed the Allied Princess 36. A center-cockpit model called the Contessa 36 was also offered. Edmunds had previously designed the Mistress 39 and the Wright 40. He also designed powerboats and sailboats for Chris-Craft and S2 Yachts.

A springy sheer and attractive overhangs make the Princess a pretty boat. The long full keel is cut away in the forefoot and draws 4 feet 6 inches. The rudder is trapezoidal, its bronze stock supported by a bottom bearing on the trailing edge of the keel. The prop is in an aperture between the keel and rudder, and well-protected against fouling on crab- or lobster-pot lines.

> "The Princess has a solid fiberglass hull, decks cored with balsa, and interior bulkheads solidly tabbed to the hull to create a tight structure."

The displacement/LWL ratio of 309 and sail area/displacement ratio of 16.4 are fairly typical for a cruiser of the era. With the full keel and ketch rig, the Princess should track well and not overwork an autopilot.

Construction

Allied used a simple and strong approach to construction. The Princess has a solid fiberglass hull, decks cored with balsa, and interior bulkheads solidly tabbed to the hull to create a tight structure.

No fiberglass structural or furniture components were used in the interior. Berth flats and other interior components are built up with plywood. Well-made solid-teak trim and joinerwork complements the teak-and-holly sole. Tied into the bulkheads, it forms a very solid inner structure.

The deck lands on an outward-turning flange on the hull. Marine adhesive seals the joint, which is through-bolted on 5-inch centers. Although a heavy aluminum extrusion caps and protects the joint, the outward projection makes it vulnerable to impacts. *Wandering Princess* was built later in the production run, and instead of the aluminum extrusion she has a heavy teak cap with a brass rubbing strake. The exposed edge of the joint near the bowsprit is covered with a stainless steel strip.

The ballast is lead, encapsulated in the keel.

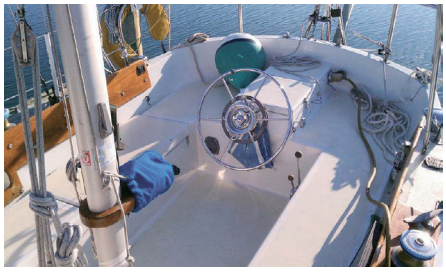
Rig

The single-spreader aluminum mainmast is stepped on deck and supported by single upper and double lower shrouds attached to stainless steel chainplates just inside the low fiberglass bulwark. On *Wandering Princess*, the backstay attaches to a chainplate centered in the afterdeck. Running backstays for her removable inner forestay attach to chainplates along the bulwarks aft of the mast. The traveler is located aft of the helm.

On the popular ketch rig, the chainplates for the split main backstay and the mizzen shrouds are located near the rails outside the cockpit coamings. The mizzen is stepped in the cockpit just

An anchor roller is fitted on the stemhead, at left, and a windlass drops the chain into a belowdecks locker. A heavy samson post is located forward of the windlass, and heavy cleats are fitted to port and starboard. The attachment point for the inner forestay is located just aft of the windlass. The foredeck is otherwise clear.

The sidedecks are wide enough to allow easy movement for crew, at right. A teak eyebrow above the opening portlights outlines the cambered coachroof. Light below is supplemented by hatches over the V-berth forward and over the saloon aft of the mast, and ventilation is enhaced by a Dorade vent forward of the mast to port and another aft of the mast to starboard. A sea hood protects the sliding companionway hatch. Teak grabrails on either side of the coachroof from the sea hood to just forward of the mast step also serve as toerails for crew working at the mast.



Wandering Princess' **aft seating area is enclosed beneath a raised teak afterdeck, at top, to provide additional storage, an LPG locker, and a mounting location for the traveler. As a result, her side seating is reduced in length to 6 feet 9 inches, which is still ample for crew and for a catnap in a pleasant anchorage.**

With no berth under the starboard side of the cockpit, there is good storage for lines, fenders, hoses, and other necessary cruising gear, second from top.

The companionway is protected by a seat-level bridge deck, third from top, a noteworthy feature for offshore sailing.

Worm-gear steering with a forward-facing wheel was standard on the Princess, above. It's robust but it's non-reversing, which means the helmsman feels very little feedback.

aft of the bridge deck. This, combined with the main traveler on the bridge deck just forward of the mizzen, creates a seemingly awkward obstruction, but most ketch owners don't seem to mind.

Reefing and outhaul winches are mounted on the aluminum boom aft of the gooseneck, and halyard winches are provided on either side of the mast. On the ketch, a single halyard winch is mounted on the starboard side of the mizzen.

On deck

Non-skid surfaces are molded into the deck, and a fiberglass bulwark topped by a teak strip provides protection and drainage control. The sheer has a pronounced upward sweep forward, and the sense of walking uphill to the bow is strong. The high bow keeps the ride dry in heavier seas, but its windage can impede upwind performance.

Wandering Princess, built in 1978, is one of the few Princesses built before 1980 to have a bowsprit.

The standard 9-foot-long cockpit has a bridgedeck forward and teak coamings that provide good back support. Allied provided Lewmar #43 two-speed non-self-tailing winches for primary jib sheeting, and they have been supplemented on *Wandering Princess* with Lewmar #44 self-tailers. A previous owner modified *Wandering Princess*, replacing the original worm-gear steering, which provided little feedback ,with the more sensitive Edson pedestal cable/quadrant steering.

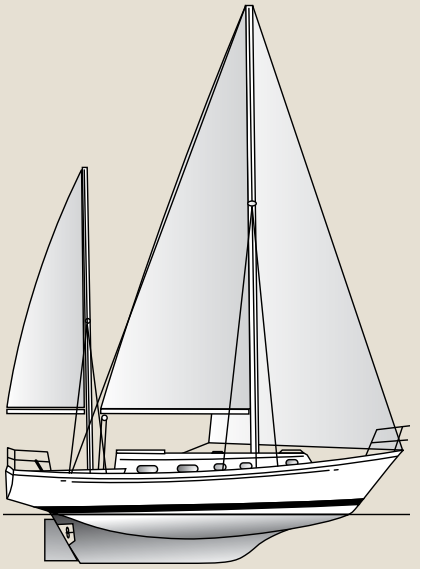
The engine panel was originally placed in the cockpit footwell below the bridge deck, and on the ketch-rigged boats it was obscured by the mizzen. *Wandering Princess'* panel is located on the cabin-trunk bulkhead at the forward end of the port seat. An opening in the cockpit sole provides good access to the transmission, stuffing box, and stern tube.

Accommodations

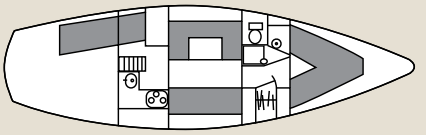
The saloon has a warm and welcoming appearance. Allied used a wood-pattern Formica on most vertical surfaces, but many later boats were built with teak veneer. There are comfortable settees to port and starboard, and three portlights on each side to provide light and ventilation. On original boats, the aft two portlights were fixed and the forward one opened. *Wandering Princess* has opening portlights along both sides. Storage is available beneath the settees and forward of the starboard settee, where there is a lower drawer compartment and an upper hanging locker. The interior was also offered with a dinette in place of the transom berth on the port side.

The head and separate vanity sink compartments each have privacy doors. To starboard there is a large hanging locker, with an opening portlight above it.

Allied Princess 36



Designer:	Arthur Edmunds
LOA:	36 feet 0 inches
LWL:	27 feet 6 inches
Beam:	11 feet 0 inches
Draft:	4 feet 6 inches
Displacement:	14,400 pounds
Ballast:	5,000 pounds
Sail area (ketch):	604 square feet
Sail area (cutter):	595 square feet
SA/disp. ratio: (ketch)	16.4
Disp./LWL ratio:	309
Fuel:	40 gallons
Water:	80 gallons



Note: Most Princess 36s were fitted with the ketch rig shown here. The review boat is unusual in that it is a sloop and it has a bowsprit.

The saloon is attractively finished in varnished teak, above. Because there is no fiberglass overhead liner, backing plates for deck fittings are visible. The teak main bulkhead extends from the port side to the centerline, where it meets the compression post beneath the mast. A folding teak table is mounted on this bulkhead.

The U-shaped galley, to starboard of the companionway, above right, is equipped with a three-burner propane stove with oven, a stainless steel sink forward of that, and an icebox between the stove and the aft bulkhead. Good storage is provided behind sliding doors outboard along the starboard side. Pressure water for the sink is drawn from an 80-gallon tank beneath the sole.

To port of the companionway is a navigation station and seat, at right. An amply sized chart table opens to provide access to storage beneath. Three storage drawers under the navigation table, and shelves above, provide adequate space for the navigator's instruments and tools. Dan and Sherry have converted the standard quarter berth into storage.

With the center insert in place, the V-berth is 7 feet wide at the aft end and 6 feet 7 inches long. Ventilation is good, with a hatch overhead and opening portlights at both sides. A door in the forward bulkhead provides access into the anchor-chain locker. Shelves with teak rails are located to port and starboard.

Maneuvering under power

The original engine was a 25-horsepower Westerbeke diesel. Most owners found that engine inadequate when trying to power into any kind of head sea. Many have been repowered; *Wandering Princess* was refitted with a 40-horsepower Yanmar 3JH4E diesel. Engine access is good, as the companionway ladder and the top of the engine box are removable. The opening in the cockpit sole also provides good access to the rear portion of the engine.

Under power, the boat tracks well and has a solid feel at the helm. The engine drives the boat easily at 5.5 knots at moderately low rpm, and with increased throttle 6.5 knots would be easily reached. Performance in reverse is as expected, with mild to moderate prop walk to port, but the boat can be controlled with careful use of the throttle and rudder.

Sailing performance

We spent two days observing and experiencing *Wandering Princess* under sail. On the first day, we used our own Tartan 37, *Higher Porpoise*, as a chase boat and photography platform. We set out onto Charlotte Harbor in a southeast breeze of 7 to 9 knots. Once we reached our station, we watched as Dan and Sherry put *Wandering Princess* through her paces.

As the breeze built, we saw *Wandering Princess* glide by under great control; the tacks and jibes were smooth. We took notice of the time it took Dan and Sherry to turn the boat, and while she didn't spin quickly on her axis like a fin-keel racer, she did not appear sluggish.

On the second day, Sandy and I joined Dan and Sherry aboard *Wandering Princess* to experience her firsthand. Conditions were similar to those on the previous day, and once the sails were raised we had plenty of breeze. We noticed that, while the boat is initially tender, she settles in and becomes quite stable.

We first took her to windward on starboard tack, and found we could trim her to sail to 40 degrees apparent wind. In 10 knots of breeze she was doing 4.1 knots under good control, tracking well and with no excessive weather helm. When we came about onto port tack, we were surprised to find we could sail a bit closer to the wind, to 36 to 37 degrees, before losing trim.

Resources

Since Allied went out of business, there has been no factory support. There is a website that offers a fair amount of information, including original drawings and specifications, improvements by owners, and related literature:
www.pbase.com/onceagain/princess36

For a history of the Allied Boat Company, see
www.goodoldboat.com/reader_services/articles/allied.php

Comments from owners of the Allied Princess 36

We are *Resolute*'s fourth owners and are in our seventh year with her. She's a very seakindly, sturdy, well-crafted, and capacious "good old boat." We sail her up and down Chesapeake Bay in comfort, safety, and style. She provides responsive sailing in heavy weather and in light air. A steady wind as light as 3 knots will engage her dynamics, as she draws only 4½ feet and points well. She can easily sustain her hull speed of about 7 knots in any steady breeze above 9 knots. With winds above 15 knots, we often choose to fly "jib and jigger" (130 percent genoa and mizzen) rather than reefing the mainsail.

The major downside so far was replacing her decomposing Corten steel 40-gallon diesel-fuel tank. We had a custom-manufactured form-fitting 31-gallon aluminum fuel tank installed in the bottom of the starboard cockpit locker. To us, this was far preferable to ripping up her attractive teak sole to remove—at great expense—her rusting tank, which we instead sealed off.

–**Paul and Janet Carrick**, Havre de Grace, Maryland

Unicorn was purchased as just a hull by a yard in Connecticut, which finished the boat by building a custom deck and interior. As a sloop, she points better than ketch configurations, and we do not find her slow, as reported in some past reviews. The boat feels a little tender with the tall rig. Although the shallow draft is a plus, the full keel makes coming about in light winds a challenge. She is a dry boat, and ships little to no spray from waves or wind. The high sheer can catch the wind when we're trying to dock, but this is a small price to pay for a dry sailing experience in foul weather. I consider this boat to be a good sailer for coastal cruising and for offshore trips.

The hull is well built and shows no signs of osmosis or delamination. The rudder attached to the full keel makes for a protected prop. I changed out the original 2-blade prop for a Campbell Sailer 3-blade, which makes operating under power a more pleasant experience. The mainsheet traveler is at the aft end of the cockpit, which makes installing a bimini a challenge. The boom is 16 feet long. A shorter boom would allow for a cabintop-mounted traveler

–**Dale Cross**, Erbs Cove, New Brunswick

For 30 years, we owned *Nirvana*, a 1978 Allied Princess 36 that we had built new for us by Wright Allied. She was rigged as a ketch with the masts in the usual locations, but was a bit unusual in that I had her fitted with a 2½-foot bowsprit. This increased the J dimension accordingly, which was beneficial for sure. With the powerful sail plan, it was easy to set the proper amount of sail area for any conditions. Here on the Cape, we often sailed jib and jigger very comfortably.

The one significant problem we had was when she was about 20 years old. The fuel tank corroded through and had to be replaced. That was not a pleasant prospect, but with an excellent shipwright here on the Cape, we got the job done, and it was hard to see where he'd removed the cabin sole to reach the tank. The decking surrounding the cockpit gelcoat was poorly done and had to be refinished. All the rest of the gelcoat required just normal maintenance.

–**Sandy and Don Abt**, East Falmouth, Cape Cod, Massachusetts

I purchased a 1977 ketch for $34,000 in 1996, sailed it for about five years on San Francisco Bay, and sold it for $37,000 in 2001. Its most obvious problem was the shoal full keel with its cutaway forefoot. It did not point well and sideslipped, especially when heeling, which it did a lot. In an article in the November 1, 1994, *Practical Sailor*, Walter Schultz, builder of Shannon sailboats, writing about delivering Allieds down the Hudson River, said that, after the Seawind II, the Princess was the second-most-tender boat he ever sailed. Off the wind, she tracked very well, as you might imagine with that long keel. But in the winds of the Bay, we sailed without reefing in 25 to 30 knots and always felt safe (except when coming about; several times we had to turn the engine on to complete the maneuver). I usually sailed it as a sloop; the mizzen didn't do much for me.

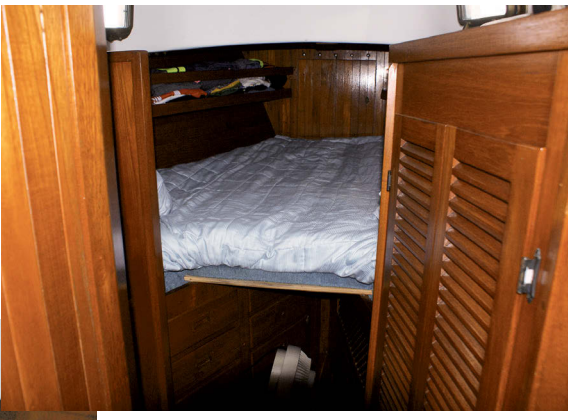
Build quality seemed to be good. I did have to build a new rudder ($5,000), but in general I had no complaints. The interior, although heavy on laminates that were not all that attractive, was solid and sound. There was a significant leak onto and into the chart table. I took off the sea hood twice to caulk it, but I finally figured out the leak was at the mast.

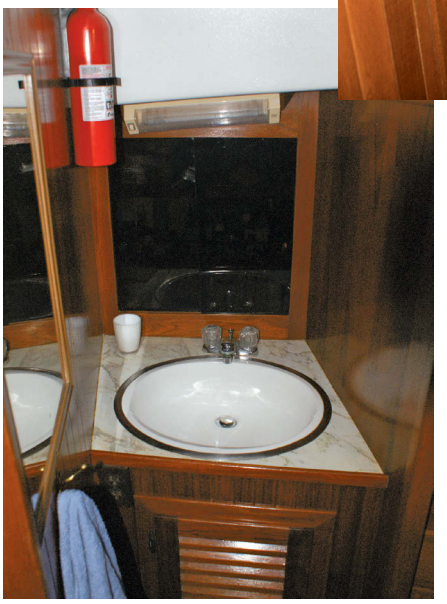
–**Mike Leinbach**, Alameda, California

I have owned a Princess well over 20 years. I am sure you are aware of the many good features of the Princess; here are a couple of the challenges: The fuel tank rusted and leaked. By changing the fuel lines to the stainless steel water tank, after draining and cleaning, you will have a great fuel tank in an optimum location. I fitted a plastic water tank under the port aft settee. I should have put it under the starboard settee because the batteries are on the port side and the result is a minor list to port.

The second issue is the rudder design, which makes it almost impossible to change the Cutless bearing. I have done it twice; once I cut the bronze shaft and removed the rudder to get the new shaft and bearing installed. The second time, I raised the engine from the mounts as high as possible and had barely enough space to put the new shaft through the fiberglass shaft tube with the coupling not on the shaft.

–**David Harrison**, Stockton Springs Harbor, Maine





The head compartment, forward on the port side, above, has a marine toilet and storage along the hull above it. On *Wandering Princess*, a holding tank has been fitted into the space behind the toilet.

A partial-height bulkhead separates the head from a separate vanity sink that lies between it and the V-berth, at right.

The V-berth with filler board and cushion in place is a generous size, upper right. The downside of filler cushions is the need to climb in headfirst and then spin around, a maneuver that's less appealing to older folks.

Dan and Sherry said they had also noticed this. All in all, the windward performance was probably slightly better than we would have found on a ketch-rigged model.

When we footed off onto a beam reach, the boat quickly accelerated to 5.2 knots and was quite stable. This is a good comfort zone for a cruising boat. Going deep downwind didn't produce any noticeable roll, not that we sailed in the higher wind conditions where that becomes an issue.

We finished an enjoyable morning aboard *Wandering Princess* and came away with the impression that the Allied Princess is a solid, stable cruiser. It's not often raced, but the ketch carries a base PHRF rating of 210. That's close to the Pearson 365 ketch at 205. The rating for the cutter rig would likely be a bit lower. The Allied Princess isn't going to win many races, but then, that's not what it was designed to do. Dan and Sherry believe they've found their ideal cruiser, and it's hard to argue with that.

Prices and availability

Not many of these boats are on the market, which may indicate that their current owners intend to keep them. Those we found had asking prices from $26,900 to $44,000, all on the East Coast. A cutter-rigged 1979 Princess in Florida was priced at $32,000. The average asking price was $34,300.

Tom Wells, a Good Old Boat *contributing editor, had a long career as a professional engineer. He and his wife, Sandy, retired in June 2016, and in August 2016 set out from Waukegan, Illinois, on a 3,000-nautical-mile voyage south via the Great Lakes, Erie Canal, Hudson River, and the East Coast. They now live aboard* Higher Porpoise *and are based in Southwest Florida, cruising and enjoying life.*

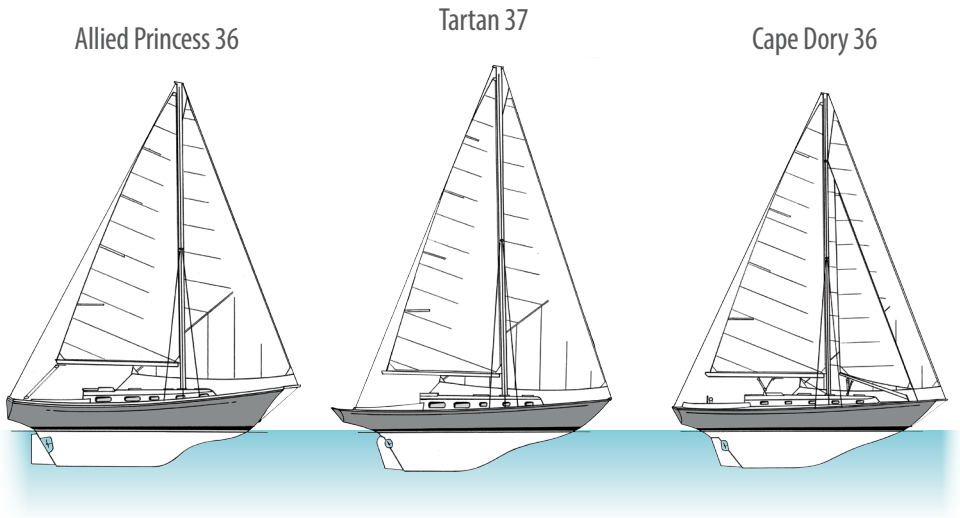
VIDEO

Want to see more?
Visit our YouTube channel,
***Good Old Boat* Magazine**

The Allied Princess 36 . . .

. . . and a pair of popular full-keelers

BY ROB MAZZA



The Allied Princess 36 represents a design concept that persisted for the first half of the 20th century. That is, full keel, moderate draft, cutaway forefoot, comfortable interior, and generally a ketch or yawl rig. The Cal 40 shattered tradition in the mid-1960s with her separate keel and rudder, the configuration that would dominate all racing yachts that followed. By winning the Southern Ocean Racing Conference (SORC) overall in 1968, *Red Jacket* further cemented and legitimized the fin keel and separate rudder. Most production builders, among them Pearson, O'Day, Catalina, C&C, Ranger, Ericson, Tartan, Hunter, and Sabre, switched to fin keels with separate rudders either cantilevered or on skegs.

However, the full keel did not disappear entirely, and persisted for two primary reasons — "traditional" appearance and shallower draft, although I note that, of the three boats in this comparison, only the Princess has a draft under 5 feet. Boats with these features were produced by a number of other builders. It was at this point that the split in the market between cruising and racing sailboats really started.

Gerry Douglas of Catalina Yachts once told me that, in his opinion, the concept of what constitutes a "proper yacht" is instilled in us when we are 14 years old. For that reason alone, there was a strong market in the 1960s and '70s for these boats, as they were the norm when many buyers were in their early teens. However, the allure of shallower draft was just as strong. Owning *Trillium*, a C&C Corvette, albeit with a full keel and a centerboard, I can personally attest and plead guilty to both those motivations.

A full-length keel also has structural advantages, especially when grounding hard or running aground in a falling tide, something with which *Trillium* was all too familiar when we were cruising southern Georgia. Very little structural loading is inflicted on the hull in these circumstances, and the rudder is well protected and firmly attached.

So let's look at two boats similar to the Allied Princess 36 that I have chosen for this comparison. The first, the Tartan 37, an early design from Ted Hood, actually predates the 1972 Princess by a full seven years, and made its debut as the Black Watch 37, built by Douglass & McLeod. It then was built entirely in fiberglass as the Tartan 37, Hood 37, and Little Harbor 37. Its CCA lineage is apparent in the longer overhangs. The second boat, the Cape Dory 36, designed six years later, in 1978, reflects designer Carl Alberg's consistent, unwavering design philosophy.

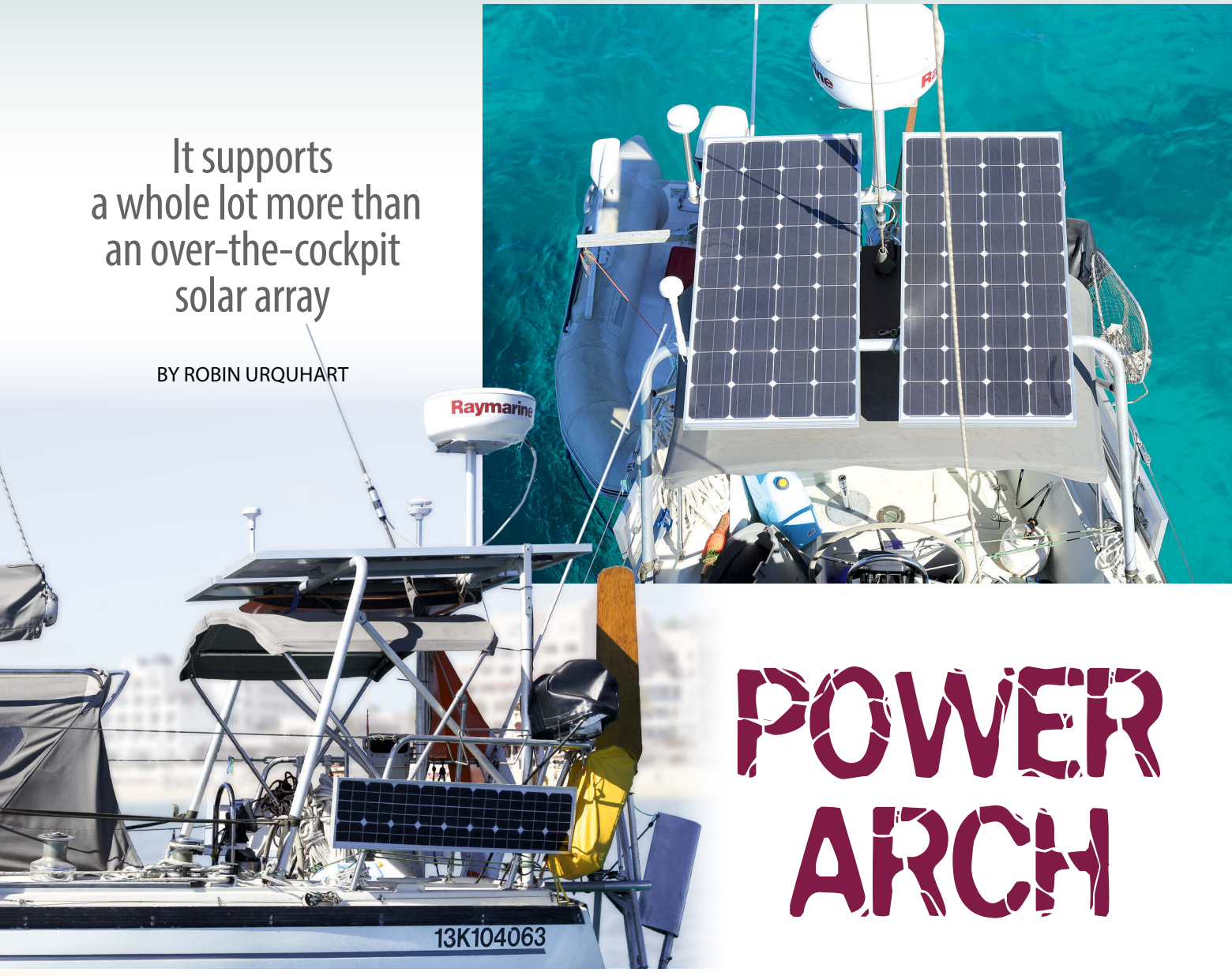
	Allied Princess 36	Tartan 37	Cape Dory 36
LOA	36' 0"	37' 0"	36' 2"
LWL	27' 6"	25' 6"	27' 0"
Beam	11' 0"	10' 6"	10' 8"
Draft	4' 6"	5' 1"	5' 0"
Displacement	14,400 lb	14,600 lb	16,100 lb
Ballast	5,000 lb	4,200 lb	6,050 lb
LOA/LWL	1.31	1.45	1.34
Beam/LWL	0.40	0.41	0.40
Displ./LWL	309	393	365
Bal./disp.	.35	.29	.38
Sail area (100%)	595 sq. ft.	597 sq. ft.	622 sq. ft.
SA/disp.	16.1	16.0	15.6
Capsize number	1.8	1.7	1.7
Comfort ratio	30.4	34.0	36
Year first built	1972	1965	1978
Designer	Arthur Edmunds	Ted Hood	Carl Alberg
Builder	Allied Boat Company	Tartan Marine	Cape Dory Yachts

Note that, because our review boat incorporates a bowsprit, which did not become standard until 1980 with the Princess II, I have included a bowsprit on the Allied Princess for the sake of this comparison. A bowsprit can be added for basically three reasons: to correct excessive weather helm, to provide a platform for anchors, or to convert to a cutter rig. I know from my own experience on *Trillium* that weather helm builds dramatically on a heavy-air reach, the reason for which is not intuitively obvious with so much lateral plane located aft. That may well be the reason for the addition of a bowsprit in this case. However, although our subject boat is referred to as a cutter, I note from the photos that no permanent staysail stay has been added, although an attachment point for it is shown in the photos of the foredeck, and running backstays have been rigged. Therefore, I have shown the boat in a sloop configuration like the Tartan, rather than a cutter configuration like the Cape Dory. Removable staysail stays certainly make tacking easier, but need to be rigged either during or in anticipation of rough weather when you may want to use a much smaller inboard foresail. Rigging a staysail stay in such circumstances and bending on the staysail might be a challenge when shorthanded.

Looking at LWL as a measure of the relative size of these three boats, we see that the Princess is 6 inches longer than the Cape Dory, and a full 2 feet longer than the Tartan. According to the published displacements, the Princess and the Tartan are about the same at about 14,500 pounds, with the Cape Dory considerably heavier at over 16,000 pounds. The longer waterline and lighter displacement of the Princess give it a displacement/length (D/L) ratio of a not too shabby 309, compared to a relatively hefty 393 for the Tartan and 365 for the Cape Dory. The sail areas generally match the displacements, producing sail area/displacement (SA/D) ratios between 15.6 and 16.1, all good ratios for cruising boats. However, the cruising nature of these boats comes through in the capsize numbers, which are all well under 2, reflecting their narrower beams and heavier displacements. The comfort ratios are all also closely grouped in the low to mid 30s.

So, if you had to rank these boats on projected relative performance, the Princess 36 looks to be the more competitive with its longer waterline, lower D/L ratio, and larger SA/D ratio. However, seen through the eyes of my 14-year-old self, that Tartan really is a pretty boat!

Rob Mazza *is a* Good Old Boat *contributing editor who, in his long career with C&C and in other design offices, designed many boats that are now good and old.*



POWER ARCH

It supports a whole lot more than an over-the-cockpit solar array

BY ROBIN URQUHART

"Don't do it . . . just don't." That's the advice we got from nearly everyone we talked to after deciding to build — ourselves — an over-the-cockpit arch on our 1979 Dufour 35, *MonArk*. We'd already considered several mounting options for the 400-watt solar panel array we wanted to install, and determined that a structural arch made the most sense. But after receiving a couple of quotes over $5,000 for a "simple arch," and being young and foolish, we decided to try it anyway. What did we really have to lose?

Well, building it proved more difficult than I anticipated, but we ended up with an attractive, skookum arch that ably holds our solar panels — and offers much more — and cost us only a little more than $250.

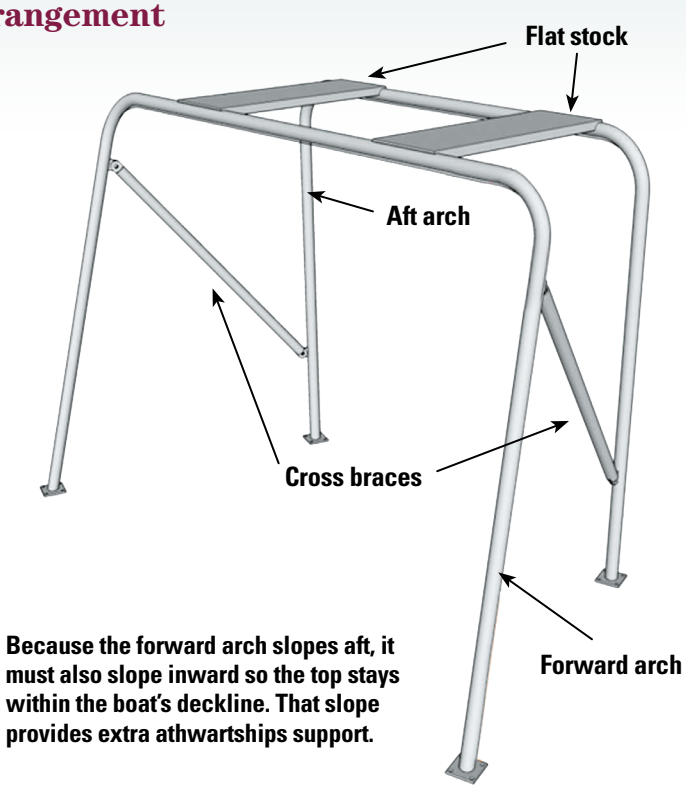
A little about arches

Structural arches, also commonly referred to as radar, solar, or stern arches, are a common feature of coastal-cruising and offshore-outfitted sailboats. They are used for a variety of purposes, but most commonly to support a solar array and/or wind generator, mount a radar radome and various communications antennae, and carry a dinghy. There are as many shapes and sizes of structural arches as there are sailboats. Three primary factors helped us determine the design of our arch: aesthetics, cost, and function. A custom arch provides many advantages, but can be prohibitively expensive (commonly from $5,000 to $12,000). But with a little sweat equity, limited metalworking skill, and some careful measuring, there's no reason why a boat owner can't build a sturdy arch for a fraction of the going rate.

This article details my experience designing, fabricating, and installing a simple aluminum arch to carry solar panels, radar, an AIS antenna, and a weather station, not to mention a hundred other small things. I provide very little engineering guidance, but the design and fabrication principles

***MonArk*'s homemade aluminum arch is simple, elegant, sturdy, and a magnet for cruising paraphernalia, top of page.**

Over-the-cockpit arch, general arrangement



I followed are common to a wide variety of arches, and I hope other boat owners can use them as a basis for designing an arch to suit individual needs and boat shapes. I recommend that anyone choosing to do so first pass their design by someone knowledgeable in structural engineering.

While the size of the solar panels we planned to install was a major determinant of the dimensions of our arch, we had to look at some other factors. The boom was well clear of our proposed setup but we had to allow for the height and swing radius of the windvane. We also didn't want to create any obstruction to getting on and off the boat, especially at head height.

Materials

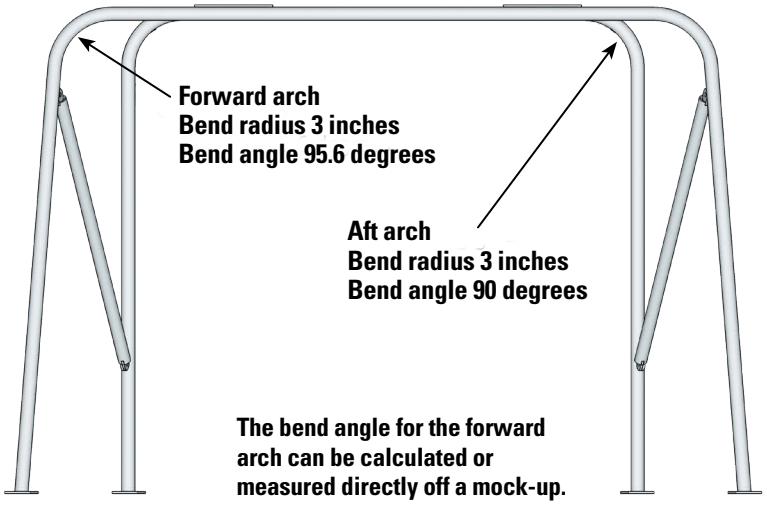
Three materials commonly used to construct an arch are stainless steel, aluminum, and fiberglass. When selecting a material, the factors to take into account are aesthetics, price, strength, and ease of construction. I made a subjective traffic-light comparison of the different materials to assist our decision-making process. Stainless steel and aluminum compared closely for our needs, but as our chief concerns were price and ease of construction, we decided on aluminum.

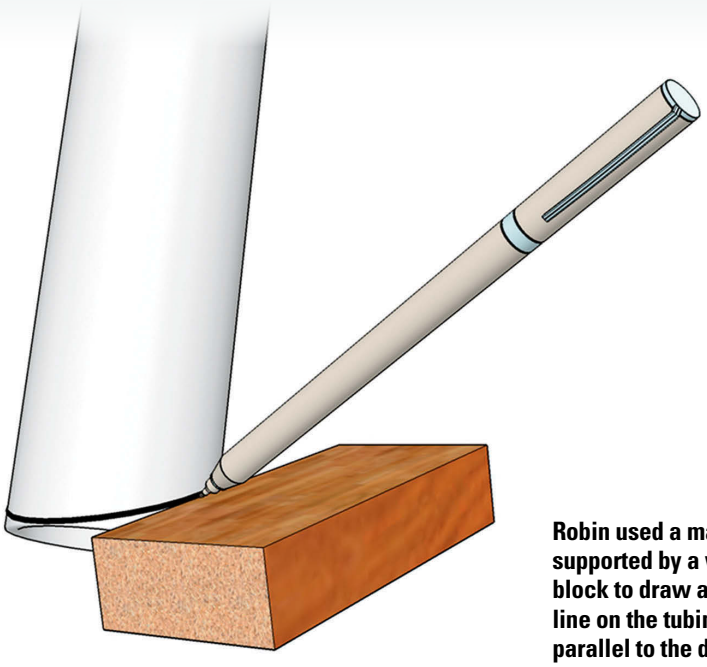
There are many different grades of aluminum, but not a great many that will stand up to the marine environment. We selected 5052 aluminum, a medium-strength alloy with good ductility and excellent corrosion resistance. For the latter property it is often preferred for marine environments.

High-grade aluminum is not easily found in retail building-supply stores. Purchasing metal from a wholesaler, such as Metalsupermarkets.com or Metalsdepot.com, is much cheaper than buying from a local welder or manufacturer. An internet search might turn up metal wholesalers nearby. We purchased our raw materials for the arch for around $70.

In addition to the aluminum tubing, we needed the same type of aluminum in flat stock, as well as stainless steel bolts and locknuts for fastening the frame together and to secure it to the deck of the boat. I made all the required cuts with a hacksaw and a jigsaw, though a metal-cutting blade on a radial arm saw or circular saw would have worked as well. I cleaned up the cut edges and any sharp spots with a 5-inch angle grinder with a grinding disc intended for use on aluminum. I used a titanium-coated drill bit to make the bolt holes.

Over-the-cockpit arch, end-on view





Robin used a marker supported by a wooden block to draw a cutting line on the tubing parallel to the deck.

ILLUSTRATION BY FRITZ SEEGERS

Design

Once we'd selected the material, we had to decide on a shape. We wanted as simple and robust a shape as possible. Many arches have a form that cantilevers over the transom of the boat. While the aesthetic is nice, the primary function of this shape is to support dinghy davits. As a cantilever, it imparts a constant rotational force on the attachment points. We have a windvane on the stern of our boat, so hoisting the dinghy was out of the question. We opted for a simpler shape that transfers load straight down, thereby reducing stress on the attachment points.

Our design makes use of a forward tube and an aft tube with two bends in each tube. Tubes connecting the aft and forward tubes at an angle form cross braces, resisting lateral forces fore and aft and distributing dead load. Two pieces of aluminum flat stock bolted on top of the forward and aft tubes also provide lateral resistance and further rigidity to the frame. The 3-inch-radius bends in the tubes resist lateral forces from the sides. I cut four ¼-inch-thick, 3-inch-square plates from flat stock to serve as feet for the forward and aft tubes and four matching backing plates to go on the underside of the deck.

Calculating tube bends

After measuring everything to ensure there were no obstructions, I determined the slope angle of the forward tube. Sloping the tube aft would give the arch a sleeker look and impede access on and off the boat less than a vertical tube, and for aesthetic reasons I matched the slope to that of the forward tubes of the pushpit.

Because the hull narrows toward the stern, the forward tube must also slope inboard to keep the top corners inside the deckline of the boat. The angle of this inboard slope is dependent on the shape of the deckline and both the height and the angle of aft slope of the forward tube.

To calculate the angle of bend in the forward tube, I went with some fairly complex trigonometry, for which I have created a calculator in Excel using the dimensions of the arch as inputs. Another option for the computer-adept is to draw the desired arch using measurements taken from the boat and a free CAD (computer-aided design) program such as SketchUp and use the protractor tool to measure the angle of the bend.

The more hands-on might prefer to build a mock-up of the arch *in situ* using, say, 1 x 2 lumber and clamps, and measure the angle directly. This option also provides the opportunity to see how the arch interacts with other components of the boat and to make any necessary adjustments before bending metal.

Tube bending

It's worthwhile contacting a metal shop or tube-bending company to ensure that a design can be fabricated without special equipment or techniques. Usually these questions can be answered quickly and over the phone and do not incur a consulting fee. A tube-bending company we contacted advised us to use tubing with a 1½-inch outer diameter and a 0.145-inch wall as it doesn't require annealing (heating and slowly cooling) to bend to a 3-inch radius,

Materials, tools, and costs –RU

Materials

Aluminum alloy 5052 tubing to length:
- .5-inch diameter x .145-inch wall
- 1-inch diameter x .125-inch wall

Aluminum alloy 5052 flat stock:
- 2 x 4 feet x ¼ inch

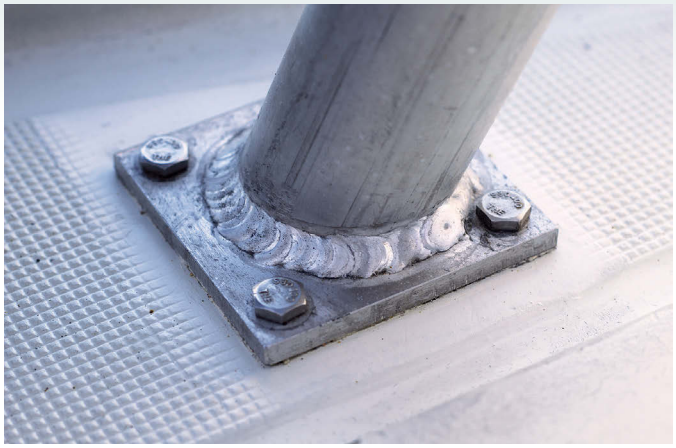
Stainless steel hardware:
- 12 x 1½ x 5/16-inch bolts
- 4 x 1 x 5/16-inch bolts
- 8 x 2 x 5/16-inch bolts
- 24 x 5/16-inch nyloc nuts

Tools

Hacksaw or other metal-cutting saw
Angle grinder
Drill

Cost

Materials (aluminum and stainless steel)	$ 79
Tube bender rental	$ 50
Welding	$113
Sikaflex 291 (1 tube)	$ 12
Total:	$254



The feet of the arches are through-bolted to the deck and backed up by similar aluminum plates on the underside of the deck, at left above. The cross braces are bolted to tabs welded onto the legs of the arches, above. Robin says installing the radome directly over the solar panels, at left, was a bad idea as it shades a small portion of the panels most of the time, greatly reducing solar output.

whereas 2-inch tubing would have required annealing. It's possible to rent a tube bender from a building-supply store for about $50 per day, or purchase a hydraulic tube bender for $100 to $150. We rented a tube bender and found the process quite easy.

Installation

My recommendation is to dry-fit everything prior to welding. It takes a little extra time to assemble and dry-install an arch, only to disassemble it again, but if doing so avoids having to cut welds or modify a finished product it's well worthwhile. We designed and installed our arch while dry-docked in a boatyard. We tried to keep the solar panels parallel to the waterline, but due to weight redistribution, when the boat went back in the water, the panels ended up angled slightly forward. It's better to fit the arch on a calm day at the dock, rather than guess at how the boat will sit in the water.

Measure and cut the tubes

The most difficult process of the whole job was transferring the angle of the deck to the bottoms of the tubes to ensure that the baseplates would be flush when mounted. Because the deck slopes in two directions, it would be impossible to assume an angle at which to cut. The solution we devised was to trace around the tube with an indelible marker resting on a ⅜-inch-thick wooden block.

We first made the tubes as secure as we could in the locations they would be when bolted to the deck. This required installing the flat stock atop the arches, connecting the arches, and then immobilizing them by lashing them to as many points on the deck as we could find. Where the bottom of each tube rested on the deck, we placed the block of wood flat on the deck next to it and, with the marker resting on it, pushed the block around the tube, drawing a line parallel to the deck. I made the cuts with a hacksaw and cleaned them up with an angle grinder.

Welding

The 3 x 3 x ¼-inch baseplates I had cut earlier were to be welded to the bottoms of the arches. We hired an aluminum welder to do this work, and before handing the materials over to the welder, I traced the shapes of the tubes onto the baseplates to ensure their orientation would be correct.

I also had the welder weld tabs to the forward and aft arches and corresponding tabs to the ends of the cross-brace tubes. Because the cross-brace tubes must be the exact length to connect to the attachment tabs on the arches, I measured carefully.

Installing the arches

We bolted the forward and aft arches to the deck prior to bolting together the rest of the frame. We had planned to run the electrical cables for antennae and the radome through the tubes, so we drilled 1-inch-diameter holes in the baseplates and through the deck where the baseplates would be attached. (A 1-inch-diameter hole will accommodate most electrical connectors.) Running a messenger line through the frame is a great help for pulling cables through after the arch is installed.

We applied Sikaflex 291 to the entire underside of the baseplate immediately prior to installation to ensure a watertight connection between the baseplates and the deck. Next, I secured the baseplates with 1½ x 5/16-inch stainless steel bolts that connected to corresponding plates on the underside of the deck. If there is not enough room for a plate on the underside, doubling up oversize stainless steel washers will

meet the pullout resistance requirements. Aluminum in contact with stainless steel will corrode. A simple way to avoid this is to apply lanolin (we used LanoCote) to the bolts to help insulate them from the aluminum.

Bracing the frame

Next, we attached the cross-brace tubes with stainless steel bolts. A little flex in the frame gave us some assistance in fitting them. After that, we installed the ¼-inch flat stock to the tops of the tubes. We had previously cut the flat stock into two 8-inch-wide strips. If rigidity is a concern, bending a 90-degree angle into the length of the flat stock will stiffen it, though over our 3-foot length, we saw minimal deflection in the unbent flat stock.

Finishing

Once the welding has been done, the components of the arch can be anodized or painted to improve resistance to corrosion and enhance the aesthetic appearance of the finished arch. For anodizing, which requires submersion in an electrolyte, the arch must be in its disassembled form. We received a quote for $150 to anodize the arch in any color we wanted.

Another option was to have the arch powder-coated. We received a quote of $100 to paint it white or black. In the end, we opted to do nothing, as we don't mind the dull silver look of the aluminum and we were still penny-pinching. In retrospect, we should have had the arch anodized bright orange, but we were in a rush and focused on keeping costs to a minimum.

A welcome addition

The arch has been extremely useful for its intended purpose, but has become invaluable for the various add-ons that we could never have foreseen. In addition to the items we'd planned for it, the arch has taken on the tasks of supporting the outboard's fuel tank, fishing-rod holders, and a fish-cleaning station. It's a place to hang the stern anchor, furling line, and boom-brake attachment points, and it's where we hang spare line, the outboard-lifting tackle, a boogie board, and spare windvanes. It also adds to the sense of security in the cockpit and is a great handhold in rolling conditions. It was a lot of work, but in the end only cost us $250 and we cannot imagine our little boat without it.

Robin Urquhart is a Good Old Boat *contributing editor. His master's degree in building engineering has been severely tested since he and his partner, Fiona McGlynn, now his wife, headed south from Vancouver, and then west from Mexico, on* MonArk, *their 1979 Dufour 35. Check out their blog at www.youngandsalty.com, where they reach out to younger sailors who share a passion for good old boats.*

Everett Pearson

His passion for boatbuilding helped jump-start an industry

BY DAN SPURR

Everett Pearson (center), his cousin Clint Pearson (right), and Fred Heald founded Pearson Yachts in 1956. Their first boat was an 8-foot dinghy, soon followed by a daysailer and some runabouts. Pearson Yachts introduced the 28-foot 6-inch Triton, designed by Carl Alberg, in 1959, and it was an instant success, at left.

PHOTOS COURTESY OF *HEART OF GLASS* BY DANIEL SPURR

Everett Pearson, rightly considered one of the most important figures in modern boatbuilding, passed away Christmas Eve, 2017, in Providence, Rhode Island, at the age of 84.

For three decades, Pearson Yachts, founded in 1956 in Bristol, Rhode Island, by cousins Everett and Clint Pearson and fellow Brown University alumnus Fred Heald, was a premier builder of quality sailboats in the US. The company's 28-foot 6-inch Triton is often credited with jump-starting the fiberglass sailboat industry. Its attractive lines, seaworthy design, and robust construction were key in countering skepticism about the new material.

Growing up, Everett spent summers at his family's place on the Kickemuit River, learning to sail at age 8. At Brown, he majored in economics and was captain of the football team. While still in college, he and Clint developed an 8-foot dinghy they called the Cub, and began building them for sale. On discharge from the US Navy in 1956, he decided on boatbuilding as a career, and the following year saw the partners introduce the fiberglass Plebe daysailer and a number of runabouts. Tom Potter, a marketer and salesman, convinced the Pearsons to build a fiberglass auxiliary cruiser. That boat was the Triton. They exhibited the first hull at the 1959 New York Boat Show and it was an instant success. When production ended in 1968, they'd built and sold 712.

The success of the Triton led to a string of larger auxiliaries, each designed by a well-known naval architect: Carl Alberg, Phil Rhodes, John Alden, and Bill Tripp.

In 1960, Everett and Clint sold the business to Grumman Aircraft Engineering. Clint left in 1964 and Everett two years later. But neither was finished building boats. Clint founded Bristol Yachts and Everett, together with Neil Tillotson, who'd done very well manufacturing latex gloves, among other products, formed Tillotson-Pearson Industries (TPI) in Warren, Rhode Island, and began building a number of brands: Garry Hoyt's Freedoms with their unstayed rigs; Rampage sportfishermen; Lagoon cruising catamarans for Jeanneau; and numerous models for J/Boats, beginning with the game-changing J/24.

TPI leveraged the composites expertise it had acquired building boats into numerous other industries, producing wind-turbine blades, telephone poles, parts for bridges, airport people movers, cars for Disney amusement parks, and the swim-in-place Swimex pool.

As well as foreseeing the future of boatbuilding in fiberglass, Everett anticipated cleaner air being mandated for glass shops, where workers' health was compromised by breathing styrene and other vapors. In 1993, he partnered with Bill Seemann, who'd developed SCRIMP (Seemann Composites Resin Infusion Molding Process), which captures all of the gases inside a vacuum bag over a closed mold and expells them outside the building. The process also created a cleaner workplace for laminators, who no longer came in contact with resin but placed dry fabrics into the molds.

Among Everett's other notable innovations was to lay balsa wood on the end-grain for use as a core for hulls and decks. The year was 1963. He had been using balsa boards in the Triton deck. When water got into the balsa, it traveled horizontally through the grain, so he started cutting it on the bandsaw to make end-grain blocks. "I was doing that," he said, "when Alex Lippay and Bob Levine came in from Baltek. They said, 'What are you doing?' I said, 'I got to turn this stuff the other way to stop the water from spreading.' They said, 'Jeez, this is what we should be doing.' I said, 'You're right.' That's how Contourkore started. I should have applied for a patent!"

In 2001, with TPI under new management, Everett helped his son Mark develop the True North 38 power cruiser. In 2005, father and son started Pearson Pilings for commercial and residential applications. In recent years, Everett divided his retirement between Rhode Island and Estero, Florida.

Dan Spurr is a contributing editor with Good Old Boat *and an editor at large with* Professional Boatbuilder. *He is the author of seven books on boats and sailing and was formerly senior editor at* Cruising World *and the editor of* Practical Sailor.

Rebuilding foundations

Banishing wet balsa, one stanchion at a time

BY DAN SPURR

When we bought our 1977 Pearson 365 sloop several years ago, the surveyor noted elevated moisture readings around just about every piece of deck hardware, including the lifeline stanchions. He said he could guarantee that every boat this age would have at least similar problems, but that the moisture was sufficiently local for most repairs to be made within the perimeter of the stanchion base. This was good news. I could handle localized deck repairs, but I had no desire to undertake a major repair that would mean removing large areas of the top skin of the deck. Beyond the effort that would entail, it would be difficult to ensure a seamless and attractive end result.

That moisture had not spread much beyond the bolt holes seemed to confirm the results of a much-publicized test that Everett Pearson conducted decades ago. He submerged a balsa-core panel, with holes in it, off his dock in Narragansett Bay for a year. When he pulled up his sample, he measured the extent to which moisture had migrated — something like half an inch.

Although the result of this informal test was promising, it did not justify Pearson Yacht's fastening hardware through the balsa-cored deck. A solid non-hydroscopic material incorporated in the laminate underneath deck hardware not only prevents damage from water seeping in around fasteners, it also better withstands compression loads when bolts are tightened. Today, non-hydroscopic material options for new construction include glass-filled putty, resin, or a fiberglass board like Coosa or Airex PXc.

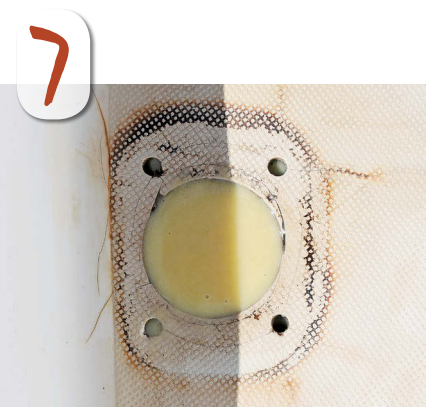
In researching the repair of the core beneath our stanchions, I visited the Gougeon Brothers' forums on the use of their WEST System epoxies. One customer and contributor to the company's *Epoxyworks* newsletter said that, on examining wet balsa core on his boat, he was surprised how stiff it still was. I was soon to discover the same.

To fill the cavity under the stanchion base, I chose WEST System G/flex toughened epoxy, which Gougeon Brothers' technical director, Jeff Wright, assured me would work well. He wrote, "The only downside of using G/flex instead of 105 Resin and 20X Hardener is that G/flex has a lower compression strength, although it is more than likely stronger in compression than the original balsa-cored laminate. G/flex does have the advantage of being tougher, and since it does not appear you will be applying fiberglass over the repair, this will make the repair more durable when the stanchion is loaded and the deck flexes."

One surveyor I consulted before starting the repair suggested possibly using two-part high-density foam to fill the cavity. While expanding foam certainly would fill the void, my experience rebuilding a foam-filled rudder made me well aware of its ability to deform the fiberglass skins. Also, a quality foam repair would require applying a thin layer of fiberglass fabric over the area, which would have to be scarfed in to make it flush with the surrounding deck. There is precious little area to achieve anywhere close to the usually recommended 12:1 ratio of length versus depth for the scarf.

Step by step

1 Stainless steel isn't really stainless, especially in a salt-water environment. The hairline cracks in the gelcoat are probably a result of people pulling on the stanchion when climbing aboard.



2 Though Pearson Yachts erred by drilling through the end-grain balsa core, it did install thick fiberglass backing plates under the deck to help distribute loads.

3 Removing the stanchion base exposed the funky remains of bedding compound and accumulated dirt.

4 A 2¼-inch hole saw removed the top skin of the deck; the pilot bit did not go all the way through the bottom skin. The balsa adhered to the plug was moist but not dripping wet.

5 I used a variety of tools to scrape out the affected balsa: a paint-can opener, a sharp retractable knife, and a pick. The wet core did not extend outside the bolt holes by more than ½ inch.

6 Rather than use the WEST System's standard 105 epoxy system, I selected its "toughened" G/flex, which is already thickened to better adhere to vertical surfaces. The mixing ratio is 1:1 and reaches full cure in 24 hours. I added some 406 Colloidal Silica for a little additional thickening, but not too much, as I wanted the mixture to flow sideways into the cavity.

7 The mixture has a 45-minute work time at 72°F. I filled the cavity until it was flush with the surface. The epoxy is plenty tough enough and impervious to water.

8 I used BoatLife Life Seal caulk to bed the stanchion base in the bolt holes and around the perimeter, using enough so it started to ooze out the sides when I tightened the bolts. To finish the job, I need to polish the metal, remove the deck stains, and fill the hairline gelcoat cracks.

Dan Spurr's bio can be seen on page 21.

A boat named by chance

Engine trouble, sail trouble, a repair stop, and a Celtic goddess

BY ALETHEA WESTOVER

"Lindora?"

"No. I don't like it," said my husband, Erik.

"It's Lincoln's and Isadora's names put together. How can you not like that?"

"We should call it Red Dragon*," 10-year-old Isadora said, her dragon book cradled in her arms at the breakfast table.*

"I don't like any of those!" pouted 7-year-old Lincoln.

"What do you want to call it?" I asked Lincoln, trying to be inclusive, even though clearly nobody had considered the brilliance of Lindora.

"Stormtrooper," *he said, shoveling a spoonful of cereal into his mouth.*

"Ahhh — and there's the winner," Erik said with a laugh as he left the breakfast table.

This discussion about boat names had been going on for weeks. A month before, we'd purchased a beautiful 1980 Tartan 37 that bore the unfortunate name of *Aluffe*. I know, I know. It's a play on the sailing term luffing. It is witty. But said aloud, it was easily confused with "aloof" — like, unfriendly. Like, we aren't going to talk to you if we see you in the harbor. We had to find another name for this boat that fit her and our family. We were having a hard time with it, though, as every suggestion was shot down before it had a chance to gain traction. In the meantime, she was just *The Tartan*.

That morning, we were aboard *The Tartan*, getting ready to drop off Isadora at her first weeklong summer camp, on Orcas Island in the Salish Sea. Considering we had owned *The Tartan* for only a few weeks, we felt quite accomplished: we had taken her from Seattle to Orcas Island — a two-day sail — without any mishaps. The fog was thick that morning, but we had moored near the camp, so we didn't have to deal with it until after our drop-off. After saying our goodbyes, we turned around and headed back to Seattle with Lincoln.

I stood at the helm while Erik went below to turn on our radar for the first time. He soon returned with a frown. "Looks like the radar isn't working. But we have 1 to 2 miles of visibility. We'll just keep the shore in view and head into Friday Harbor to fuel up. It'll clear by then."

A little knot of doubt started in my stomach as I peered into the fog. This didn't look like it would burn off in just an hour or two. But I dismissed the thought. We were on our way home; everything would be fine.

In Friday Harbor, the sun shone brightly and the situation seemed to be improving. Lincoln and I walked to Kings Market to get some chips and magazines while Erik filled the fuel tank and emptied the bilge.

"See how that fog cleared up?" he noted when we returned.

"Perfect day for a sail."

Well, almost perfect. The wind was slack and we had to motor..

"Do you smell diesel?" Erik asked after we were under way.

"It's probably because you just filled up."

Erik nodded.

Thirty minutes after leaving Friday Harbor, we turned a corner to enter the Strait of Juan de Fuca and saw a bank of fog on the water.

"Keep a lookout!" Erik called to me over the motor.

I gave him a thumbs-up and climbed on deck, standing on the bow as we entered the misty brew. I wasn't there for long when Erik called me back. As I took the wheel I could smell diesel. It was strong, too strong to be a few drips after filling up.

Lincoln looked up from his comic book as Erik returned below to look at the engine. "It stinks."

***The Tartan*, above and at right, as she was temporarily known, gave her owners a few lessons in sailing an older and bigger boat before Alethea and Lincoln chanced upon a suitable proper name.**

I agreed, the smell was nauseating. I could hear Erik talking on the phone as he stared at the thrumming motor, while I focused on navigating through the fog using only GPS. When Erik came back up, his face was grim. "We have a small fuel leak, but according to the mechanic we can keep using the motor until we get to Port Townsend, where we can stop and get it repaired."

"How long until we get to Port Townsend?"

"It won't take long." Seeing my furrowed brow he added, "We'll be fine."

Lincoln and I sat on deck, trying to escape the diesel fumes while watching for traffic as we crossed the strait. Gradually, the sun did poke through and a brisk wind began to push the remaining fog from our path. Things were looking up. Lincoln and I snuggled on the deck and kept watch for porpoises or seals that would occasionally swim beside us.

And then the engine stopped.

"It's overheating," Erik yelled. "We'll sail."

Something else amiss? I mentally ticked off the things that had gone wrong this morning: radar, fuel leak, overheating engine. Was our boat falling apart as we sailed it? However, the wind was brisk enough that once we hoisted the stiff sails, we were able to cruise along at 7 to 8 knots, faster than when we were motoring. The sound of the wind and water was beautiful, and with the sun beaming down on us, we soon dismissed our recent troubles as mere hiccups on an overall very successful trip. Indeed, four hours passed uneventfully until we saw land. A weight lifted from my shoulders — we were almost there.

"We are going to sail as close to Port Townsend as we can and then pull in the sails quickly and start the engine. I want to run it as little as possible," said Erik.

I agreed; a new motor was no small purchase.

As we edged closer to Port Townsend at a healthy clip, the 10-knot breeze suddenly began gusting to 20 knots and the boat's heel increased.

"Pull in the sails," barked Erik.

I pulled hard on the headsail furling line. It wouldn't move. "I can't do it!" I yelled, straining.

"Take the helm!" We quickly switched places and he began to tug on the line. It was stuck. Erik ran the line around a nearby winch and it stretched taut and squeaked, but it still didn't budge.

As we sailed rapidly toward the marina, the lee rail dipped into the water. Erik let the sheet go and it snapped in the wind, whipping noisily. Things were happening quickly and I wasn't sure what to do. I kept pointing the boat toward the marina. Lincoln sat near me at the helm, his eyes wide.

"Luff the sails!" Erik yelled. "We'll let down the main."

I turned us into the wind, away from the marina. The jib and its sheet began wildly shaking and the waves tossed the boat like a toy. "I'm going up on deck to pull the sail down," Erik called out. "Start the engine and keep us heading straight into the wind."

The boom was swinging back and forth in the chaos and it seemed like Erik would only be inviting disaster if he stepped on the deck. If he fell over, I didn't feel like I would have enough control over the boat to turn around or maneuver.

"You'll fall!" I yelled. But he was already up on the cabintop, crouching to avoid the boom and trying to steady himself on the rocking deck.

I watched him tug at the main, but it wasn't coming down. The wind pushed the sail into him and I could see the outline of his body.

"Get the engine on!" he yelled. "You need to move faster!" Indeed, the momentum I had a few seconds ago was quickly dissipating and the wind was beginning to turn the boat and once again causing the sails to billow and the boat to heel. There was now too much tension on the sails for him to get them down.

I started the engine with shaky hands and then pushed the throttle forward as far as it would go. With water again passing over the rudder, I regained control at the helm and steered us back into the wind. The sails began to luff once more.

Erik clawed at the mainsail, pulling with everything he had, the wind still occasionally blasting him, threatening to push him over the side of the boat.

"Help me!" he shouted, not taking his eyes from the sail as he tried to keep his balance.

I turned to Lincoln. He'd been enjoying steering the boat throughout the trip and had been quietly watching all the events unfold. Because Erik and I were yelling into the wind, he was a bit nervous, but he slid over and grabbed the helm.

Together, Erik and I pulled the main down and the boat quickly righted herself. Erik jumped down to the cockpit and with tension now off the jib, he was able to winch it back in.

Then Erik took the helm back from Lincoln and we both sat in stunned silence. Lincoln sniffled and rubbed at his eyes.

The shakedown trip (as it turned out to be) had its quieter moments. Erik and Lincoln soaked up some sun, far left, and Lincoln, at left, kept a lookout,

I hugged him. He had been scared; we had all been scared.

Erik and I stared at each other, both of us unsure how things had so quickly unraveled.

As we limped into Port Townsend, our sails spilling out untied, we took stock. The engine was functional but overheating, diesel fuel was still leaking, the radar wasn't working, and our sails were sticking in high-wind situations.

Given the strong diesel fumes below, we spent that night at a hotel in Port Townsend, Erik and I feeling melancholy. Our fun trip had become a humbling experience that exposed us as the keelboat newbies we were. The following morning, we strolled through cute gift shops while the local mechanic called with periodic updates. I overheard snatches of these conversations, learning that the overheated engine was a result of the fan belt, covered in leaking diesel fuel, slipping and failing to turn the water-pump pulley. The diesel leak was the result of an injector head breaking off, an easy fix. As for the sticking sails, we could take care of them with a few adjustments to the jib and a little more lubricant for the mainsail slides.

As Erik again chatted on the phone, Lincoln and I ducked into a small Celtic shop and browsed, my heart not really into shopping. Lincoln was excited at the display of glittery dragons in the window that he thought his sister might like. As he looked on, I made my way to a stand of necklaces and charms. A small sign caught my eye: "Protector of Travelers." I read on. A small charm read, "Nehalennia, the steerswoman, is the Celtic goddess who protects travelers during their lives."

The name *Nehalennia* had a lot in common with our newly acquired sailboat: it was old, strong, and resilient. I realized it was only because we were now getting to know our boat that we could find the name that suited both her and our family.

Our misadventure had been a result of not fully getting to understand the quirks and nuances of our new boat, of not understanding the limitations our own inexperience presented. Erik is an experienced sailor, an accomplished Thistle racer. But Thistles don't have any of the complex systems of a family-sized sailboat. Sure, the fuel leak was something we couldn't have anticipated, but the radar that didn't work, the sticking sails — these things would have been addressed if we had spent as much time getting to know our boat as we had arguing about what to name her.

After making some minor sail adjustments and having an engine part replaced, we sailed *Nehalennia* back to Seattle. Lincoln had a wide grin as he said, "We have such a great story to tell everyone when we get back home." Well, that is definitely one way of looking at it. Erik and I looked forward to taking our sailboat out on shorter sails around Lake Washington for as long as it would take to get to know her, and our sailing selves, a little better.

Alethea Westover and her husband, Erik, live in Seattle, Washington, with their son, Lincoln, and daughter, Isadora. They own a 1980 Tartan 37 named Nehalennia.

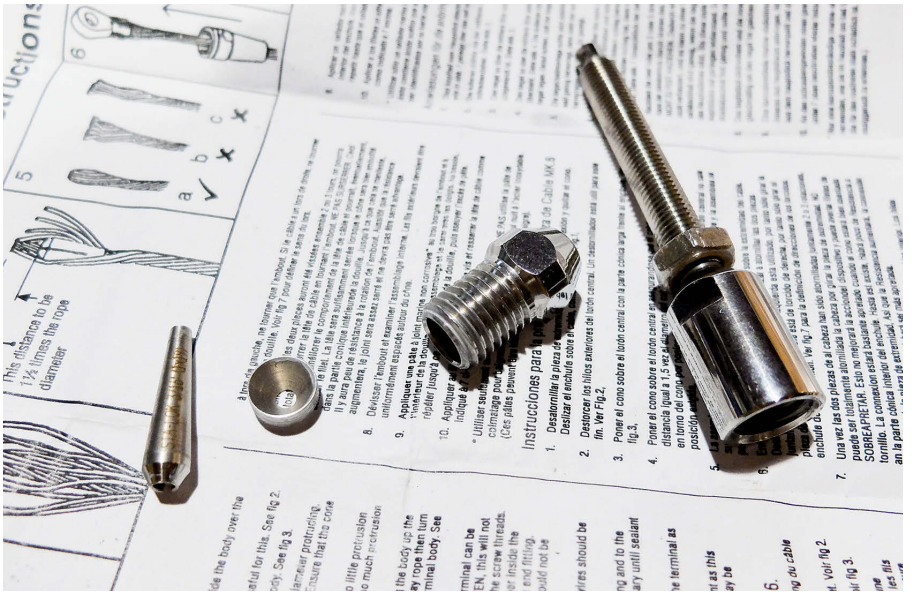
The takeaway —AW

After this adventure, we felt humbled on several fronts; we clearly needed to get to know our boat better and gain more experience sailing her. We did make some positive moves: we shut off the engine as soon as we knew it was overheating, we made a plan for entering the harbor at our destination, and we used our cell phone to call a mechanic for a diagnosis while under way. But we both underestimated the number of potential failure points and what that could mean for our mini cruise. Certainly, in a high-traffic area prone to fog, we should have tested the radar before setting out. Hot summer days in Seattle had lulled us into assuming that fog would not be an issue. If we had practiced reefing this new-to-us boat in high winds, we would have learned that, although the sails came down easily in light wind, they became sticky in stronger winds. Finally, Erik and I could have avoided some of the drama on board if we had discussed beforehand what to do in situations where we were both needed on deck.

Making a new shroud

Swageless terminals were a hands-on sailor's choice

BY CLIFF MOORE



A Sta-Lok swageless compression fitting has four parts, the cone, the cap, the base, and the body, and it pays to read the assembly instructions.

When I purchased *Pelorus*, my Paceship PY26, she had suffered damage to the bow and starboard side during Hurricane Bob in 1991. Among the new things I had to learn in a hurry was how to replace the damaged headstay and starboard upper and lower shrouds. Happily, there was only one of each.

I was told by the usual experts to be found at any boatyard east of the Delaware River that wire rarely fails. Instead, it's the swaged terminal fitting that lets go, usually the one at the lower end of the wire. The reason, I was told, is because the lower fitting is subjected to a lot more salt spray than the upper fitting. This leads to corrosion, including crevice corrosion forming unseen inside the swage fitting, which could let go without warning. It's for this reason that some cruisers carry a length of wire, sized for the longest shroud on their boat, with a terminal already in place on one end and a swageless compression fitting on hand for the other end.

With all this in mind, I had a shop fit swaged eyes on the upper ends of the wires and put Norseman (aka Navtec) swageless fittings on the lower ends. The great advantage with swageless fittings is that they can be opened up and inspected at regular intervals. Every five years or so works for me. Provided the wire hasn't rusted and remains unbroken inside the eye, all it needs is to be tightened up again after inspection. So far, they've held up nicely. A fitting can also be reused as long as the inner cone is replaced.

A few years ago, I replaced the lower fittings on the backstay, leaving the upper swaged eye fitting in place, as it was essentially rust-free. However, from the day I acquired *Pelorus*, I never liked the look of the port-side upper, and this year I replaced it.

I have a hand tool for do-it-yourself swaged fittings. It's somewhat like a handheld, two-piece metal vise. I place the wire and fitting into the correctly sized hole and, with a wrench, tighten a screw on both sides of the hole. The swage has to be made in at least three places, each at 90 degrees from the adjacent one. I've used it for lifelines and halyards but I couldn't bring myself to trust a hand-applied swage on standing rigging, at least not one applied by my hands. I decided to go with a swageless fitting.

For several years now I have been removing my mast for winter storage. It's good policy here in New Jersey, as it reduces the chance of the boat being blown over during a big Nor'easter. It also allows me to inspect every inch of it on the ground and makes repairs easier. Over time, I've replaced the windvane, the masthead lights with LEDs, a burned-out VHF antenna and wire (a Memorial Day lightning strike), all the running rigging, and the heel of the mast.

With the mast on the ground, it was an easy matter to measure the old shroud. All I needed then was the new wire and terminals.

As well as the old turnbuckle, I had a bunch of turnbuckles salvaged from Hurricane Sandy wrecks at my local boatyard. After washing them thoroughly in kerosene, I gave the port upper shroud the longest turnbuckle in the bunch. I bought an eye terminal for the top of the shroud, a stud terminal with the correct thread to match that on the top of the turnbuckle, and a locking nut to go on the stud.

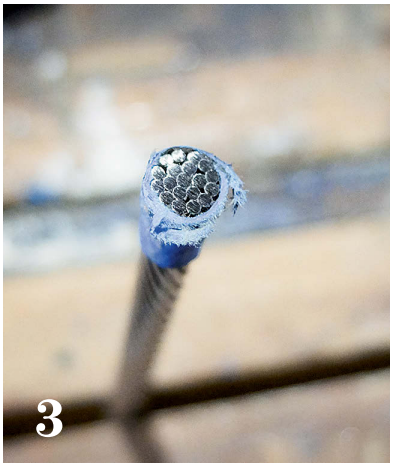
I ordered wire from P2 Marine, which was selling the 3/16-inch stainless steel wire I needed at a huge discount. P2 Marine was also offering Sta-Lok swageless fittings at a decent price, but didn't carry Norseman. I had no particular preference for either brand. They both work about the same way, differing in that the Norseman has three parts and the Sta-Lok has a fourth: a small cap that goes over the cone/wire combination before the fitting is tightened down. This adds one layer of complexity and may be a problem for the ham-fisted.

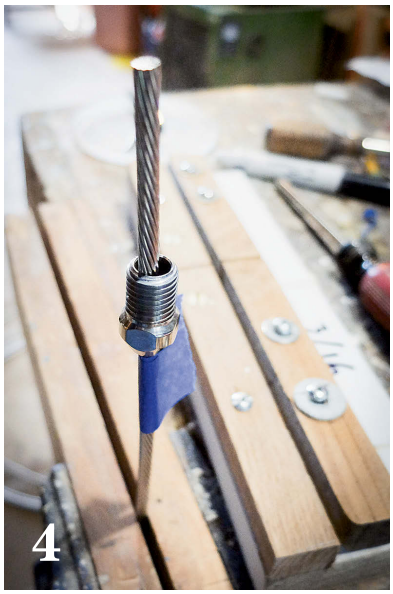
Assembling the fitting

For swageless fittings to work properly, the wire needs to be cut cleanly and evenly, with no ragged ends. Bolt cutters will only mash the ends. A hacksaw with a fine-toothed blade, or even something like a Dremel tool with a diamond blade, is a better choice.

This time, having struggled with cutting wire in the past, I made an adjustable miter vise from scrap wood, purpose-built for cutting rigging wire, *Photo 1*. That took maybe 20 minutes to make. Better yet, I made the miter vise adjustable (the screw holes under the washers are oversized), so I could also cut heavier gauges of wire if need be, *Photo 2*.

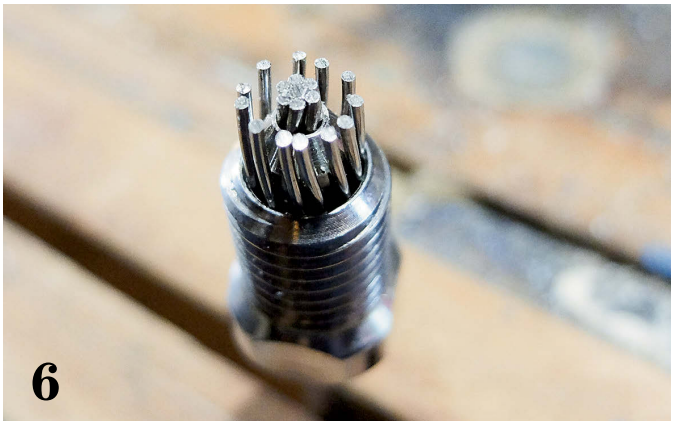
I always wrap the wire at the cut with blue masking tape, but any tape would do. Then, after measuring carefully and marking the cut with a marking pen, I cut it with a hacksaw in the adjustable wire vise. (Cutting even small-diameter stainless steel wire is a fine aerobic workout, but a new blade helps.) I then touched up the cut wire end with a sander. The result, *Photo 3*, was much better than any cut I'd made in the past, when using an ordinary vise.

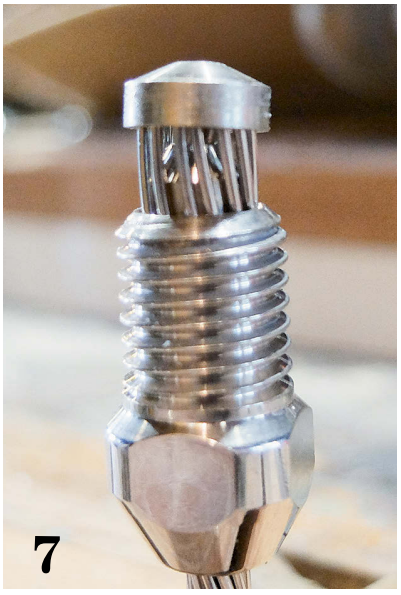


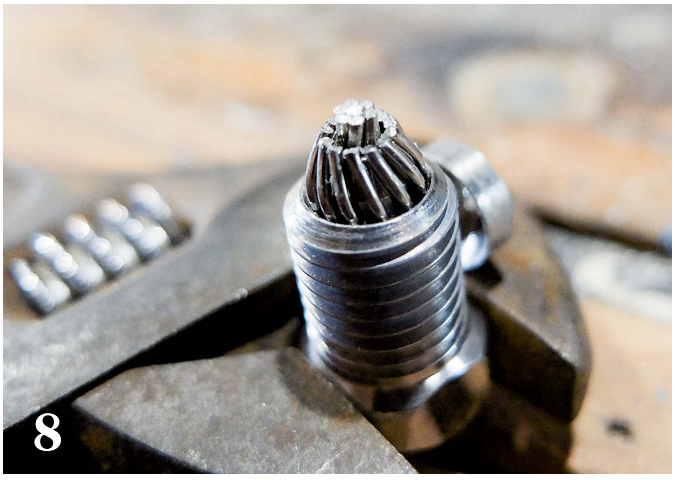


With the wire supported in the vise, I slipped the base of the fitting over it, *Photo 4*, then separated the outer wire strands so I could slip the cone over the inner six strands.

I used a caliper to measure the distance — specified in the assembly instructions — the core strands must extend beyond the cone, *Photo 5*. I then slid the base up over the wires and, using a fingernail, made sure that the strands were evenly spaced and that no strand slipped into the slit in the side of the cone, *Photo 6*.







In the case of the Sta-Lok fitting, a cap covers the ends of the wire strands, *Photo 7*.

As the fitting is ultimately tightened, the outer body compresses the strands, bends them over the end of the cone, and closes the slit in the cone, which grips the core strands ever tighter. Any outer wire caught in the gap would prevent the cone from gripping the inner core properly and would lead to failure.

The fitting should not be over-tightened. After tightening it, I unscrewed it to inspect the strands to make sure that none were distorted and they all lay uniformly around the cone, *Photo 8*. I then reassembled it with a little silicone caulk inside the body (not household silicone, which has acetic acid in it, but marine caulk) to keep water out. I don't recommend adhesive caulk, like 3M 5200, as it won't allow easy disassembly of the fitting. I also used the blue Loctite Threadlocker, as recommended by Sta-Lok, because it can be unthreaded without a torch, unlike the red stuff.

Finishing up

When I was satisfied with my work on the terminals, I fitted the new shroud. I secured it from jumping off the spreader in a seaway by wrapping a soft stainless steel wire keeper around it. To protect the sails against chafe, I covered the spreader tip with a rubber boot held in place with tightly wrapped self-amalgamating tape.

Storing the boat with the mast out gave Cliff easy access to the suspect shroud.

The cost for a swageless fitting is about the same as the cost for having a shop fit a swaged fitting, and assembling one Sta-Lok fitting took me about half an hour. The only tools necessary for this are a hacksaw with a sharp fine-toothed blade, a screwdriver, pliers, and two wrenches, one each to hold the upper and lower parts of the fitting when screwing them together.

Cliff Moore is a Good Old Boat *contributing editor. His first boat was a Kool Cigarettes foam dinghy with no rudder or sail. Many years and many boats later, he's sailing* Pelorus, *a 26-foot AMF Paceship 26 he acquired and rebuilt after Hurricane Bob trashed it in 1991. He is the editor of a community newspaper.*

Resources

Norseman swageless fittings, also sold as Navtec, are no longer available since Navtec closed its US manufacturing facility in 2015. However, many rigging shops still have "a drawer full of cones", so existing fittings can still be reused.

Sta-Lok and Hi-MOD swageless compression fittings are available from a variety of suppliers, including:

C. Sherman Johnson Company www.csjohnson.com

Hayn Marine hayn.com/marine/rigging/himod.html

P2 Marine www.p2marine.com

Rigging Only www.riggingandhardware.com

Sailing Services www.sailingservices.com

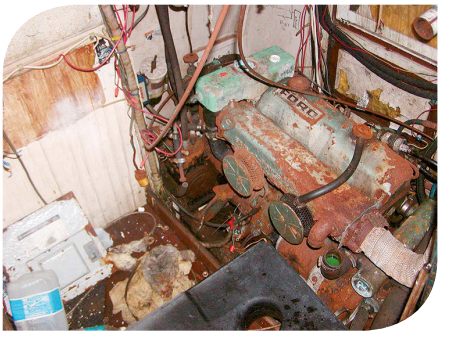
Sta-Lok www.stalok.com

See also
"Where There Is No Rigger, Part 2," *Good Old Boat*, September 2011.

From abandoned

A Vagabond 47 gets a multi-year makeover

BY JIM HONERCAMP



Almost 40 years ago, walking the docks at Shilshole Bay Marina in Seattle, I came across a new Vagabond 47 ketch. It was love at first sight. She was the most beautiful sailboat I had ever laid my eyes on.

Thirty years later, I happened, quite by chance, upon a derelict Vagabond 47 ketch in Tampa Bay, Florida, moored to a dock at Tierra Verde Marina just south of Boca Ciega Bay. She was an absolute garbage heap. Junk was piled high on her battered and broken teak decks, her sails were shredded, and dozens of tattered and tangled lines ran chaotically across deck and dock from cleat to winch to rail. Her hull was scraped and discolored and her bottom was a jungle of seaweed and barnacles. But she was beautiful! I committed myself to finding out more about this severely neglected vessel with the ultimate intention of buying her.

Months later, when business brought me back to the Tampa Bay area, I arranged to drive back to Tierra Verde and check out the boat I'd not been able to shake from my mind.

She sat moored in the same spot. She was still a mess. Garbage was still strewn all over her deck. Two air conditioning window units sat rusting on her deckhouse and broken teak decking was peeling from the fiberglass substrate all around me. She smelled of rotten fish and stale oil. The fumes from an unthinkably nasty bilge stew filled the cabin. Old gas cans, dead batteries, and loose wires were everywhere. But she felt solid.

The marina manager had warned me that homeless people occasionally used the boat, and scattered around the master's cabin was ample evidence in the form of food wrappers, cigarette butts, and various items of very dirty male and female clothing. The heads were disgusting and the engine was a pile of rust.

After a long and hard look and a fair amount of soul-searching, I decided that I wanted to make her owner an offer. On August 8, 2008, I wrote a check for $6,000 and took possession of *Mechaya*, my 1975 Vagabond 47.

Gutting and stripping

My cousin Larry lives in the Tampa area and (only after first suggesting that we put a few bullet holes in the hull and make a reef out of her) helped me to remove anything and everything that could be taken off the boat and thrown into a Dumpster.

After this initial purging, I had the boat towed across Boca Ciega Bay and lifted out of the water at Maximo Marina, where I cut up the rotten wooden masts with a chain saw. Two days later, she was loaded on a lowboy trailer and trucked to Cincinnati.

Although *Mechaya*, as she was then named, was long neglected, her beauty shone through for Jim, top left. The rusted engine was just part of the grim story belowdecks, upper right. After gutting the interior, Jim began the rebuild with bulkheads and tanks, lower right.

to brand-new

Fully fitted out and with her new masts, and having already made a round trip from Alabama to Ohio without her mainmast, *Perfect Love* is ready for new adventures, at top. The finished saloon is stylishly modern but suits the boat well, above. The view along the passageway to the aft stateroom reveals some intricate joinerwork, above right. In the head, designer Jim and joiner Dan found imaginative ways to express themselves, at right.

With a temporary cabin sole in place, at left, work began on the furniture. Dan contributed clever touches with his joinerwork, at right.

After assuring my friends and family that I had not completely lost my mind, I got to work, and dug in with a destructive enthusiasm. Cabinetry, bulkheads, hoses, pipes, electric wires, rusted steel compression posts, fuel and water tanks, engine, bronze seacocks, teak decking, chainplates, and worthless deck fittings all yielded to the mighty chain saw, crowbar, and the grinder's cutting wheel.

In a seven-month rampage, I reduced the interior to an empty shell, and ground the entire inside surface down to bare glass. I also stripped the deck of hardware, removed all traces of teak decking, and drilled, filled, and sanded all the screw holes. Stripping the teak from the deck, I looked carefully for any soft spots. Fortunately, there were none; she was indeed solid. I also removed the teak caprails and rubrails and sandblasted the hull and deck to remove all the gelcoat.

During the course of this demolition, I had to hire a hazardous-materials removal service to pump out the slime in the bilge. I then spread 400 pounds of kitty litter in the empty bilge and let it sit for several days before shoveling it out. It took several months for the odor to dissipate.

The reincarnation (and spending like a drunken sailor) was about to begin.

Reconstruction

The clipper bow and hour-glass transom typical of many Taiwanese-built cruisers designed in the 1960s and '70s stir my imagination. I love salty-looking boats, but I am not a fan of the dark teak and mahogany interiors common to most of these "leaky teakies." My vision of a traditional exterior and a modern light and open interior guided the rebuild.

The Vagabond 47 is a heavily built cruiser. The solid glass hull is almost 2 inches thick at the waterline, and I wanted to stay true to this "build heavy" philosophy. After all, the boat was going to be my full-time home. As such, I wanted her to be safe, functional, and comfortable; she would be rebuilt like a battleship. That said, precious little technical information was available for the Vagabond 47. I had to start from scratch. Before I began the reconstruction, using Visio and PowerPoint, I created design drawings for the interior layout, the fuel and water plumbing systems, and the electrical systems.

I ordered new masts from JSI in St Petersburg, Florida, and while the new aluminum fuel tanks and stainless steel water tanks were being fabricated, set in place a new Beta Marine 105-horsepower engine and a Kubota DC generator.

Jim found a special place for a stained-glass piece his sister Kathy made for him.

To make the new bulkheads, I glued and screwed together two ¾-inch marine-grade plywood sheets with the grains perpendicular. I tabbed them to the hull using five alternating layers of heavy woven roving and chopped-strand mat, screwed the tabbing to the plywood with stainless steel screws every 6 inches on both sides, and laid a final layer of woven roving over the screws.

The main bulkhead on my Vagabond 47 is located just aft of the companionway ladder. In the original design, it had a door leading to the master cabin on the starboard side but was solid on the port side, serving as a galley wall. I wanted to open up both sides as much as possible, so I had to devise a way to provide the necessary strength while significantly cutting back the bulkhead on both the port and starboard sides. My solution was a heavy steel cage consisting of four legs positioned directly under each corner of the cockpit sole and glassed to the hull and sole. This cage frames the engine room, and mid-frame supports bolted to the legs provide plenty of strength to support the generator sitting above the engine.

The interior work became much easier after the water and fuel tanks were installed, the sole stringers were in position, and I'd laid down a temporary plywood cabin sole. I was now able to work from a flat surface throughout the boat.

Cutting day for the bow-thruster housing brought on a case of nerves for Jim, at left. A ketch rig uses a lot of chainplates, at right. Pre-measured and precut synthetic teak decking was the solution to what could have been a major undertaking, below.

Help wanted

By this time, I was four years into this massive project, pretty much working alone and only on the weekends, and not getting any younger. The boat was on the hard and my knees were telling me that I had already climbed Mount Everest, 12 steps at a time. I had to accelerate the pace. Besides, the upcoming tasks required a skill set I did not possess. I began to look for help, and a highly skilled woodworker was at the very top of the list.

After two false starts, I found my man Dan, an absolute artist with wood. He took my design concepts, added his artistic flair, and brought them to life in ash and teak. I did all the easy-to-medium carpentry work, such as installing the tongue-and-groove ash ceiling on the exposed hull. Dan did all the fine joinery. His eye for detail is incredible.

I also enlisted the help of my sister Kathy, who many years ago had made a stained-glass crescent moon for me. It hung in my home for almost 40 years, so creating a place for it somewhere in the boat was an absolute must. After Kathy made a few modifications to the glass, we were able to place it in a rigid frame in the main head; the result is quite nice. Kathy also varnished (three coats) every piece of wood in the interior of the boat before it was permanently installed. She used more than 14 gallons of varnish.

Alex, a builder of custom guitars and an accomplished airbrush artist, joined the team as my expert painter.

When asked why he wanted the job, Alex stated that he needed to add a "big piece" to his portfolio. He certainly found one! Alex eventually hand-rolled three coats of primer on the entire boat, four coats of Interlux Perfection on the deck and hull above the waterline, and five coats of barrier paint below the waterline. He also hand-sanded each surface between coats.

For the next four years, the four of us worked as a team, part-time, with occasional help from other folks, slowly building out a beautiful interior and re-creating the exterior. We had good days and bad days, progress and setbacks, as we labored through the southern Ohio seasons.

The day we began the installation of the bow thruster was particularly nerve-wracking. The thought of cutting two 10-inch holes in the bow of my boat did not sit well with me. As the bit began to bite, I felt a queaziness bordering on nausea. The installation actually went very smoothly. A few years later, I find it extremely convenient to be able to kick around that big bow and its 12-foot reinforced-aluminum battering ram of a bowsprit with the nudge of a joystick mounted on the steering pedestal.

Low-maintenance deck

Eventually, my focus shifted to the deck and everything that attached to it. I was faced with a conundrum: I love the look of a well-kept teak deck but, after almost eight years of hard labor, I was not going to spend a single minute sanding and varnishing exposed teak when I was supposed to be cruising. Caprails, rubrails, pulpit decking, hatch frames, and the decking itself all had to be made of a maintenance-free synthetic that actually looked like weathered teak. After researching at least half a dozen products, I chose PlasDECK out of Copley, Ohio, for the decking. For the caprails and rubrails I chose Wilks out of Essex, England.

Measuring the deck was a precise process and interesting to watch. At the center of the area being measured, a technician placed a laptop computer with a stylus attached to it by a wire. He would stretch the stylus to the very outer edge of the area and click a button on the stylus, then move 3 inches farther along the area perimeter and repeat the touch and click. Eventually, he clicked around the entire area. He repeated the process for each area of the deck, deckhouse, and cockpit that was to be covered with PlasDECK.

***Perfect Love*'s aft cabin has regained its status as the master stateroom, at left. The galley, at right, is practical and stylish.**

This touch-and-click process yielded a digital file from which a computer numerically controlled (CNC) machine cut a Mylar template, which was brought to the boat and fitted. The technician marked variations to the fit on the template, which was then used as the surface for another touch-and-click process, which led to a final file from which the actual decking material was cut. The pieces were heat-welded together and the final product was delivered as sheet goods and installed like a linoleum floor, glued to the raw fiberglass deck with a mastic. The fit was perfect, and the end result is beautiful and maintenance-free. We installed cleats, line organizers, over-the-top blocks, handrails, and various other pieces of deck hardware once the decking was down.

In search of warmth

Wanting to avoid another Ohio winter, in mid-November 2016, we trucked the boat from Cincinnati to Turner Marine on the Dog River in Mobile, Alabama. The new masts had been shipped to Turner from St. Petersburg several months earlier. Our plan was to complete the boat, step the masts, and then head south from Mobile with enough time to make our way around Florida and up the East Coast to a higher latitude before hurricane season.

I told my wife, Shirley, that we would be on the hard for about two weeks before the boat went into the water, and that it would take approximately one more month of work before we could set sail.

What was I thinking? The bimini and dodger had to be fabricated. The electronics had to be installed. The bow pulpit, davits, pushpit, and hardtop frame had to be fabricated and mounted. The heads had to be installed. The lifelines had to be installed. The air conditioning units had to be brought online. The list went on and on. It began to feel like whack-a-mole; just as soon as I knocked down one task, two or three more would pop up.

We had to align the engine and add all of the fluids for the engine and generator before either could be tested. When attempting to align the engine, we discovered that the new stern tube, which had been installed several years earlier, was cocked ever so slightly, but enough to prevent the engine aligning properly with the drive shaft. Subsequently, the boat had to go back on the hard and the rudder dropped so the stern tube could be pulled and reinstalled.

We ended up living on the hard for four long months; Shirley is an absolute saint and a real trouper!

New adventure, new name

On March 14, 2017, we held a christening ceremony. We asked Poseidon to expunge for all time the name *Mechaya* from his records and recollection. We

then renamed the boat *Perfect Love*, and after Shirley broke a bottle of champagne on the bow, *Perfect Love* was placed gently in the water and we began our life afloat. On May 26, 2017, *Perfect Love* moved away from the dock under her own power for the first time in over 15 years.

Reflection

This undertaking has been a wonderfully rewarding experience. That said, I will freely admit that, more than once, I gave serious thought to changing the name of the boat to something like *Perseverance*, or *Purgatory*. I confess that, occasionally, I caught myself doing loser's calculus; wondering if I would get 30 cents on the dollar if I sold her right now. Once or twice I questioned my sanity; have I made a huge financial blunder; am I the fool on the hill?

But the dream of adventure and freedom, the dream of life on a big beautiful sailboat, always helped me to stay the course.

A project of this magnitude cannot be done alone. Throughout this endeavor I have been blessed with the encouragement, support, and help of many good friends and my entire family. Several times along the way, my children, my brothers and sisters, and my nieces and nephews joined me at the boat for cold beer, burgers, and hot dogs in exchange for encouragement. My 90-year-old parents even came down twice — a Bobcat lifted them onto the deck. It has been fun, but the real ride is about to begin.

Jim Honerkamp discovered as a college freshman that it was easy to get a date by asking a girl to go sailing; he has been an avid sailor ever since. Over the years, he has owned five sailboats, three of which were restoration projects. Shirley, his wife, gave up her Harley Davidson Softail Deluxe after she fell in love with sailing while living aboard an Island Packet 35. Jim and Shirley met four years ago, got married at the 2016 Miami International Boat Show, and moved aboard Perfect Love *in November 2016. They maintain a cruising blog: perfectlovev47.wixsite.com/perfectlove.*

Resources

Masts
JSI is now Island Nautical
islandnautical.com

Synthetic teak decking
PlasDECK
www.plasdeck.com

Synthetic teak profiles for caprails, rubrails, etc.
Wilks
www.wilks.co.uk/marine

Air conditioning

Where the climate insists, a built-in system pays dividends

BY DREW FRYE

Summers on the Chesapeake are hot and humid, so we thought we were in high clover when our new-to-us boat came with a portable 6,700-BTU Cruisair air conditioning (AC) unit . . . until we lived with it. It was undersized, cooled the boat unevenly, and dripped condensate. As for being portable, manhandling that 70-pound beast down the companionway was no picnic. Though dependable and well-engineered, it had to go. To replace it, we selected the 10,000-BTU Dometic Turbo, an integrated AC system.

Chandlery catalogs pitch that a handy individual should be able to install an integrated AC system aboard a boat in a day. That could be true if the boat has a convenient cabinet to house the unit and running the ductwork is straightforward. Our installation, though, required long hours of measuring, planning, and fabricating sundry bits and pieces to make it all fit together, not to mention moderate boat yoga.

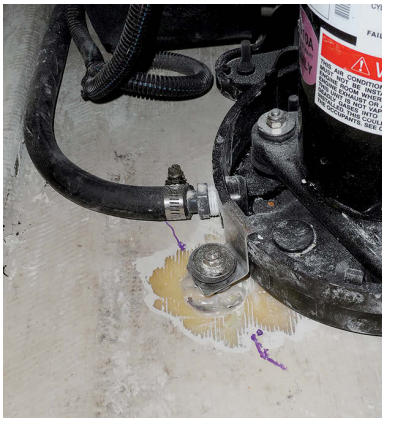
Anyone with a good DIY skill set who adheres to the critical installation parameters and takes time to plan the project carefully should be capable of making a first-rate installation. A professional installation is a good alternative for a boat owner who's a little intimidated by such a project, and this article provides basic guidelines to follow to ensure the job is done properly and not rushed by a contractor pushing to get the job done in a profitable timeframe.

Although kits are available for basic installations, we went à la carte for the installation bits in order to get an exact fit. Dometic's factory manuals provided good instructions, and its very accessible engineering department supplied additional detail where the manual was lacking.

Getting Started

After deciding that installing AC is going to be truly beneficial, the first step in making it happen is to decide on the needed capacity of the unit. Manufacturers provide standard formulas to use in choosing the correct unit size (measured in BTUs). These formulas allow limited inputs, such as the area to be cooled, but cannot account for the areas of non-standard windows, differences in hull construction, or insulation details.

The cooling water enters through the seacock, top left. The tee allows the cooling-water system to be winterized with antifreeze. Next in line is the strainer, middle left. The valve on the discharge side is for isolating the strainer for cleaning. Without it, the AC system would drain into the bilge. Drew bolted the water pump to a bracket he fabricated and bonded to the hull, at left. The fitting cable-tied to the hose is a hose barb used for winterizing.



Every cooling-water hose between the seacock and the AC unit slants uphill to eliminate pockets of air or water, above. In waters with a lot of weed or jellyfish, the strainer must be cleaned regularly, above right, to allow the cooling water to flow freely. Drew installed the cooling-water discharge several inches above the waterline in the port hull under the bridge deck, near right. If through-bolts are impractical for securing the A/C unit, glue-on studs from Duckworks are a very handy way to secure hardware, far right.

However, with an electric space heater and a few hours' observation, it's easy to calculate real numbers based on your boat (see "Using Heat to Calculate Cold," page 38). Compare the unit size estimated by this test against advice provided by the vendor.

An AC unit, even a small one, is going to take up a fairly large space, and that will determine to a large extent where it can go. Other factors are the need to run ducting, for cold air and for return air. The unit will also need a supply of cooling water, which will also need to be discharged, and a means to dispose of the condensate.

Cooling water

The cooling-water supply, especially, has to be carefully thought out. First, it requires a through-hull and seacock, which can only be installed when the boat is out of the water (see "Adapting to Flanged Seacocks," November 2009, and "Storage with Benefits," November 2016). This requires some forward planning, as the location of the seacock will be determined to some extent by the location of the AC unit and by the need for ease of access for servicing the strainer that's next in line.

If the AC is to be used under way, the through-hull must be low enough in the hull that it doesn't aerate when the boat heels. Installing the through-hull well below the waterline where sunshine can't reach it also reduces the growth of fouling. Fitting an external screen will help keep out marine creatures or grass.

A pump is needed to deliver the cooling water. Follow the AC manufacturer's guidance on pump sizing (which will also determine the size of the through-hull). Although bigger might seem better, Dometic engineers advised that oversized pumps cause premature failure due to accelerated abrasive wear to the cooling coil.

The type of pump most commonly used to deliver cooling water is the centrifugal pump. This pump is not self-priming, and pushes better than it pulls. It should be mounted at least 12 inches below the waterline, and the hoses from through-hull to strainer, from strainer to pump, and from the pump to the AC unit must run slightly uphill, with no sags or loops that could trap air and prevent the pump from recovering its prime should it swallow air while under way.

The hose between the pump and the strainer should be as short as practicable but with a straight run of at least 10 inches to smooth out the flow entering the pump. This hose should be wire-reinforced, because it is under suction. The rest of the run can be heater hose.

Make sure the strainer is easy to reach for cleaning. It should be checked weekly anyway, but in areas with lots of jellyfish or weeds, it might need to be cleaned several times a day. A hissing sound is a symptom of pump cavitation due to a clogged strainer. A serious blockage will result in decreased cooling performance, increased current draw, and possibly a system shutdown due to thermal overload or high pressure.

Ideally, the seacock would be located in a compartment with a convenient bulkhead for mounting the strainer and pump. But this is a boat project . . . so we use what we have. On our boat, there was no bulkhead handy to through-bolt to, so I bonded a fiberglass mounting plate with embedded bolts to the bulkhead (see "Through with Through-Bolts?," March 2016). Because I wanted the flexibility to replace a failed pump with any other brand or size if need be, I built a simple stand from fiberglass scraps, bonded that to the hull, and bolted the pump to the stand. The pump has vibration

Drew's AC unit was a tight fit under the saloon seat, far left, but there is room to pull it out through the next seat. He mounted this rotatable outlet where it can direct air into the starboard hull or into the saloon, at left.

isolators (rubber grommets) on the feet that prevent the nuts from being drawn up tightly. The solution is to use either double nuts or elastic stop (nyloc) nuts.

The cooling water enters the bottom of the AC unit, rises through the coil, and exits from the top, ensuring that air is continuously flushed from the system. It must then be directed overboard. This is best done via a through-hull above the waterline, sufficiently high that it won't become immersed if the boat winters in the water but not so high that the sound of discharging water becomes annoying when the AC is in use. Because it's above the waterline, a seacock here is optional.

The condensate draining from the bottom of the AC unit must flow downhill by gravity — and must not be able to flow back when the boat is heeled. While it might be tempting to tee it into a cockpit drain or a sink drain, the safest way to discharge the condensate is to direct it into a shower sump or into its own sump with an automatic pump. This, too, will need its own discharge through-hull above the waterline, but it can be smaller than that for the cooling-water discharge.

For winterizing, install a tee and a valve at the suction through-hull so that antifreeze can be sucked through the unit (and back-flowed into the seacock if the boat is to spend northern winters in the water).

Using heat to calculate cold

A typical 1,500-watt space heater delivers 5,150 BTUs when set on high. Run the heater to create a stable temperature differential (10 to 30 degrees) between inside and outside. The required air conditioner capacity is then:

$$BTU = \frac{HW \times 10\,(OT\ max - IT)}{(test\ IT - test\ OT)}$$

Where
HW = heater watts
OT max = maximum outside temperature
IT = desired inside temperature
test IT = test interior temperature
test OT = test outside temperature

A similar calculation can be used to size heaters:

$$BTU = \frac{HW \times 5\,(OT\ max - IT)}{(test\ IT - test\ OT)}$$

The difference in multipliers is to compensate for solar heat gain. Over-sizing air conditioners can result in poor dehumidification and icing. Over-sizing heaters results in short cycling.

AC unit location

Plumbing and duct requirements often determine where the unit can be placed. We selected an under-seat locker in the saloon, but no matter which locker we chose, reinforcement bulkheads complicated the duct routing.

The unit must be secured to a level platform. It rests on vibration isolators and is secured by four hold-down hooks with integral vibration isolators. Because the saloon on our boat, *Shoal Survivor*, is on the bridge deck, through-bolts would protrude outside, so I used glue-on studs from Duckworks Boat Builders Supply instead. They are easy to affix by grinding a clean spot, degreasing and scuffing the stud base, and placing the stud in a lump of thickened epoxy, allowing the epoxy to ooze up, around, and through the holes. Although pullout strength is limited to the quality of the bond (my tests showed it to be about 900 pounds in tension vs. the 1,750-pound breaking strength of a ¼-inch bolt), I feel that four bolts is conservative for a 47-pound unit. Additional hold-down hooks can be used if needed.

Ducting

Because cold air sinks and warm air rises, the goal is to inject the cold air as high as possible to ensure good mixing, and place the returns as low as practical. The total vent area must meet the manufacturer's minimum specification. A minimum velocity of 400 feet per minute is recommended to ensure good mixing; do not exceed twice the

Drew cut the mounting holes for the rotatable outlets with a 4½-inch hole saw and they allowed the duct and clamp to just barely fit through, near right. A fan mounted nearby helps direct the cold air where it's needed most. Plastic floor grates work well as return-air grilles, far right upper. Removing the damper increases flow. Drew placed one return-air grille where it would draw cool air over the inverter, far right lower, which gets warm when under high loads.

manufacturer-recommended minimum cold-vent area. (When using round vents, remember that the area is proportional to the *square* of the diameter: a 6-inch vent has *four times* the area of a 3-inch vent.)

Return as much warm air as possible from the cabin and avoid drawing from the bilge, and especially engine spaces, to reduce the risk of drawing in odors or carbon monoxide. I located two returns at the forward end of the saloon and one near the inverter, because it gets warm and can benefit from the additional airflow when the AC is running hard.

Balancing the flow between outlets is best accomplished gradually, by matching duct sizes to the register diameters to avoid the abrupt "whistle" point that a damper can sometimes create. The flow does not need to be completely uniform. If an outlet is located near a cabin fan, the fan can be operated at low speed to move air, like a ceiling fan. That said, I still like the adjustable, rotatable Webasto vents; they make it easy to redirect flow away from that one person who is always freezing.

Try to make space for insulated ducts. A 10-foot uninsulated duct run in a hot area can lose as much as 20 percent of the cooling output, as compared to 3 to 5 percent with R-6 insulation. Ducts that are not insulated may also sweat and drip. (Ducts can be made of plywood, which itself provides some insulation; see "Time to Chill," May 2016.)

In humid regions, even with sealing and insulation, ducts running through unconditioned spaces are at risk of damp and mold. The solution is to locate the ducts in partially dehumidified areas, such as lockers that are ventilated into the cabin. These areas do not need to be cooled, only provided with a tiny portion of cabin return airflow, and even slight inward leakage is generally enough. Minor flow through lockers containing ducts can prevent problems and keep the locker contents dry.

Controls

The temperature sensor must be mounted in the return airflow (that is what the AC unit processes). The touch-screen control panel can be anywhere; we chose a location at the nav station, next to the breakers.

Principal parts and prices

The prices quoted are Drew's costs. Since he installed his AC system, the Dometic AC units, pump, and panel have undergone design changes. Prices of some of the components listed here may have changed.

Item	Price each
AC unit	
Dometic Turbo DTU10, 10,000 BTU	$2,200
AC accessories	
Dometic PML500, 500 gph water pump	$650
Dometic SmartTouch Marine Control Panel with bezel	$300
Strainer	
Groco ARG-750-P, ¾-inch	$127
Seacock	
Forespar Marelon 904010, ¾-inch NPS	$50
Insulated flexible duct	
R6 4 inches x 25 feet (Home Depot)	$26
Registers and vents	
4 x 12-inch plastic floor registers (Home Depot) (2 used)	$13
Webasto 4-inch rotatable vents (5 used)	$13
Glue-on mounting studs	
K900110 (Duckworksbbs.com)	$3
Foam insulation sheet	
K-Flex, 36 x 48 inches (Grainger.com)	$28

Dometic engineering approved Drew's attaching the junction box to the underside of the hinged seat, at left, where it is close to the AC unit and easy for him to access. With the AC installation complete and wired, Drew could combat Chesapeake Bay summer heat and humidity at the touch of a keypad, below.

Power

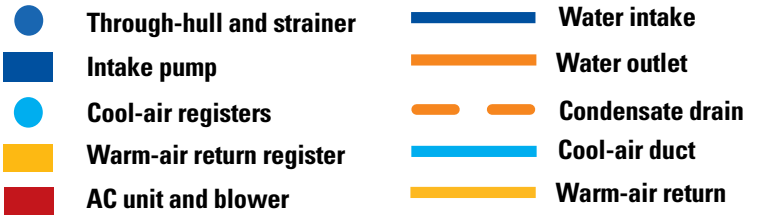
The AC unit must have its own circuit breaker. The Dometic Turbo allows the water pump to be powered and controlled through a combined junction box by landing the wires on terminals provided. Although our 120VAC distribution panel was full, we were able to free up a 20-amp breaker by combining two very conservatively fused circuits.

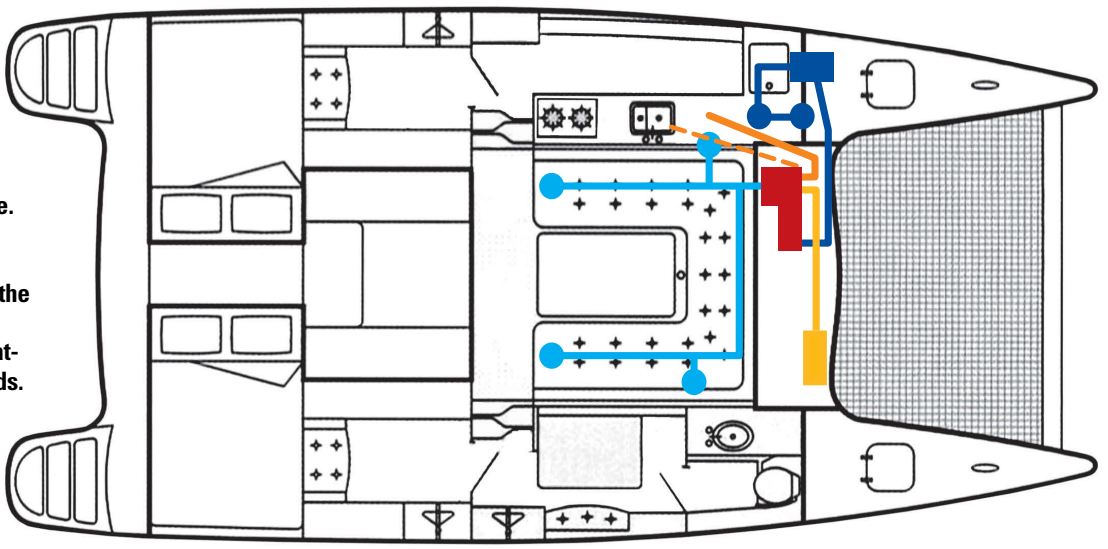
Breakers are labeled with their size but are often impossible to read. Reaching into the panel with a camera or cell phone solved the problem for us (power off!). The manufacturer will state minimum and maximum breaker limits.

Wiring

Undersized wire leads to voltage drop and inefficient operation, and will generally reduce the unit's life. USCG regulations permit either tinned marine wire, SAE wire, or THHN machine wire, although there is a strong preference for tinned wire in damp locations. All connections should be made with either captive fork or, better, ring fittings installed

Schematic for *Shoal Survivor*'s air conditioning system





Notes: The water intake is 10 inches below the waterline. The water and condensate outlets are 8 inches above the waterline. Cool-air registers are on seat-backs and bulkheads.

using ratchet crimpers. Adhesive-lined heat-shrink connectors are preferred in damp locations.

To avoid both shock and serious galvanic corrosion, the AC system must be grounded in accordance with the American Boat & Yacht Council (ABYC) standard, which basically says it can be grounded in one place only; either through the shorepower connector or through a properly installed galvanic isolating transformer. Ground fault interrupt (GFI) protection may be provided through an inverter or isolation transformer. Anyone the least bit hesitant about working with 120VAC electrical wiring should consult with an ABYC-certified marine electrician to ensure that the installation meets safety and insurance standards.

Commissioning

The AC unit dropped right in on the mounting studs. I attached the hoses with clamps, landed the wires on the terminal block, bolted the blower outlet to the ductwork, and then walked over to the panel and turned it on. It simply ran, just as it has since. We clean the strainer about every five days in heavy weed, but otherwise only a few times a season, and that's just to be safe. I check the air filter in the spring.

The under-seat location turned out to be very quiet; the cushions absorb any noise moving vertically, the massive carbon fiber beam deflects much of the horizontal component away from living areas, and insulated ducts absorb blower noise. The low rumble of the compressor remains, but the average 52-dB sound level does not impinge on either conversation or movies, compared to the more intrusive 66 dB of the portable unit. Although the installation took some time, no specific step was very difficult, and the look is factory. Realistically, it was no more trouble than a few years of horsing the portable unit around. My aging back loves it.

Drew Frye, a Good Old Boat *contributing editor, cruises Chesapeake Bay and the mid-Atlantic coast, until recently aboard his 34-foot catamaran* Shoal Survivor. *Last year, he went up a hull, and now sails his Corsair F24 trimaran. A chemical engineer by training, and a 40-year climber and 30-year sailor by inclination, he brings a mix of experiences to solving boating problems and writing about them.*

Duct details

–DF

Transition pieces

Flexible ducts are great for routing air to outlets, and various splitters and adaptors are available. Sometimes, nothing standard quite suits when dealing with a boat interior. In our case, the front and rear halves of the catamaran are separated by a 14-inch carbon fiber beam running across the saloon, leaving only a 1½-inch gap for hoses and ducts to pass through. I can imagine encountering similar obstructions on almost any boat. My solution was to build 2-part transition ducts that could squeeze through the gap while still providing sufficient flow area. These can be made from any thin flat material, although PVC and fiberglass will sweat less than metal (I used 0.09-inch fiberglass tub-surround paneling), and the parts can be glued together with a high-strength polyurethane such as 3M 5200 or Sikaflex 291.

Insulation

When attaching flexible ducts to fittings, pull the duct insulation back about 6 inches and attach the inner duct to the fitting with a clamp and several short screws (the clamp may slip on some fittings). Pull the ducts tight enough to minimize sagging. Reinforcing the end of the duct with a duct tape cuff can be helpful and provides some insulation.

Use duct tape also to seal the outer insulation jacket to the inner duct. This will prevent moisture from getting between the two, wetting the insulation and allowing mold to grow.

Insulate all the transition pieces as well. I found ½-inch closed-cell EPDM or neoprene foam to be effective and easy to work with. They come in plain and self-adhering versions. The self-adhering versions typically grab so tightly that repositioning the foam will destroy it. The plain version can be attached with either the recommended Armaflex 520 BLV adhesive, available at Home Depot, or with ordinary contact cement. I found that installing the foam while the cement was still slightly damp helped with required repositioning in tight places. Where space is limited, ⅛ x 2-inch Armacell tape, also available at Home Depot, is sufficient to stop sweating.

Drew found that plastic 4-inch clothes-dryer draft preventers made handy, inexpensive flanged adaptors for attaching flexible ducting to his transition pieces.

For want of a survey

Two boys buy a big wooden boat with their hearts, not their heads

BY FRANK FARWELL

Frank and his friend Scott were able to obtain a temporary mooring for *Hobart* in Chicago Harbor, but one of them had to row out to her every day after work to pump her dry and keep her afloat, at top. Leaking steadily, the boys' bargain wooden dream-boat closes in on Chicago Harbor on her drama-filled maiden voyage, above.

On a warm June evening in 1969, my friends Scott and David drove with me from the Chicago suburbs to Michigan City, Indiana, to buy *Hobart*, a lovely 1940s-era, 26-foot Rhodes Idler sloop that was, in retrospect, suspiciously low-priced. The seller, Ed, was asking $4,000. *Hobart* was a beautiful boat, but a wooden boat well into her third decade. We were 18, and too excited about owning her to arrange a survey.

Just before sunset, Ed showed us *Hobart* at her slip, no doubt marveling at our wide-eyed naiveté. He then took us out for a $4-a-plate fried chicken dinner. After the meal, Scott and I each handed over a $2,000 check, and then the three of us slept on the boat, firmly believing that our dream was coming true. We planned to rename the boat *Eureka*.

The next morning, we cast off for Chicago. It should have been an easy daysail to the west-northwest across Lake Michigan. Nearly out of sight of land and approximately 15 miles north of the steel mills of Gary, Indiana, we were happily lounging in the cockpit with *Hobart* making about 3 knots in a dying southerly breeze. Scott headed below for suntan oil, and a few seconds later our lives as wooden-boat owners were forever changed.

"Geesus, we're sinking!" came the startled yell from the small cabin.

David and I roused ourselves from our naps and peered through the companionway. Sure enough, the floorboards were awash. I tried to start the engine to support the battery to run the bilge pump, but the engine was dead, and so was the electric pump. We had no life raft, no dinghy, and no radio.

There ensued a frantic bucket brigade, with one of us bailing from the cabin and handing the bucket up through the companionway, one tossing the bucket's contents over the side, and the other steering. The wind stayed between 3 and 8 knots, and much later that day we maneuvered *Hobart* into Chicago's huge Monroe Harbor considerably more seasoned than when we had cast off from Michigan City that morning.

In the vast overconfidence of youth, we had planned on renting a slip on arrival. Alas, we found out, some Chicago-area boat owners had been on the waiting list for a slip or mooring for 10 years or more.

So we ghosted, engineless, to a transient pier, and were just putting out fenders when a street fight began to take shape between two gangs on the adjacent roadway. Scott went for the spinnaker pole, and I went for the boathook. The conflict eventually migrated down the street.

I don't remember how we got home that night, but I do recall that we knew we had to be back the next day — and every day thereafter — to pump out the boat to keep her from going awash. And so, for the rest of the summer, we alternated coming down to the boat after work every night to pump her out. I was able to sail the vessel three times, and Scott about the same.

Eventually, we found the main leak in rotted wood near the exit point for the prop shaft. Using underwater glue in the aft corners of the bilge, we attempted to patch it, and occasionally reduced the inflow by 20 percent or so. This meant that, on a good day, instead of *Hobart* sinking in 20 hours, it would take her 24.

David felt sorry for our debacle, and composed a song in honor of our misery, to the player-piano tune of "Bill Bailey, Won't You Please Come Home?" It went like this:

Won't you sell out, Big Ed, won't you sell out?
You've got a l-e-a-k-y b-o-a-t.
It isn't worth two cents but Frank's got four thou,
He's been saving up for a-l-l h-i-s l-i-f-e.
He's only 18, it is kind of mean,
He's got a few things to l-e-a-r-n.
Now Scott's pumping by hand while Ed's in
B-o-c-a Grande.
Big Ed won't you please sell out!

At the end of the summer, my father tried to salvage the situation by buying the boat for a dollar and then giving it to the Sea Scouts of Milwaukee, thus enabling a meaningful charitable gift tax deduction for himself and Scott's father. Scott scheduled a delivery sail to Milwaukee with his girlfriend and mother as crew, but when the day came, the wind died mid-voyage, the engine would not start, and Scott's girlfriend was seasick.

So they arrived quite late, tied up the boat, and got a ride home. Our friendship slipped through the latter stages

Early on in the passage to Chicago, spirits were high, at top right. Scott trimmed the sails while David steered, middle right, but when Scott went below, he discovered the floorboards afloat. The boat at least had a spinnaker, at right.

Frank and his son, Cody, today sail their much more reliable and watertight Nor'Sea 27, *Blue Moon,* on Lake Superior.

of dissipation. A year later, after my father had filed his 1969 tax return, he was audited by an unpleasant representative from the IRS. The red flag? That doggone boat.

Ten years passed. I went back to being an occasional dinghy sailor, and in 1978 was an editor at one of the sailing magazines in New York. On a slow day, I assigned myself a follow-up story on *Hobart*. After a few calls, I tracked down a fellow from the Sea Scouts of Milwaukee who at first had been glad to have the donation of the boat, but was soon obliged to give up on her, owing to her inability to float for extended periods of time.

A year later, the Sea Scouts sold the boat for a pittance to an ambitious hobbyist. That fellow worked for two years and then, overcome by the reality of pervasive rot, gave up. With a chain saw, he carved the boat into small sections and then trucked it away, thus saving marina storage fees. So it was that the good ship *Hobart* morphed into soggy firewood and entered her final resting place at the county landfill.

In 2008, when age caught up with me and I had to stop dinghy sailing and windsurfing, I realized it was time to transition back to sailing a bigger boat. That winter of 2008/'09, my 6-year-old son sat on my lap after dinner each night while we perused the internet. After much research, we settled on the Nor'Sea 27 as the target boat.

Remembering our near-sinking on *Hobart* in the middle of Lake Michigan, I had four surveys done on four different Nor'Sea 27s, one each in South Carolina, Florida, San Francisco, and Seattle. I rejected the first three, and then three months later bought the one in Seattle. It had voyaged to Hawaii and Alaska with previous owners, had a new engine, and was in good shape. I found an empty marine-transport truck coming back to the Midwest and arranged a favorable price. A month later, we launched *Blue Moon*.

We are now in our ninth season of daysailing and regional cruising on the south shore of Lake Superior. The Lyle Hess-designed Nor'Sea 27 is solid fiberglass, built like a handsome mule, and looks like it is made of wood. It is easy to single-hand, trustworthy in high winds, comfortable to cruise, and a joy to sail. Life is very good indeed.

It is only now, in the wisdom of the ensuing 48 years, that I realize the magnitude of our wrong choice of boat back in 1969. For $1,000 more, we could have bought a fiberglass Cal 25 that came with a trailer and a mooring in Chicago Harbor. I still kick myself when I think of it, imagining the great sailing Scott and I could have done together that summer, and all the headaches we would have avoided by purchasing the practicality of fiberglass, rather than the romantic notion of wood.

But we would not have learned nearly as much, nor have been able to choose wisely later on. Besides, we got a heck of a good fried chicken dinner into the bargain.

Frank Farwell, after three decades in New York and Madison, Wisconsin, moved north 12 years ago to be near the love of his life, Lake Superior. Two beater Sunfish, a stout Nor'Sea 27, and 11 canoes facilitate outings on the big lake and its tributaries. His book, Chicken Lips . . . : An Entrepreneur's Wild Adventures on the New Silk Road, *was a nominee for the 2011 Financial Times/Goldman Sachs Best Business Book of the Year award.*

The ABCs of VHF with DSC . . .

. . . and the safety significance of MMSI and GPS

BY MARCIE & DAVID LYNN

When we replaced the fixed-mount VHF radio on our 1986 cutter back in 2002, we noticed the new radio featured a red "distress" button on its console. The button was there because, in 1999, the Federal Communications Commission (FCC) began requiring fixed-mount VHF radios to include Digital Selective Calling (DSC) capability, part of the Global Maritime Distress and Safety System. I knew that large commercial vessels used this digital calling option regularly, but truth be told, we pretty much ignored it. We used Channel 16 for hailing, other VHF channels for chatting, and never had an emergency that required a Mayday. We'd heard the alarm go off a few times (it's ear-shattering), but it had always stopped within a few seconds.

Fast-forward to Western Australia in 2014, where we had the opportunity to attend a DSC/MMSI lecture provided by the local coast guard. What an eye-opener! We had this capability aboard all the time and we never even realized it. What's more, it's easy, it's fast, and it's safer in emergencies than using Channel 16. And, with this extra feature, our VHF radio, like everything else aboard our boat, serves more than one purpose.

The setup

To benefit from all the smart features of DSC, you need a GPS-enabled VHF or SSB radio manufactured after 1999 with your Maritime Mobile Service Identification (MMSI) number entered into it. It's important, too, to ensure the information associated with your MMSI is up to date.

An MMSI number is comparable to a digital call sign or a phone number. Each MMSI number is unique to a particular vessel.

Obtaining an MMSI number is easy. If you operate a recreational vessel and do not plan to sail or communicate via radio outside the USA, you can obtain an MMSI number for free through membership in one of several organizations, including BoatUS, Sea Tow, and US Power Squadrons. Non-members pay a small fee. If you do intend to travel out of the US, you must apply for an MMSI number directly from the FCC. This can be done online, but there is a fee, and you must also obtain a station license. Canadian vessels can obtain MMSIs from Industry Canada.

Because an MMSI number serves to identify a vessel, not particular equipment, all DSC-capable equipment, including Automatic Identification System (AIS), used aboard a vessel should use the same MMSI number. If you sell your boat, the MMSI number will usually transfer with it.

Using the red button

Anyone on board, even someone with no knowledge of how to operate a radio or of the boat's position in latitude and longitude, can send a distress message. Once the radio is properly installed with its MMSI number entered into its memory, just lift the protective cap, push the red distress button for five seconds until the radio beeps, and the radio will transmit your vessel's MMSI number, current position, and the current UTC time to the local search and rescue (SAR) service as well as to any DSC-capable vessels within the transmit area . . . all within ⅓ second. The distress call will repeat every 3½ to 4½ minutes on Channel 70 until it has been acknowledged.

The radio can only send the vessel's position if it is connected to an operating GPS device. Some radios have a built-in GPS, others can be connected to the vessel's navigation GPS.

Any potentially life-threatening issue, such as a heart attack or grave medical issue, collision, fire aboard, sinking, or piracy is a legitimate Mayday emergency and warrants use of the

The red DSC distress button is under a hinged cover so it won't be pressed by accident, upper left. Selecting "Test" on the DSC menu tests the distress function, upper right. Selecting "Individual"from the menu allows the operator to call a vessel using its MMSI number, above left. This VHF set has AIS built in, so it can show nearby vessels with their positions, MMSIs, and other information, above right.

distress button. Running out of fuel or beer is not — that's a call to a towboat company.

The SAR response

The SAR service (in the US, that's the US Coast Guard) is alerted to the distress call and acknowledges it, whereupon the VHF radio from which the distress call originated automatically switches to Channel 16. The SAR service will then verbally hail that vessel to confirm the boat's name, nature of the emergency, number of people aboard, course and heading, position in latitude and longitude, and vessel description.

If you have not entered your vessel-specific MMSI into a DSC-enabled radio, pushing the red button cannot help you. Sadly, the US Coast Guard (USCG) reports that of all VHF DSC distress alerts it receives, 90 percent do not contain position information and 60 percent do not contain a registered identity. Without this information, no SAR service can respond effectively.

Testing the distress function

Most newer radios have a test mode, and the USCG has a quick and easy test procedure you can use to check your radio and ensure that the DSC option is operable . . . before you need it. The USCG's automated-response MMSI number is 003669999. If you send a test message to this MMSI number, you should receive an acknowledgment within a few minutes. Interestingly, when we tested our DSC with the USCG recently, the response time was closer to 10 minutes.

On receiving a distress alert

Have you ever received a distress alert and not known what to do? You're in good company. However, in your ignorance, you probably did the right thing . . . nothing. The signal is loud

DSC and AIS —MR

Reading this article reminded me of how we used DSC in conjunction with AIS to hail a vessel we could see but for which we hadn't pre-entered its MMSI number. Sailing (well, motoring) up the Salish Sea and the Inside Passage in 2013, we often found ourselves in relatively narrow channels with challenging tidal currents and traffic. Sometimes that traffic was a ferry, a burdened tug, or a cruise ship and we'd want to find out its intentions or let them know ours. Often we'd hail it on Channel 16 or 9 or what we thought was the designated commercial hailing channel, and get no response. In those cases, we'd locate the vessel (and its MMSI) on our AIS receiver and then call it directly, bridge-to-bridge, using DSC. On our radio, at least, an incoming DSC call is hard to ignore, like a loudly ringing phone. This approach was nearly always effective. And because our VHF radio (Standard Horizon Matrix) has an AIS receiver built into it, hailing a vessel in this way required nothing more than selecting a "Call" menu option.

and disturbing and gets progressively louder the longer it sounds. Touching any button on the radio will silence the alarm. You can monitor and even record the message — MMSI number, location, and time — but do not respond. Instead, wait for the SAR service to respond. If there is no response within five minutes, it's likely that the boat in distress is out of range of the SAR service's network. Silencing the alarm by pressing a button automatically switches most radios to Channel 16. You can then relay the distressed vessel's MMSI and position to the SAR service and contact the distressed boat on Channel 16. Otherwise, keep off the radio.

All Ships call

If an All Ships call is made, your radio will sound an alarm. The alarm will stop after 10 seconds or when you press any button, then automatically switch to the channel requested by the sending station. You should stay tuned and listen for the voice broadcast. This is often used for Pan Pan or Securité calls when Channel 16 has a lot of traffic, or in areas of the world where not everyone monitors Channel 16.

Other DSC benefits

Ever tried hailing another vessel on Channel 16 in a busy marina or during the height of the boating season? Forget it! Sure, you can use your cell phone, but DSC is just as easy.

You can enter another vessel's MMSI number into your radio in much the same way you'd add their cell number to your contact list, and initiate an individual call to them. If the other vessel is within range, its VHF, if it's turned on, will ring like a telephone — no matter what channel it's monitoring. If the call is acknowledged, both radios will automatically switch to the working channel you specified and you can start your conversation.

If your local yacht or fishing club applies for an MMSI number, it can send out group messages to all registered members of the organization. It's a great way to keep in touch with rally or race participants.

Another useful feature is the ability to send and receive position reports. This is especially helpful when traveling with another boat. As you know the other vessel's MMSI number, you can request its current position. Once the other vessel acknowledges the request, its position is sent and displayed on your radio in latitude and longitude.

Make the most of DSC

If nothing else, everyone aboard, guests as well as crew, should be made familiar with how to access and use the DSC distress button. Not all VHF or SSB radios are the same, so consult your radio's operator's manual for specific instructions on DSC use.

Never use VHF Channel 70 to hail another vessel. It is reserved exclusively for DSC-generated distress traffic.

Consider having a DSC/GPS-enabled VHF in your ditch bag in case of emergency.

Test your radio every once in a while to make sure the DSC distress function is operable.

Next time you have the opportunity, use your DSC to connect with other boaters. You just might like it.

Marcie Connelly-Lynn and David Lynn have lived aboard Nine of Cups, *their Liberty 458 cutter, since 2000, when they sold up and sailed off. Since that time, they've put nearly 90,000 nautical miles under her keel and visited more than 36 countries on five continents. Their philosophy of "just a little further" has taken them around the world and around the five Great Southern Capes with lots of stops to explore along the way. They completed their first circumnavigation at Cape Town in 2015 and are currently back on the US East Coast. They blog regularly and maintain an extensive website at www.justalittlefurther.com.*

Resources

Learn more about DSC and that "red button" . . .

USCG DSC special notices
www.navcen.uscg.gov/?pageName=DSCSpecial

Testing your DSC distress-call button
www.navcen.uscg.gov/?pageName=DSCTesting

BoatUS tutorial on selecting and using a DSC-equipped VHF radio
www.boatus.org/dsc

Applying for an MMSI through BoatUS
www.boatus.com/mmsi

Instructions from the FCC about applying for ship's license and transferring/updating MMSI information
wireless.fcc.gov/services/index.htm?job=licensing&id=ship_stations

FCC list of fees
transition.fcc.gov/Forms/Form1070/1070y.pdf

BY JOE ROSENFELD

Dead space goes live

Finding hidden corners and using them for storage

Fitting out our 2003 Tartan 3700, *Sapphire*, for a cruise from Lake Ontario to the Bahamas, I realized that we needed more storage space and that we needed to shift weight forward. Like many production boats in her size range, *Sapphire* has a large aft cabin that we could easily load up with enough stores and gear to support us, but doing this would leave her aft-heavy and well off her sailing lines.

Production boats are assemblies of pre-constructed components, so empty space can often be found behind liners or around tankage. I came up with a clever means of accessing and using that space.

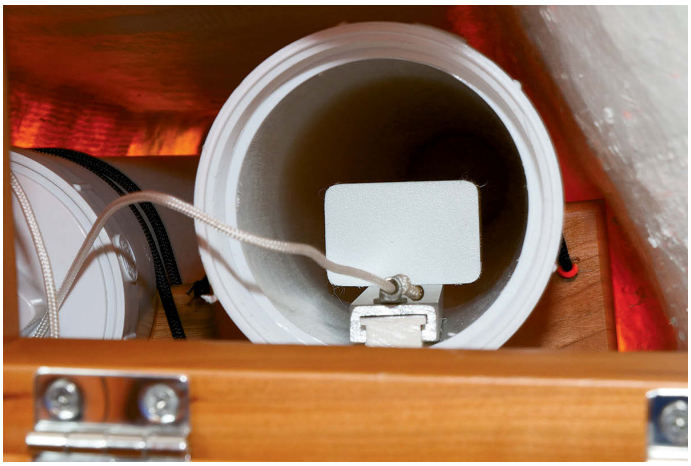
Needing to put more weight forward, I hunted for empty space around the V-berth, where I found that the forward water tank sits in a fiberglass pan with a 4- to 8-inch air space between it and the inside of the hull.

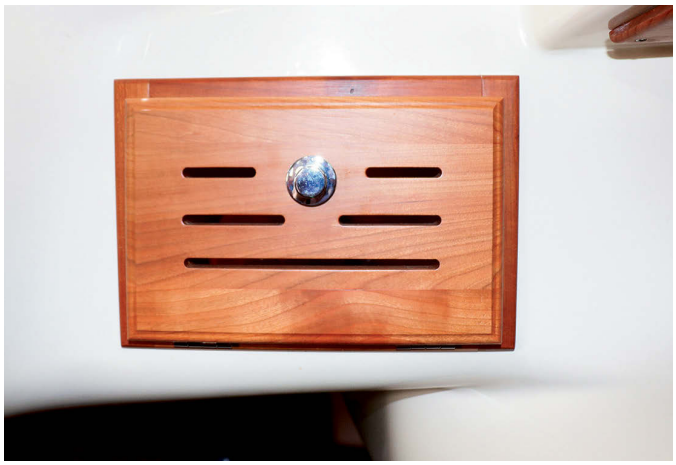
Part of my solution was to make storage tubes for canned goods using 6-inch PVC thin-wall drainpipe and mount them on either side of the water tank under the V-berth platform. The open ends of the tubes are accessible through the access panels in the top of the platform.

For retrieving the cans from the tubes, I fabricated a track-and-car assembly similar to an adjustable genoa fairlead. The car is a piece of an aluminum extrusion used by woodworkers to build jigs. (The extrusion and a matching track extrusion can be obtained from online woodworking supply outlets, but that track would have to be shimmed to raise it high enough for the edges of the sliding car to clear the inside of the tube.) For my track, I used a 5-foot length of ¾-inch-thick StarBoard left over from a previous project.

I found the car works best when it is slightly shorter than the cans being loaded. To retrieve the cans, I pull the car toward me with a cord, which I attached to the car with a yellow #12 electrical eye connector. A block fastened onto the far end of the car pushes the cans out when the cord is pulled. Any screws through the car must be flush with the underside for the car to be able to slide on the track.

The track inside the tube needs to be reasonably straight for the car to slide smoothly. To install it, I started by snapping a chalk line end-to-end on the outside of the pipe, taking care not to let the line spiral around the tube. I then drilled ⅛-inch holes every 10 inches along the length of the tube. Next, I drew a centerline end-to-end on the track surface that would mate to the pipe wall. Using a variety of scrap 2 x 2s, I was able to





The tubes under the V-berth, at top, are hung fore-and-aft in 1-inch nylon webbing that is fed up through ¾-inch holes cut into the bunk platform and fastened down with screws. The tubes in the cockpit coaming, above left, are bungeed onto cradle blocks set in place on the headliner with 3M 5200. Joe made a handsome access door to properly finish the job, above right.

Joe's car is a length of aluminum extrusion with a block fastened to one end and a retrieval cord on the other. It slides along a track made of StarBoard.

lever/wedge the track up against the inside of the pipe and shift it around enough to see the track centerline through the predrilled holes. When the track centerline was visible, I ran the drill bit through the predrilled holes and the track. I used ¾-inch #8 pan head screws to pull the track up tight against the inside of the pipe, and ground off the points of any of the screws that broke the surface of the track. Using woodworking spring clamps on the tube ends and working from one end to the other helped me attach the track securely without it buckling inside the tube. I gave the car a trial run to ensure that no protruding screws or excessive curvature of the track would prevent it from sliding smoothly.

I drilled a ⅜-inch drain hole through the end cap and glued it into place. On the retrieval end of the tube, I used a threaded inspection plug. I drilled a hole through the center of the plug to capture the retrieval string and keep the cap from going into the bilge when I was pulling cans out.

The obvious drawback is that I might have to pull out several cans to get the one I'm looking for. Our solution is to load only one product in each tube or to rotate various cans of vegetables randomly and eat whatever comes out.

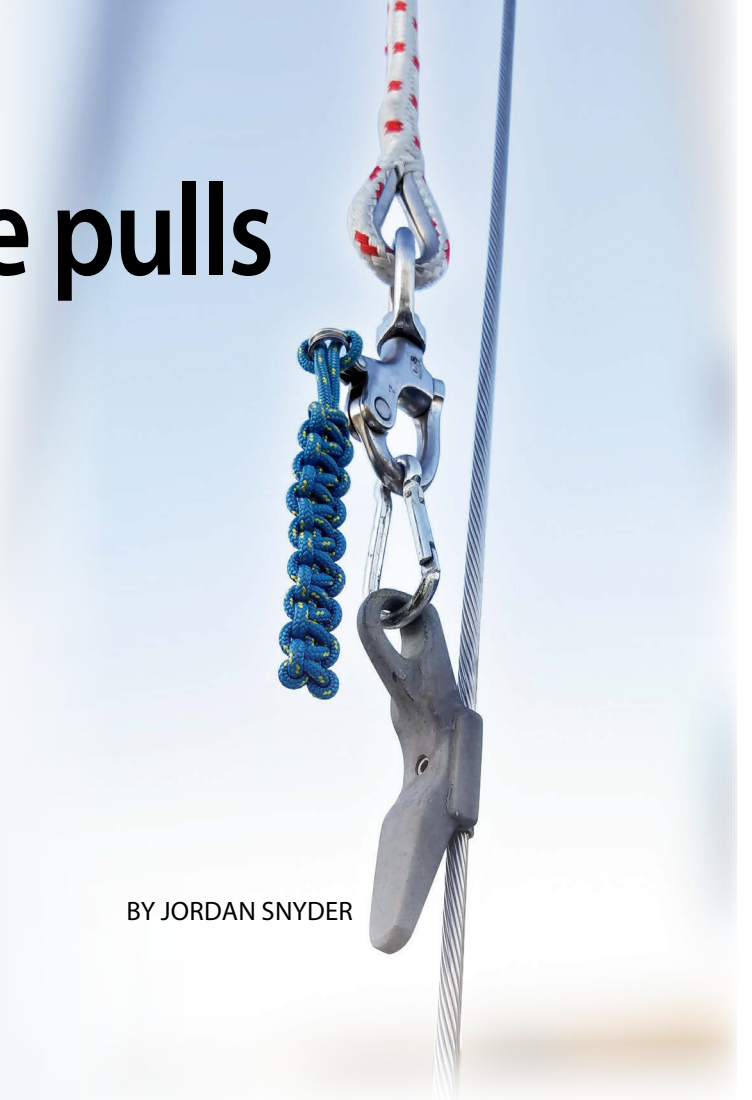
To make use of the air space under the V-berth water-tank tray, I sewed up ripstop nylon bags of various sizes. I load one layer of canned goods into each of these and push them up under the water tank. Somewhere along the way, we'll have to unload the V-berth lockers to get at these stores and replenish those that were easiest to reach. That's still better than paying high island prices for these goods and dragging a cart up and down a dock.

I was also able to mount two tubes side by side in the dead space between the aft cabin headliner and the cockpit coamings. I use these tubes to hold dry goods like coffee bags, non-dairy coffee creamers, and custom-sized vacuum-sealed pastas. I made a small door to conceal the hole in the liner and the tubes and painted the inside of the coaming box as far as I could reach to cover the raw fiberglass and make it easier to clean.

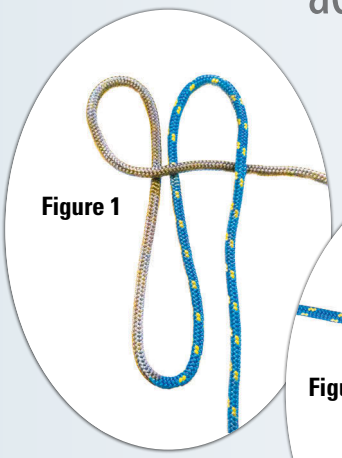
Joe Rosenfeld started working on boats as a teenager when his $100 wooden catboat sank the day after he sailed it home. The craft, christened Diphtheria, *mostly floated through Joe's high school years until a shoreside keg party sent it to Valhalla. Over the next 40 years, the quality of the fixer-uppers went from "left for dead" to "just a little down on her luck" as Joe's career as a high-voltage lineman progressed. Along the way, he became an award-winning restorer of wooden boats and an avid club racer on Lake Ontario and in East Coast ocean races. Joe, his wife, Mary Beth, and their fox terrier, Flexy, are cruising on their 2003 Tartan 3700,* Sapphire.

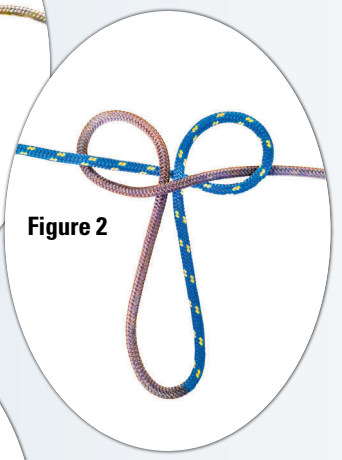
Braided shackle pulls

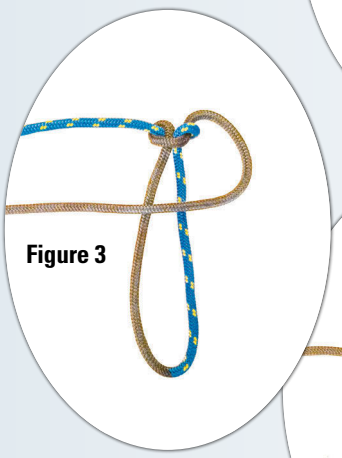
Handmade pendants add grip and color

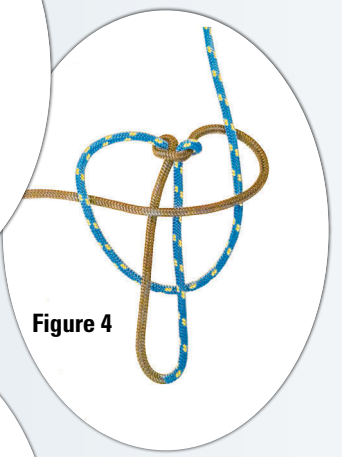


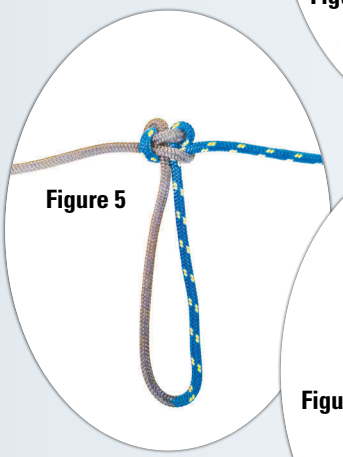
BY JORDAN SNYDER

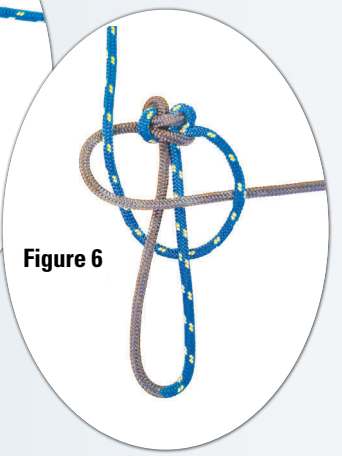












Shackle pulls can spruce up zippers, shackles, key chains, and many other pieces of hardware on your boat. You can purchase pulls for about $5 each from your local marine chandlery or, by following the steps below, make them in minutes from short pieces of spare line. Making them yourself is easy, and it's nice to be able to match or color-code them throughout your boat.

Start with about 3 feet of lightweight 4mm (5/32-inch) nylon line. Fold the line in half and point the loop down. We'll call this the main loop.

1. Create a loop on the left and a loop on the right. You can adjust the length of the main loop depending on how you plan to use your shackle pull; I start with about 5 inches.
2. Bring the left loop over the main loop and under the right loop, *Figure 1*.
3. Bring the right loop over the left crossing line, under the main loop, and up through the left loop, *Figure 2*.
4. Pull this knot tight. It will feel awkward at first, but after the next braid is complete, you will be able to cinch it all together nicely.

The process repeats now from step 2 but starts with the opposite side.

- Bring the right side over the main loop, *Figure 3*.
- Repeat the braid as you did in step 3 by bringing the left side over the right crossing line, under the main loop, and up through the right loop, *Figure 4*.

Note: *Alternate the start of each braid. Always start from the side that has the "loop over top" from the previous braid. This will become clearer as you proceed.*

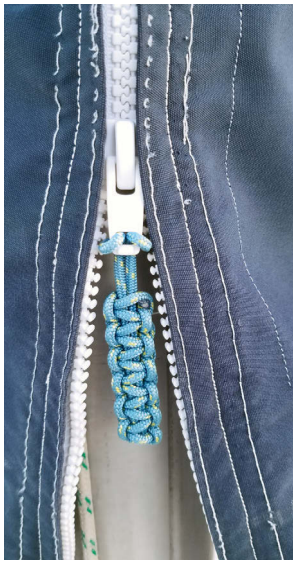
- Pull everything tight to create a nice clean knot. Also note that the "loop over top" is now on the left side, so the next braid will begin with the left loop, *Figure 5*.
- Repeat steps 2 to 4 and remember to start on the side with the loop over top, *Figure 6*.
- Pull everything tight after each braid is completed. Include pulling the main loop tightly down while holding the knots. And again note the loop over top is now on the right side.

At this point, your shackle pull should be coming together nicely.

- Continue to repeat steps 2 to 4 until you have the desired number of braids and the main loop is the length you need. My completed shackle pull usually ends up with six to eight braids and about 1½ inches of main loop left, *Figure 7*, *Figure 8*, *Figure 9*, *Figure 10*.
- Once you have reached the desired size and loop length, trim the ends and carefully heat and melt them so they are sealed and won't fray.
- Your shackle pull is now complete, *Figure 11*.

You can use many different sizes and types of lines. I have used basic nylon braid along with reflective line. I now have handmade matching pulls attached to all my shackles so I can release them easily.

Jordan Snyder is a lifelong explorer and sailor who runs expedition-style multi-day sailing adventures and photography workshops aboard his newest boat, Base Camp II. *He also works on environmental research and citizen-science projects to help promote awareness of complex conservation issues. Join his adventures at www.BaseCampSailing.com.*



A pendant makes it much easier to operate a stiff zipper pull, at left. Suitable line for shackle pulls comes in many colors, at right.

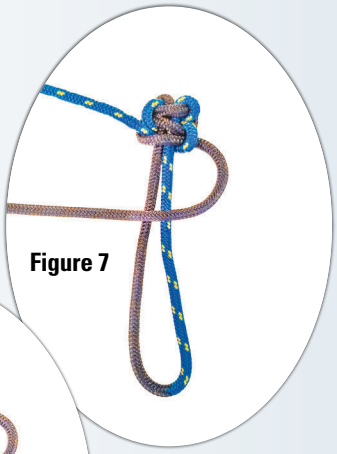


Figure 7

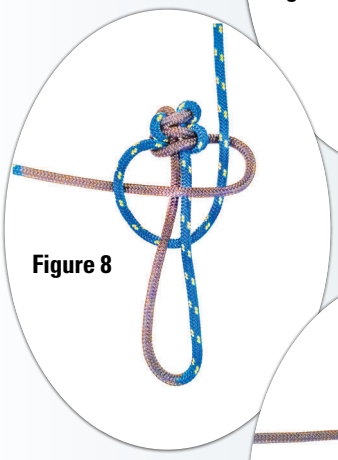


Figure 8

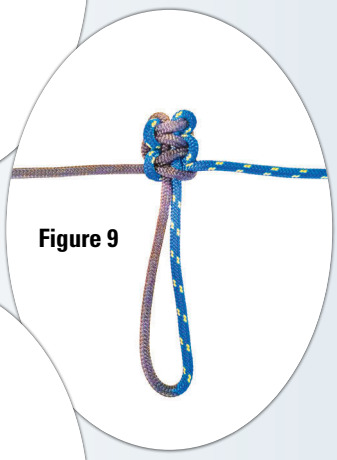


Figure 9

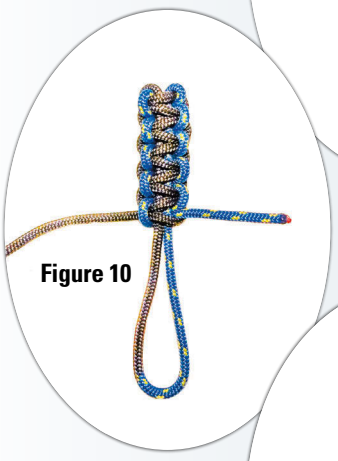


Figure 10

Figure 11

VIDEO

Want to see more?
Visit our YouTube channel,
***Good Old Boat* Magazine**

"Sailboat racing has been a family affair since my dad (now 80 years old) purchased his first boat in 1972," wrote Kevin Alles. Kevin took this action shot while crewing recently for his father aboard the C&C 29 his father bought new in 1984.

Continued from page 7

A caution about camp stoves

I'm writing in regard to the article published in the January 2018 issue, "A New Galley Stove." I've been a loyal reader for years and always appreciate novel ideas for saving money while boating. I've been in the marine industry as a marine mechanic, electrical, networking, gelcoat, and jack-of-all-trades type officially for two years and unofficially for over 15.

You included a brief propane-safety blurb, but I still feel you are doing your readers a disservice with this article. Many people do use camp stoves in their boats, but that doesn't make it safe. One of the first things the manuals for these stoves say in all caps is: "DO NOT USE IN ENCLOSED SPACES, INDOORS, OR UNDER STRUCTURES OF ANY KIND." These stoves have none of the flame-detection and cutoff devices found on the marine-rated stoves designed for use in boats. Even RV stoves at least have flame-out sensors.

So you get what you pay for at $200: no safety system to turn off the propane when the wind blows out the flame. For about $400 to $500, you can get an RV type with some safety features, or for $800 to $1,200, an ABYC-rated stove with all the safety features.

I felt the article was implying that it is just as safe to use a camp stove with propane detection as it is to use a marine stove. This is certainly not the case, as camp stoves are constructed with lesser-quality materials and the regulators aren't fail-safe.

I used to use a camp grill in the cockpit of my first mono-hull boat (an O'Day 22). While I was grilling a fresh-caught fish under sail, the grill's regulator failed and proceeded to shoot out approximately 6-foot flames that were licking the mainsail. Since then, my enthusiasm for cheap cooking devices aboard has been seriously tempered.

I know lots of people sailing on a budget who use camp stoves, and I disagree with every one of them. A far safer option would be an Origo style of stove (two-burner stoves are about $200) and oven unit, or saving a few more boat bucks and getting the real deal.

–Andrew Pickard, Grand Rapids, Mich.

Editors' response

Thank you, Andrew, your points are valid and appreciated. We didn't intend for the article to imply that the author's installation was equivalent, safety-wise, to an ABYC-approved marine stove. That said, while it's certainly prudent to take advantage of safety advances, the author's installation was simply an R&R: he replaced the camp stove that came installed on the boat a half-century ago. And although this stove lacks some of the safety features we take for granted today, a careful operator can use it safely and successfully. It's worth noting, too, that the author, Tom Alley, did not use the regulator that came with the stove. He removed it, and connected the stove to the gas line from the regulator on his propane tank, which is on deck.

MacGyvers all

I am constantly amazed by the clever and elegant solutions your contributors use to repair and/or improve their boats. This is especially gratifying considering our current throwaway culture. It reminds me of how innovative my father was when it came to fixing practically anything. When something went wrong at our house, it seldom initiated a trip to the hardware store. He and I would walk the alleys of our Chicago neighborhood, "Dumpster-diving" until he found what he needed to do the job. At the time, I didn't understand how a discarded gutter or piece of pipe would solve our problem, but it always seemed to be just what was required to do the job.

–David M. Jahn, Mahomet, Ill.

The Dogwatch from Good Old Boat

Dogwatch (n): Nautical: Either of the 2-hour watch periods between 1600 and 2000 when both watches are up and about and exchanging news of happenings on board.
Newspapers: The period after a regular edition goes to press when staff stand by in case breaking news warrants a late edition.

We love to hear from our readers! Send letters to the editor to michael_r@goodoldboat.com. We publish additional letters in our monthly newsletter, *The Dogwatch*, along with new articles and book reviews. If you aren't receiving the email announcing *The Dogwatch*, contact Brenda (brenda@goodoldboat.com).

A good old belated wedding gift

Hours of watch-standing begin to wear on a sailor no matter how much we enjoy the service. We rely on outlets to occupy the mind. For some that's exercise, for others, video games, and me, I turned to sailing.

For six months, I stood on the bridge of a US Navy destroyer dreaming of sailboats I did not own, adventures I had not yet had, and the wife I left at home. I read the words of Joshua Slocum, Sir Francis Chichester, Robin Knox-Johnston, Steve Callahan, and Frank Worsley. I pored over old copies of *WoodenBoat* magazine. I wrote long letters and emails to my wife, Sarah, sharing my dreams of a life we could lead together. We would sail the world, meet amazing people, and let every other stress slip away.

These romantic thoughts led to a clear, crystallizing epiphany between husband and wife: "We should buy a boat!"

I had not been on dry land for more than six hours before my wife and I were huddled over the computer in our Seattle studio apartment scouring the internet for the perfect sailboat. Having grown up sailing on the coast of Maine, I was looking for a J/Boat, a Pearson, or a Cape Dory. But after five minutes of searching, I realized that I needed to update my vocabulary to include San Juan, Cascade, Coronado, and Cal. I had entered the new and exciting world of West Coast sailboats. We continued reading, and it wasn't long before we'd scheduled appointments with brokers. Only four days had passed before we were standing shell-shocked in the cockpit of our very own 1971 Coronado 25.

It wasn't so much that the Coronado 25 was our dream-boat, but rather that it was the cleanest and in the best condition of all the available boats listed and at a price that matched our strict budget. Sarah and I found ourselves with a good old boat moored in a beautiful Seattle neighborhood on the shores of Lake Washington. We named her *Honeymoon*, due to the fact that I deployed a week after our wedding and the boat fund was coincidentally the same size as the honeymoon fund.

On our maiden voyage, I discovered that our *Honeymoon* handled a bit like a tub. After getting out of the slip, she struggled in the light breeze and didn't want to fall off the wind, yet despite our first impressions, she is still the best boat I have ever owned. She represents the remarkable amount of effort it takes to maintain a healthy relationship while serving in the military, and she represents all the hopes and dreams we have for our future.

Honeymoon is not the first boat I have owned, nor will she be the last, but she is certainly the first boat that makes me think of hope, love, and my beautiful wife.

–Jonathan Poole, Seattle, Wash.

Shockles: LineSnubber, DockShockle, and MiniShockle

I was skeptical that something advertised as "bungee cords on steroids" could do much to absorb heavy-duty shocks, never mind last long. Even for marine-grade materials, a year in the sun is an eternity and chafe is fatal. Yet some of my dockmates have 2- and 3-year-old Shockles on their lines and they look practically new. What I originally saw as a gimmick I now see as solid seamanship.

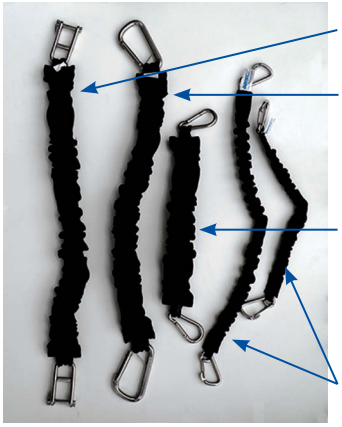
A Shockle's cover is heavy-duty tubular nylon webbing, much like that many sailors use as chafe protection over docklines and anchor snubbers. The securing hardware is quality stainless steel, plenty strong for the maximum load a properly installed Shockle is likely to be subjected to.

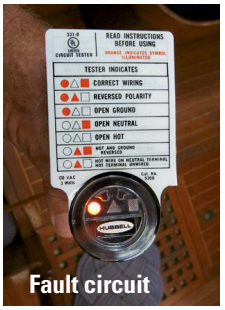
My marina experiences tides, and as in nearly all Chesapeake Bay marinas, boats moor between pilings without floating docks. Significant slack in docklines is required to accommodate daily water-level changes. For an unrelated research project, I've measured the strain on docklines through a range of conditions and with varying tie-up methods, and I've observed that reducing motion reduces line strain. It is the momentum of a moving yacht that exerts the force that does the damage, not the wind force alone. By using Shockles to take in the slack on my docklines, both motion and line wear are reduced. On a lighter boat, Shockles reduce the motion when a person steps on or off the boat.

It's important to match the product stiffness to the boat. Most boats 30 to 40 feet should use LineSnubbers, boats 25 to 30 feet should use DockShockles, and the very lightest boats may be served using doubled MiniShockles. DockShockles and MiniShockles come with LineGrabbers. These are Dyneema dog bones that can be used to easily secure the Shockle to the line.

Shockles products are available at Hamilton Marine, Defender, and other chandlers. For more information: www.davisnet.com/product/shockles.

Drew Frye, *Good Old Boat* contributing editor





Hubbell HBL5200 Outlet Circuit Tester

Arriving at an unfamiliar marina, the first thing I do after we plug into shorepower is check the incoming voltage on the panel meter. I then use a circuit tester on our AC receptacles to confirm the hot, neutral, and ground connections are correct.

My impression of the Hubbell HBL5200 circuit tester is that it's a very well made, rugged device that would serve my purposes. The indicator lights are bright and the symbol identification key is printed on heavy plastic and permanently attached to the tester. It automatically checks for the six usual fault conditions, plus one that isn't normally detected: hot-wired to the neutral with an open hot terminal.

I queried the manufacturer about what seems a high price (about $55 online). Joe DiMaria from Hubbell responded, "I have had boaters show me their Hubbell testers from 30 years ago, still working . . . and I do not recall ever getting a product complaint, so it holds up in the marine environment." Compared against my inexpensive tester which is showing signs of corrosion, the Hubbell tester may well warrant the higher price.

For more information: hubbell-marine.com.

David Lynn, *Good Old Boat* electronics editor

We present these profiles as a service, as firsthand accounts from fellow boaters. Neither *Good Old Boat* magazine nor the folks who profiled the products on this page were paid for these profiles. Most products were sent to *Good Old Boat* for review consideration by the manufacturers. We profile only a small percentage of the products that marketers contact us about, choosing only those we're interested in, in the hope you're interested too. A few products we pick up on our own, because we want to share.

Boats for Sale

Mercer 44
1962. Classic Bill Tripp-designed CCA keel/CB sloop for sale by third owner. *Good Old Boat* feature boat, July '12. Raced in SORC as *Jolie Madame*, won Lipton Cup. More recently as *Spirit*, won Turkey Shoot Regatta. Featured in *Great American Yacht Designers* as example of Tripp's work. Cruised to Maine, Tahiti, Caribbean, Bahamas. Professional total rebuild documented in magazine article "Glass Menagerie." Full details online at the Mercer owners' website. Irvington, VA. $120,000.

Floyd Hollister
804-435-8729
fhh11@columbia.edu
www.mercer44.net

Pearson 27
1987. Featured in *Good Old Boat* Sept. '14. Exc cond. Lightly used, always in northern fresh waters, wintered indoors at least since '02. Professionally maintained diesel. Well equipped. Full canvas, like-new sails. Teak interior enhancements by master carpenter, lots of extra storage. Email for more info and photos. For sale with '03 "Sailor Trailer." Pickstown, SD. $20,000

David Gruendel
308-382-5208
gruendel@charter.net

Pearson Vanguard 32
1964, hull #66, tiller. Rhodes design. Owner since '84. New 20-hp Beta engine, 86 hrs. ProFurl RF, secondary forestay, ST winches, new rigging and spreaders. Roller-boom main reefing, lazy-jacks. Aries self-steering, solar panel, 4 sails. New stovetop, interior paint, varnish, and cushions. Raymarine GPS. Closed-cell cockpit cushions. Monogram head. Monel fuel, water tanks. Complete ground tackle. Awlgrip paint. Manual Muir windlass. Many extra parts. All manuals. No damage from Irma. Florida. $19,500 OBO.

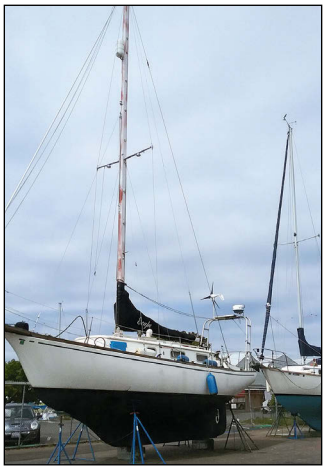
Pierre Soucy
954-861-8836
solutions5@hotmail.com

Kent Ranger 26 with trailer
1978. A great ocean-capable pocket cruiser. 6' 2" headroom, inboard Yanmar diesel, enclosed head, holding tank, full galley, settee converts to queen-size bed, large quarter berths aft. Cushions in exc shape. New paint in and out. Electrician-checked wiring. Trailer rebuilt with 2 new axles and tires. 3 sails, 2 AGM batteries. Central Oregon. $15,500.

Renee West
541-598-6126
renee97219@yahoo.com

Mariner 28
1977. Sail anywhere! New Hampshire quality, abundant teak makes for warm, inviting cabin. Good cushions in cabin and cockpit. Wheel, diesel, bimini. RF 100 and 150 jibs, maize-and-blue light-air genoa, spinnaker, FB main. Spinnaker pole, whisker pole. ICOM VHF, Pyle AM/FM/Weather CD/DVD radio receiver, foot-pump sinks. Standing headroom, teak privacy doors. Split stern rail, swim ladder. New barrier and bottom paint Sept. '17. Everything to sail or motor today. Knoxville, TN. $8,500.

George Hubbell
865-980-0879
ship300sails@yahoo.com



Fuji 32
1978. Cutter-rigged for single-handing, shallow draft, full keel, CG documented. In fresh water while not cruising. Mexico '98, Inside Passage '00. Neil Pryde FB/triple-reef main, foam luff, 120 RF jib, gennaker. New Monitor windvane. Isuzu 27-hp diesel. New ZF transmission, windlass. 50W solar, wind gen, self-leveling radar platform. 60 gal FW, 25 gal holding. Hot water cruising or shore. Includes dinghy. Ballard Mill Marina, Ballard, WA. $25,000.

Howard Lanie
425-299-5726 or 425-771-2740
bethowbz@gmail.com

Sparkman & Stephens 42
1974 sloop. Olin Stephens redesigned *Finisterre*'s hull for better performance and construction in fiberglass. Wright-Allied manufactured the design as the XL-2. Hull #20 has been refitted with state-of-the-art subsystems, all-new stainless steel, and custom interior. '14 survey says value ~ $130K; replacement ~ $500K. Email for brochure and 2014 insurance & valuation survey. $99,000.

Donald Parker
410-703-0374
coxn.don@gmail.com

Mariner Yachts 36 cutter-ketch
1979. Hull #15 New Hampshire-built Mariner 36 designed by Peter Canning. Cutter-ketch rig adds significant sail area, improving light-air performance and making this solid bluewater boat easily adaptable to various weather conditions. *Kittiwake* has been dutifully maintained and upgraded throughout her life cruising the East Coast and Chesapeake Bay. Annapolis, MD. $49,000.

Geoff Ferrell
202-547-7757
geoff@ferrell-madden.com

West Wight Potter 19
2004. Easy-to-sail design, excellent for daysailing or weekend overnights. No comparable trailerable sailboat offers better stability. Easy handling and towing. Bluewater layup, mast-raising system, bimini, RF jib, 4-hp Yamaha OB. Draft 8" (keel up), 3'7" (keel down). Good condition. Trailer not included. Bokeelia, FL $6,500.

Chuck Koucky
ckoucky@gmail.com

Beneteau First 28
1983. Fin-keel sloop, tiller steering, distinctive Jean-Marie Finot design. Yanmar 13-hp diesel. Freshwater boat. 5 headsails and FB main. Raymarine S,D. Custom winter cover, bimini, boom tent and foredeck shade, cradle. Fast and seakindly, a joy to sail. Well maintained and ready to sail away. Muskegon, MI. $15,900.

Dave Fulbright
616-696-0250
dave@sailplace.com

All of these classified ads and more appear on the
GOOD OLD BOAT
website: www.audioseastories.com/adverts/

Nelson/Marek Morgan 45
1984. For 22 years this boat has given us the joy and excitement of coastal cruising (from Florida to North Carolina and the Bahama banks) and offshore voyaging (Bermuda, Azores, Portugal, Gibraltar, Lesser Antilles, etc.). Now we're semi-retired and working abroad, we want to find her a new home with someone looking for a comfortable, seaworthy boat for extensive cruising. Daytona Beach, FL. Price reduced. $69,995.

Steve Barnett
786-972-9092
stevetbarnett@gmail.com

Hinterhoeller 28
1966. Freshwater boat. Tiller steering. Sleeps 5. North main new '17, RF genoa. 1988 Mariner 9.9 elec-start OB in well. Autohelm 1000. Raymarine knotmeter. Electrical systems new '15. Plumbing upgrades '15. Life jackets, life ring, MOB pole, cushions, cockpit awning, Danforth anchor w/chain/nylon rode. Custom tandem-axle trailer. Clayton, NY. $10,000 OBO.

Mark Fontaine
410-956-5841
mrflady@hotmail.com

International 800
1964. 42' yawl. *Sanderling* is a unique center-cockpit yawl built in Germany. Totally rebuilt by owner over 10 years including cabins, beautiful mahogany interior, new Beta engine. Many planks and frames replaced, hull refastened. All systems and sails upgraded, including watermaker, solar panels, wind gen, and propane cabin heater. Must sell due to health reasons. She is ready to cruise! Must see to appreciate her uniqueness. West Bath, ME. Price reduced. $53,000.

Robert Deans
207-389-6180
sanderling2000@yahoo.com

Allied Seawind 30
1969. Legendary take-you-anywhere ketch. Just back from 12 years cruising Eastern Caribbean. Don Casey's personal boat since '73. Extensively improved. Featured in January '03 GOB. Unique interior. 6 sails, 4 anchors, up-size rigging. Yanmar 3GM30F. Fridge, oven, grill, 90 gal water. Solar, wind. APs. 2-speed Andersens. Treadmaster. Opening ports. Bimini/dodger. Chartplotter. Hard dinghy w/OB. Sailrite sewing machine. Gas gen. Lines. Tools. Spares. Ready for next adventure. Miami. Reduced to $25,000.

Don Casey
boatwrite@earthlink.net

Pearson Triton 30
1964. This boat is ready to sail away. Hull #442, Yanmar 3YM30 diesel (yard maintained), new genoa and RF, new rigging and boom, Doyle Stack Pack and lazy-jacks, Awlgrip paint on hull, Garmin GPS, and lots of other stuff. Wakefield, RI. $10,000.

Charles McMellon
347-439-1401
Charlesmcmellon@me.com

Catalina 25 with trailer
1986. Fin keel, standard rig, new sails, 12-hp Universal diesel, fresh bottom, Garmin 498, VHF, depth, stereo. New forestay, trailer. Very well cared for. Middle Georgia. $7,500 OBO.

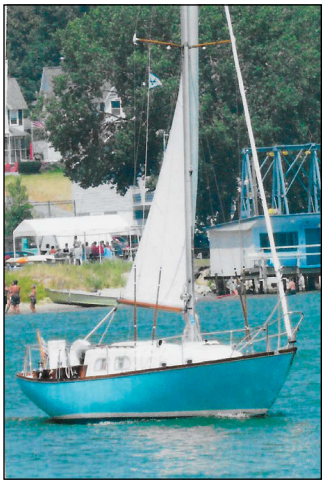
Jack Sterrett
478-232-2908
lsterrett@bellsouth.net

Westsail 28
1976. *Rola* is factory finished. Yanmar 27-hp diesel (360 hrs). Kanzaki gearbox. Propeller. Vetus water-injected muffler. Analog instruments: tach, fuel gauge, engine hours. 30 gal fuel. Compass, depth, AP, LCD radar, VHF, GPS, iPad with US and Canada charts. Wallas diesel stovetop and heater. Adler Barbour 12V Cold Machine fridge. Main, trysail, genoa, jib, storm staysail, ballooner. 4 anchors. Port of Poulsbo, WA. $25,000.

Terry Lee
425-609-8127 or 260-492-7773
lee.terrylee60@gmail.com

Pearson Coaster 30
1967. Hull #34. Yanmar 3GMF diesel, 4 sails. Extensive upgrades, solid teak-and-holly cabin sole, cedar ceilings, teak cabinets P&S. Numerous parts and supplies. Rigged for coastal cruising. Age necessitates sale. Connecticut. $18,500.

Peter Costello
203-874-8223
pmcpr821@gmail.com



Pearson Vanguard 32
1966. Freshwater boat with same owner for 41 years. Heated inside boat storage. *Starcrest* is hull number 331 and features the dinette arrangement. Comes with many sails and a newer Universal diesel (only 237 hours). Many extras, including tender, dodger, Autohelm tiller pilot, plus a very nice steel cradle. Holland, MI. $19,900.

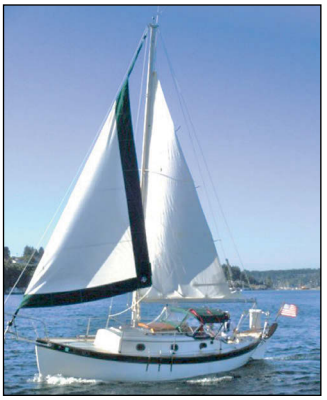
William Holden
616-335-9657
HoldThr@comcast.net

Southern Cross 28
1978. Hull #8 of 66. A cruising boat, not a harbor queen. The reputation of the Southern Cross 28 to cruise wherever it wants is well known. Heavy ground tackle, cast-iron kerosene stove/oven, cabin heater, wind gen, 20-gal holding tank, rigged for easy singlehanding, EPIRB. Original bronze hardware. A classic eye-opener and performance cutter rig. 4 sail inventory. ICW, Elizabeth City, NC. $22,000.

Pete Taggett
252-619-0240
tagalee2@gmail.com

Abeking & Rasmussen 60
1924. Steel Abeking & Rasmussen ketch. *Arktur* was Henry Rasmussen's own boat and in his family for 50 years. Email for more info. For more pictures, go to link below. Fort Lauderdale, FL. $70,000.

Scott Girard
360-322-9171
sailingclassic1924@gmail.com
www.niceyachtphotos.com/Boats/archives/61-AR-Current-pictures/i-bR2tQfT



Pacific Seacraft 25 MkII
1977. Pristine and beautiful w/ many upgrades. The original Pacific Seacraft, Crealock-designed double-ender. Exc for daysailing or weekend overnights. Easy to singlehand but ocean-capable pocket cruiser that can take you anywhere. New engine. Kevlar dinghy. *Fortune* magazine named Pacific Seacraft "One of America's 100 best products." Gig Harbor, WA. $24,500.

David Schutt
253-851-3096 |
dschutt54@aol.com

Islander 30 with trailer
1976. Project boat. This boat has tremendous potential and is in need of a good home. Rebuilt main and jib, Profurl, new standing rigging. Misc. equipment. Custom triple-axle trailer. Needs interior rebuild, compression post, systems rebuild, and engine replacement (Atomic 4). Selling our home requires selling the boat. Come and get it! Cincinnati, OH. $999 OBO.

David Conrad
513-886-0481
avi8ordave@yahoo.com

Kirie Elite 32
1984. *Windward Rendezvous*. Fin keel, second owner. Typical French cruiser/racer. Beautiful light wood interior. V-berth forward cabin, saloon w/nav station, double-berth aft cabin. Head w/shower. Hull solid fiberglass. New North RF jib, 2 genoas, jiffy-reef main, standing rigging new '11, Harken blocks and 2-speed winches, rigged for singlehanding, tiller steering, basic electronics. Volvo diesel w/low hours, dripless stuffing box, dry bilge. Exceptional cond. Annapolis, MD. $22,000.

Jervis Dorton
410-992-5218
jervisdorton@yahoo.com

Freedom 28
1980. Garry Hoyt-designed, TPI-built cat ketch. Well-found after 2-year refit. Rigged for easy singlehanding. All lines run to cockpit. Tacking or jibing as easy as turning the wheel. Shoal-draft access to quiet anchorages and thin-water coastlines. Decent windward performance. Excellent downwind wing-and-wing sailing. New in 2013: Awlgrip from mast to waterline, running rigging, blocks, electrical, plumbing, and propane systems. Many extras including Dyer 7-11 sailing dinghy. Narragansett Bay, RI. $32,500.

Arthur Lusignan
508-745-4192
alusig@verizon.net

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PHOTO BY RICHARD OLSENIUS

The boat was just part of the purchase

It came with 40 years of someone else's memories

BY CHRISTINE OLSENIUS

Over the course of 45 years we had purchased eight sailboats in what we assumed was the natural progression of boat ownership: start small and gradually move up in size, comfort, and complexity. In all those years, each purchase brought excitement and new adventures, but we were more attached to sailing than to any one boat. That all changed when we purchased our ninth sailboat.

Her name was *Essence*. She was a 40-year-old custom-built 35-foot Yorktown sloop, the dream child of neighbors Jerry and Bobbie Burnett. We had only to scan the broad deck or stand in the handcrafted teak interior to know this boat had been a labor of love.

The Yorktown is a kit boat dating back to the late 1960s. A company in Long Beach, California, sold sailors the unfinished hull-and-deck kits and owners finished the assembly, the interior, and the rigging on their own. For *Essence*, Jerry had brought his fine-tuned engineering skills and Bobbie her many artistic talents. The young couple spent 13 months finishing the construction and rigging, finally launching the boat in San Diego in 1974. A few years later, she was transported to the Gulf of Mexico and then sailed to Chesapeake Bay by way of the ICW.

Essence had been berthed in our community marina for as long as we had lived here, but we had never been on board. At 78 years of age, Jerry was in failing health, yet it had still taken him years to agree to sell *Essence*. It was a perfect late-summer evening when Bobbie invited us aboard for a glass of wine to "just have a look at the boat" before it was put up for sale. We were not in the market for a sailboat at the time, a fact I reminded my husband of before we accepted their invitation. But it took only one glass of wine and one look inside the teak-lined cabin and we were sold!

We spent the following summer pointing *Essence* toward our favorite anchorages on the Wye River, where the broad, open Chesapeake sky meets the low-lying farmland of the Eastern Shore. We reveled in the spacious deck and cabin, the ease with which the Yorktown handled the wind, and the wonder of roller furling. Gone were the years of changing the headsail while tripping over the bow and yelling instructions into the wind to a spouse on the helm who couldn't hear a word. And while I worked hard on my descriptive entries to the daily log, when I needed inspiration, I would randomly choose one of Bobbie's from earlier years, enjoying her tales of long-ago adventures.

One year after we purchased *Essence*, Jerry Burnett passed away. At his memorial, Bobbie displayed enlargements she had made of photos from their life together. Most of the photos were of Bobbie and Jerry on *Essence*. Most of the tributes were by people who had sailed on *Essence*, and her name came up again and again throughout the memorial. She had truly been an important focus of their life.

That was when it struck us that we hadn't bought a boat as much as we had inherited a legacy. *Essence* was her own life force, having embodied the dreams and adventures of one couple over nearly four decades of exploring. Now she would transition to embody our dreams and adventures, taking on the essence of our life.

Essence sails well to windward despite the wide beam that accommodates her roomy interior. Her original Perkins diesel still gets us through the midsummer doldrums and the Yorktown hull design still handles Chesapeake wind and waves beautifully. There is a lot of life left in this boat and more than a few new adventures. But whatever our future ports of call, we have learned something we never truly understood before, that when you purchase a boat, you become a caretaker of its history. We know that *Essence* has led a long, fulfilling life and we are proud to carry on her legacy.

Christine Olsenius has been sailing for 45 years, including a nine-month voyage through the Caribbean, cruising Lake Superior, the San Juan Islands, the Bay of Fundy, the southwest Coast of Ireland, and Chesapeake Bay. Her photographer husband, Richard, has taken a small boat up the Inside Passage from Seattle to Glacier Bay, and in 1988 crewed on Belvedere, *the first American yacht to sail the Northwest Passage West to East.*

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