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Sundog, the Pearson 36 lovingly restored by Ted Fullerton, in Hadley's Harbor, near Woods Hole, Massachusetts. Ted took this shot and others on Pages 4 to 7. He's a photographer as well as a fine craftsman.



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Our contributors



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(Transforming Sundog, Page 4) lives and writes in Swarthmore, Pennsylvania. He sails and fishes from his Victoria 18, Larke, out of the West End Boat Club in Essington, Pennsylvania, on the Delaware River.



Ted Fullerton (Transforming Sundog, Page 4) lives outside Philadelphia, where he is a commercial photographer, but he keeps Sundog in Massachusetts. He and his golden retriever, Magnum, enjoy meeting other sailors as much as they enjoy sailing.

Gregg Nestor (Hughes 25, Page 8; Quick and easy: Tool Leash, Page 72), a contributing editor with Good Old Boat, has had a lifelong interest in all things aquatic. His first book, All Hands On Deck: Become Part of a Caribbean Sailing Adventure, was written for children. A second book is in the works. Gregg and his wife, Joyce, cruise Lake Erie aboard Raconteur, a Pearson 28-2.

Vern Hobbs (Navigating locks, Page 12) and his wife, Sally, sail a 1974 35-foot Bristol cutter along Florida's Atlantic coast and the Intracoastal Waterway. Their day jobs pay the rent, but Vern's



work as a local artist specializing in maritime subjects finances the boat projects.

Ted Brewer (The Spray and her followers, Page 16) is a contributing editor with Good Old Boat and one of North America's bestknown yacht designers. He also is the man who designed scores of good old boats ... the ones still sailing after all these years.

Three-time circumnavigator, Hal Roth (Galley precautions, Page 22), has sailed 200,000 miles, much of the time with his wife, Margaret. He is the author of 11 books on sailing, including How to Sail



Around the World, The Hal Roth Seafaring Trilogy, and We Followed Odysseus.



Bill Barth (Fixing a sticky rudder, Page 26) has been messing around with boats for 40 years. He has done major restoration work on a friend's custom steel 57-foot sloop. He is currently upgrading a Cape Dory 28, which he sails on Lake Superior.



James Donovan (Another rudder, Page 29) has been a recreational sailor for 30 years. His first boat, a Venture 24, was replaced by a Grampian 26 and then a 30, which he is refurbishing. He charters in the Caribbean in the winter and sails the

Northeastern coast in the summer.

Bonnie Dahl (The

evolution of a cruising boat, Page 30; Superior cruising: Images from the greatest of the Great Lakes, Page 44) and her



husband, Ron, began sailing in the early 1970s. Bonnie has written three books: The Loran-C Users Guide, The Users Guide to GPS, and Superior Way: The Cruising Guide to Lake Superior, now in its third edition.

John Vigor (King of the pond, Page 35) is the author of 11 boating books including The Seaworthy Offshore Sailboat and Small Boat to Freedom. He is copy editor for Good Old Boat.





Thomas Brown (In love with LOWISA, Page 38) grew up sailing on Long Island Sound, Tokyo Bay, and the Great Lakes. He races a Sonar and is a partner in a Tom Wyliedesigned sloop, which he

races on Lake Superior.

Jim Martin (Transatlantic with eight kids, Page 40) does not remember a time before he was boating. His boats have included a Snipe, a Palmer Scott WoodPussy, a Penn Yan car top, a canoe,



a Sunfish, a Yankee Clipper 41, and a Columbia 43; he also has raced in intercollegiate and Chicago-Mac races, served in the Navy, and cruised for many years.

Don Launer (Mainsail Handling 101, Page 42), a Good Old Boat contributing editor, has held a USCG captain's license for more than 20 years. He built his twomasted schooner, Delphinus, from a bare hull and sails it on the East Coast from his home on Barnegat Bay in New Jersey.



Ed Lawrence (Nonsuch 30, Page 46) is a contributing editor with Good Old Boat. Adam the grizzly is a celebrity bear (and neighbor in the Montana outback) who occasionally

looks over Ed's shoulder during the editing process.

Lin Pardey (Long-distance cheeses, Page 51) and Larry are spending the northern hemisphere summer exploring Puget Sound and the Gulf Islands on Taleisin. During the southern hemisphere summer they



explore New Zealand waters on the 110year-old sloop, Thelma, which they have renovated. Lin has completed a revision of The Care and Feeding of Sailing Crew.





est, Alden and Morgan. Dale also races a J/22 with the oldest children, Rian and Eric, in Buffalo, New York.

Phillip Reid (An all-pur-

pose settee berth, Page 57), his wife, Andie, and certain other miscreants sail their 1977 Pearson 28, Miss Bohicket, out of Wilmington, North Carolina. They finished a five-year refit in the fall of 2005. When not



sailing, writing, or boat-grubbing, Phillip teaches a college history course.

Rick Smeriglio (Quick and easy: Curing anchor-line chafe, Page 71) started kayaking in southeast Alaska 22 years ago and too often cursed the frequently contrary winds. He moved up through a series



of small craft that put the wind to work. Currently he sails a comfortable boat of certain age from Resurrection Bay.



Sound. These include an Atkin Red Onion sloop, a 30-foot Alan Pape

steel cutter outfitted from a bare hull, an Atalanta 26, and five dinghies.

Jim Hawkins (Simple

solutions: Build your own cradle, Page 76) and Ellie Adams lived aboard their Baba 30 for an East Coast/ Bahamas year, followed by a return to their home port in



Lake Superior. They escaped the inland sea once more via the St. Lawrence Seaway.

Bill (and Liz) Ronstadt (Simple solutions: Downsized outboard, Page 78) of Tucson, Arizona, haul their 1976 Norstar Flicka, Sarafina, to the Gulf of California. Bill is a bassist, singer, and guitarist with several bands. Next project: fitting out a 16-foot Swampscott sailing dory.



Matthew Goldman



(Reflections: Flying a Jet 14, Page 89) became addicted to boating early. He has owned an assortment of small boats ("It followed me home. Can I keep it?"). His 26-foot sloop, *MoonWind*, is a 1970 Chris-Craft

Pawnee designed by Sparkman & Stephens.

The view from here

I've been workin' in the boatyard



Improper thoughts about the properties of bottom paint

by Karen Larson

The NICE THING ABOUT MANY ROUTINE boat jobs is that you can unplug your brain from the task at hand and allow it to wander freely. That's when creative thinking can happen. It wasn't all that creative, I suppose, and it ing on *Mystic's* bottom, which was (of course) well above me... in spite of common sense, in opposition to all laws of flotation and gravity, and particularly in spite of what seems proper in boats. Jerry tells me that bottom paint costs

So the paint blobs that were running back down the brush and down my arm were probably worth a dollar or two per run and splatter.

wasn't a long leap of the imagination that led me to contemplate the properties of bottom paint the other day in the boatyard. The thoughts I was thinking were not very charitable. Not just then anyway. I was in a sort of dark funk actually.

I was holding a paintbrush full of bottom paint upside down while work-

about 100 gazillion dollars for a gallon. So the paint blobs that were running back down the brush and down my arm were probably worth a dollar or two per run and splatter.

It was the runs and splatters I was contemplating while holding the brush upside down in defiance of gravity. "What is it about bottom paint, anyway?" I was wondering. In the past decade I had reduced the natty appearance of one pair of rubber boots, two pairs of boat shoes, and several pairs of socks with large black splots of paint. I had wrecked one Tilley hat and had just ruined a winter parka. The splatters on shoes and boots are easy to explain. A dripping brush, held upside down, will eventually lob drips on feet below it. And those feet aren't normally wearing little white coveralls like the rest of my body.

As for the paint on the Tilley hat and the parka, I have no one to blame but myself. But I also choose to blame Mystic for being low and very much in the way when one is encumbered with a paintbrush in one hand and a can in the other, a goofy white suit over all, and surrounded by a jungle of intertwined jack stands and scaffolding. Every so often I manage to stand too straight in a place that does not allow for straightening up. And there goes another hat (or worse, a wad of hair is artificially blackened). I could have had the little white hood on the little white Tyvek suit pulled up. But I did not. And then it was too late for recrimination. Best I can do afterward is rationalize that it wasn't my best hat anyway or it really was time to replace that coat. Now each had certainly been downgraded one level to the status of "work clothes."

"On the other hand," I thought glumly, "maybe I'm not looking at this properly. With the high price of bottom paint, these paint designs should be status symbols ... at least among boaters." So if you see me wearing that red parka with the black markings all over the hood, please note that I'm wearing it proudly. And the Tilley hat? It's the most comfortable of all my hats. I try not to wear it in public, but it's still my favorite. Besides, it's decorated with a black symbol of conspicuous consumption. It proves that we are boaters and proud of it.

This classic Pearson 36 whispered in his ear

by Hugh MacMullan Photos by Ted Fullerton

ransforming Sundog

ORA NEALE HURSTON NAILED IT when she wrote, "Ships at a distance have every man's wish on board." True. But do boats have wishes also? Surely *Sundog's* wish in July 2002 must have been to be owned and sailed by Ted Fullerton, a cheerful graduate of the I'd-better-do-it-myselfbecause-no-one-else-will-do-it-right university, a perfectionist who kept *Sundog*, a 1973 Pearson 36, virtually at his side while he lovingly made her better than new.

Ted had just sold his Wianno Senior Knockabout 25, *Sandpiper*, a 1928 beauty, in order to be a more responsible small-business owner and to care better for Magnum, a golden retriever he'd inherited from his father. It was his intention to be boatless for three years. But even the best intentions are sometimes difficult to honor. Two days after the sale of *Sandpiper*, he ran into an acquaintance at a convenience store, a woman who told him, "I have to sell my boat," and asked for his help. Ted agreed to check out the boat and give her his suggestions. He had a friend who might be interested.

The next day, Ted and the boatowner took the boat for a sail. The boat was in poor condition. Ted noticed the liberal use of house paint and duct tape. The battery was dead — they needed a jumpstart to leave the mooring — and after the motor began vibrating badly, Ted shut it down. But he noticed that the boat sailed well in brisk conditions. He managed to pick up the mooring singlehanded under sail in Wharton Creek on Chesapeake Bay.

Sense of wrongness

You already know what happened next. What led to the purchase, as Ted remembers it, was how well the boat sailed, her ample headroom below (he is 6 feet 4 inches tall), and his perfectionist's sense of wrongness about how the boat was being maintained. *Sundog*, a Pearson 36 lovingly restored by Ted Fullerton, improves the Massachusetts scenery at Nantucket Island's Brant Point Light.

The rest of us know, don't we, that the boat whispered in his ear, "We'd be good together. Look at how we managed that mooring pickup. We belong together, don't you think? You could name me *Sundog*, after Magnum and your favorite atmospheric phenomenon. If you fix me up, I'll sail fast for you, I'll point well." Ted had been boatless for the grand total of eight days ... \$6,000 sealed the deal.

Ted's sailing and boatowning credentials were nearly as laudable as *Sundog's* Pearson pedigree deserved. Ted's parents were Star racers. That's how they met. His father built and raced iceboats. Ted's first sail occurred when he was 2 weeks old. When he was 4, in 1962, Ted's family purchased Ted had been boatless for the grand total of eight days ... \$6,000 sealed the deal.

an Olson 35.5 at the New York Boat Show. They sailed it for months every summer in New England. A favorite family photo is of Ted, a 6-year-old capitalist, collecting trash for tips in the family dinghy in the Cuttyhunk Harbor.

Ted was 15 when he first bought his very own boat, a 1934 19-foot Chris-Craft runabout. It cost him \$25 and an assurance to the seller that he and his buddies would remove it from the VFW parking lot where it had died. One of his father's sailing friends gave Ted fiberglass resin and fabric, and he glassed the boat's bottom with it . . . his first major repair job. He bought the Wianno in 1992 for \$2,500. Ted says he "did everything and then some" to it, upgrading his personal repertoire of old sailboat rehabilitation skills. He sold the boat in 2002 for \$25,000 to someone who admired all the varnish.

Giant list

The first thing Ted did after buying *Sundog* was to make a giant list of everything that needed to be done to the boat. First, so he could easily single-hand her, he installed a Raytheon 4000 Autohelm. At the Annapolis Sailboat Show, he bought additional instrumentation, including wind speed, depth-finder, knotmeter, and a chart plotter, as well as a new mainsail, a 150-percent jib, sailcovers, and a Bimini.

He fretted over the vibrations under power and determined that there was nothing wrong with the engine, a Yanmar diesel with only 80 hours on it. Instead, he decided that there were repairable structural issues with its installation. While tackling that issue, he also installed a new battery box and two new batteries. He replaced halyards and sheets and painted the boat the colors he was considering.

That November he had her hauled and trucked to a spot behind Upper Bank Studios, his photography business in Media, Pennsylvania. He bought and assembled a giant prefabricated RV shed around the boat, adding adequate propane heat and lots of light. This enabled him to work throughout the winter. And so it was that during the 10 months between November 2002 and August 2003 *Sundog* and Ted really got to know each other.

During this time, Ted:

- Purchased a moisture meter and identified six major problem areas in the deck. After getting a \$23,000 quote to fix the deck, Ted fixed it himself.
- Pulled all deck hardware and sent it off to be re-chromed.
- Replaced all exterior wood (teak toerails, winch bases, trim, and grabrails) and built two new Dorade boxes.
- Made new hatchboards for the companionway.
- Installed new cowlings.
- Made Sunbrella Dorade box covers, grabrail covers, and wheel covers.
- Made Sunbrella winch-base and winch covers with magnets instead of snaps.
- Installed new stanchions and lifelines.
- Installed new portlights.
- Repaired hull damage discovered while replacing the toerails.
- Stripped the boat's bottom and applied seven barrier coats.
- Refilled and reglassed the damaged skeg.
- Installed inboard tracks and rollers for jib sheets.
- Purchased ash rollers for shrouds.
- Installed a new Edson steering column, including new cables.
- Sanded, primed, and prepared *Sun- dog* for painting.
- Found and hired a skilled marine spray painter from Oxford, Mary-

On the list of "wrongs" that Ted felt he had to address to make things "right" with his new boat were the slapdash repairs, at top, made with house paint and duct tape. He felt the boat that was to become *Sundog* deserved better. The soggy deck core also deserved and received Ted's attention, center photos. He also replaced all exterior wood including toerails, trim, grabrails, and winch bases, bottom.















land, to paint *Sundog's* deck and hull. Warned about a yellow hull's issues with bad luck and durability, Ted decided nonetheless to Awlgrip her a Fighting Lady Yellow.

- Sanded, primed, and painted *Sun-dog's* mast and boom a bright royal blue.
- Devised and painted *Sun-dog's* unique stern logo.
- Reinstalled the newly chromed deck hardware.
- Epoxied (six coats) and varnished (seven coats) all exterior wood.
- Installed a new oversized stainlesssteel sink.
- Installed new interior lights.



• Purchased 35 yards of moss green Ultrasuede and found a seamstress who would recover the interior cushions for him.

Sundog went into the water in Essington, Pennsylvania, in August 2003. She and Ted sailed to New England. For

By mid-October, *Sundog* was hauled, trucked, and back under the shed. It was boatwork time once again.

> three weeks, they sailed to Nantucket, Martha's Vineyard, Cuttyhunk, and Padanaram, Massachusetts, reprising Ted's childhood summers. During this time Ted learned *Sundog's* approach

to sailing and revised his to-do list. By mid-October, *Sundog* was hauled, trucked, and back under the shed. It was boatwork time once again.

That winter, Ted:

• Installed a rudder reference guide to enhance the Autohelm's perfor-

mance.

- Installed a propane fireplace.
- Insulated the cabin and installed varnished ash strips on interior surfaces.
- Cleaned, sanded, and oiled all the interior teak.
- Replaced all the interior Formica.
- Carpeted the interior of most storage spaces.





- Installed a stainless-steel-and-teak swim ladder (at his mother's request).
- Installed a ship-to-shore radio.
- Installed a satellite radio.
- Built a birch cabinet to house the ship-to-shore and satellite radios.
- Purchased two additional batteries and installed them in a specially fabricated box in the engine compartment.
- Reinforced the engine box with a floating structural beam.
- Installed a raw-water washdown system.
- Painted the interior.
- Installed a new 42-gallon fuel tank with a fuel polishing system.

Ted and *Sundog* had a full season of sailing in the summer of 2004. She turned heads in Block Island, Cuttyhunk, Martha's Vineyard, Nantucket, and Padanaram that summer. Ted's favorite compliment was delivered by an old-timer in Padanaram — home of Concordia Yachts — who reckoned the Pearson had "the best-looking varnish in the harbor." Ted's favorite moments of sailing were when *Sundog* twice sailed faster than theoretically possible boat speeds, managing more than 10 knots under spinnaker.

The next winter, Ted:

During the winter of 2004-05, Ted got around to the smaller items on *Sundog's* wish list. That year he:

- Installed exotic anaconda marble behind the heater flue.
- Installed a mahogany panel with barometer, tide clock, and Pearson plaque next to the fireplace.
- Installed a wine rack in a bit of space he found under the nav station.
- Made an oversized coffee-cup holder, a replica of one he had admired on a Hinckley.
- Replaced the head.
- Added a ship's lantern and clock.
- Re-routed the mainsheet, spinnaker halyard, and uphaul through a teakbased triple-rope clutch in order to access a new winch just forward of the wheel.

Last winter (2005-06), Ted:

- Added a Raytheon 6000 Autohelm, leaving the 4000 Autohelm in place as a backup.
- Installed a new front hatch.

- Added a dodger with a fly to the existing Bimini.
- Installed a maple cabin sole, with teak accent strips.
- Purchased a light shade for the hatch.
- Installed a deck-mounted light prism to light the head.
- Replaced the acrylic on the center hatch.
- Reinforced the forward keel bolt bulkhead.
- Fabricated and installed a teak cowling shutoff.

Including the purchase price, Ted has spent about \$48,000 on *Sundog*. He's also logged about 2,200 personal manhours on "getting it right," as well as developing invaluable relationships with folks who invariably went out of their way to help. He awards the Fullerton Above-and-Beyond Award to Dennis Johnson at Mobile Marine, Cheryl Gerfin at Defender Marine, Winston Savage at Raytheon's Tech Support, and Paul Linehan at Jamestown Marine. *Sundog* is at last 100 percent Ted's boat, with all of his wishes aboard.

A better-than-new Pearson 36 — a yellow and blue beauty — will be in New England every summer from now on. If you see a tall guy with a golden retriever aboard, you'll know she's *Sundog*. The newly refinished exterior wood and the interior (complete with Magnum in the sun spot on the V-berth), at top on facing page. After a multi-year refit, Ted drinks a toast to his new, more comfortable surroundings, and *Sundog* gleams in the reflection of a Dorade vent, below left on facing page. This page: *Sundog* sails the Eastern Seaboard, at top, and Magnum, *Sundog's* real captain, below.







Hughes Boar Works Limited was the largest Canadian sailboat manufacturer for several years, building a total of approximately 3,500 sailboats. One of its earliest models was the Hughes 25, which was designed by Howard Hughes and went into production in 1968. Described in company literature as "Our Swinger! A fast, pretty, family boat ...", the Hughes 25 is a versatile pocket racer/cruiser with sweet lines and surprising performance.

In 1963, brothers Howard and Peter Hughes of Willowdale, Ontario, formed a partnership to build dinghies ranging from 8 to 16 feet in length. Their venture was successful, and in 1965 they relocated Hughes Boats to the Toronto suburb of Scarborough. There they began building larger sailboats. These included the Hughes 24 (using tooling purchased from Tanzer), the Hughes 27 (designed by Howard), and the Hughes 38 (a Sparkman & Stephens design). On Feb. 23, 1967, Hughes Boat Works Limited was formally incorporated and registered with the province of Ontario. In 1968, the company relocated to Huron Park (Centralia), Ontario, where larger manufacturing facilities, including a test tank, were located. Our review boat, the Hughes 25, along with the 22 and 29 (designed by Howard) and the Hughes 38 and 48

(designed by Sparkman & Stephens) *all* went into production in 1968.

In 1969, the company was bought by U.S. Steel and the name was changed to Northstar Yachts Limited. The brothers stayed on with the company until 1971. Between 1971 and 1975, Northstar introduced six Sparkman & Stephens designs ranging from 25 to 38 feet and a pair of boats (24 and 30 feet) designed by Bruce Farr. All of these models were racers, and one won a guarter-ton world championship. Despite the boats' pedigrees and racing prowess, however, on Dec. 10, 1975, Northstar Yachts Limited was formally listed as canceled/inactive by U.S. Steel.

Howard Hughes purchased Northstar Yachts in 1977 and renamed it Hughes Boatworks Inc. Deciding to focus on family cruisers rather than racing, he sold the Farr-designed tooling, modified several of the Sparkman & Stephens designs, and also began molding hulls for Tartan Yachts. Business was good.

Around 1979, Howard bought Columbia Yacht Corporation, renamed it Hughes-Columbia, and relocated its production facilities to Canada. Seven new models, called Hughes-Columbia, were soon introduced using designs by Alan Payne and Bill Tripp Sr. Production of the five Hughes models (the previously reworked Sparkman & Stephens designs) continued simultaneously.

Unfortunately, prosperity did not last. Hughes-Columbia went into receivership and the factory was closed in 1982. This was largely due to the debt incurred by the acquisition of Columbia Yachts and compounded by a deep recession and high interest rates. With interest rates around 18 percent, sailboat sales plummeted. Aura Yachts purchased the business but was unsuccessful in making a go of it.

Howard Hughes again entered the picture and bought the assets after the failure of Aura. He began building a custom 41-footer in an Orangeville, Ontario, facility. Fire destroyed the plant in 1991 and the insurance company turned out to be fraudulent, leaving Howard emptyhanded. At this point, most tooling for the boats had been moved outside of the plant, where it remains to this day.

The phoenix arose from the ashes no more.

Design and construction

The Hughes 25 has a relatively straight sheer that harmonizes well with the low chin of the bow and the relatively long counter with reverse transom. The cabinroof line increases slightly in height as it runs aft. Matching-height portlights complete and complement the boat's traditional aesthetics.

The boat has a fin keel with a long, tapered leading edge and some deadwood aft fairing into the hull. The rudder is a balanced spade raked aft. In the late 1960s each of these appendage types was thought to increase speed but have since been dropped in favor of more vertical keels and rudders.

Beam is a lean 7 feet, 6 inches. Coupled with just 3 feet, 3 inches of draft, it makes for a tender hull form. The displacement/length ratio is a moderate 234, and the sail area/displacement ratio is a whopping 20.8.

The hull and deck are constructed of fiberglass. While the hull is a solid hand laminate, the one-piece deck molding is a fiberglass sandwich with a core of end-grain balsa. End-grain balsa is extremely light and highly resistant to crushing. It also affords good insulation against heat, cold, and sound. The downside is that if it gets wet, it turns into mush and delamination of the skins occurs.

The hull-to-deck joint is a box joint, where the deck fits over the hull much like the lid on a shoebox. The hull and deck are bonded with adhesive and mechanically fastened with pop rivets on 2-inch centers. On the outside, the joint is covered with an aluminum rubrail.

The interior structure is a onepiece fiberglass pan that incorporates all berths, the countertops, and the cabin sole. Wooden ribs that have been fiberglassed to the hull along with the bonded-in pan and fiberglass headliner complete the structural package.

All deck fittings are through-bolted and most are set with aluminum backing plates. The fin keel has 1,600 pounds of lead ballast mounted externally with ½-inch stainless-steel bolts. The spade rudder is solid fiberglass molded around a stainless-steel rudder post. Tiller steering is standard.

On deck

The narrow foredeck is relatively free of clutter except for a central cleat and a pair of large closed chocks. Its







On facing page, Pat McCann and S.S. Darling, a 1973 Hughes 25, hull #48, ghost along, showing a traditional and pleasing profile. This page: Darling's foredeck, top left; lazarette with engine well and storage for the fuel tank, center left; and a 7-foot-long cockpit with good back support and leg bracing capabilities, bottom left. The images below show the tabernacle with seven fore-andaft positions, at top; sheet winch without handle installed, center; and the builder's nameplate, bottom.









stainless-steel bow pulpit is connected via single lifelines and 23-inch stanchions to the stern pulpit. Even though there are 4 feet of teak handrail on the cabintop and a molded-in toerail, the combination of outboard shrouds and narrow sidedecks makes fore and aft movement challenging. On top of the cabin, forward of the mast, is an opening hatch that leads to

surface and that of the 9-inch-wide

sidedecks is molded-in non-skid. The

mast, is an opening hatch that leads to the V-berth below. On the cabin sides are six fixed portlights. Four smaller propeller aft of the rudder and makes for easy maneuverability.

Stern docking hardware includes a pair of 8-inch cleats plus a pair of closed chocks.

Belowdecks

The Hughes 25 was offered in two interior configurations, each with berths for five. Both arrangements incorporate a V-berth separated from the main cabin by a bulkhead. Interior Plan A features opposing settee berths in the main cabin, followed by an aft galley to

The Hughes 25 was offered in two interior configurations, each with berths for five.

ones are forward and two larger ones are aft. There is no sea hood protecting the sliding hatch at the companionway. Making one would be a good upgrade.

The cockpit is a generous 7 feet long and features 10-inch coamings that provide good back support. The boat's narrow beam translates into a narrow footwell that affords good bracing when heeled. There's a bridge deck and a pair of scuppers connected to bronze seacocks to remove water from a pooped cockpit.

The relatively long counter houses a lazarette, which incorporates an engine well and stowage for a 6-gallon fuel tank. This arrangement places the port and a quarter berth to starboard. Our review boat was configured with Plan B, fitted with two quarter berths and a single starboard settee berth. The port settee berth was replaced with the galley and a seat. All berths are a minimum of 6 feet long.

In both layouts, the galley consists of a single stainless-steel sink with manual pump; a 4-cubic-foot frontloading icebox; a teak rack for glasses, plates, and silverware; and a space for a cooktop. The potable water tank holds approximately 3 gallons and the sink drain is connected to a bronze seacock. The table, a fold-up affair, is an integral part of the companionway steps.







Beneath the V-berth are three stowage lockers and the portable toilet, which is plumbed to a deck pump-out fixture. Even though the V-berth and head are forward of a full bulkhead, there were no factory provisions for a privacy door or curtain.

There's plenty of stowage beneath the settee berths, plus along the 10plus feet of fiddled shelving situated outboard and above both sides of the main cabin.

The majority of the interior surfaces are off-white gelcoat. The bulkhead and table are marine plywood veneered in teak. The trim and accents are solid teak. The sole is carpeted. Headroom in the main cabin is 4 feet 10 inches.

The rig

The Hughes 25 is a single-spreader masthead sloop with a 145-square-foot mainsail and a 155-square-foot foretriangle, yielding a total sail area of 300 square feet.

The mast and boom are aluminum extrusions with internal sail tracks. The mast is stepped on deck. In an unusual but very helpful feature, the cast aluminum tabernacle features seven fore-and-aft mast positions so weather or lee helm can be corrected. The tabernacle also allows for fore or aft raising and lowering of the mast. The standing rigging is ⁵/₃₂-inch 1 x 19 stainless-steel wire and with single uppers, double lowers, and a single backstay. The boom is fitted with worm-drive roller reefing.

Sail controls consist of two 9-foot, 6-inch genoa tracks and cars situated on the port and starboard toerails. These lead the sheets to small sheet winches and their associated cleats. Mainsail sheeting is end-boom and is connected to a traveler aft of the tiller. All halyards are external, double-braided Dacron and cleated at the mast.

Under way

The Hughes 25 is a very satisfactory first cruiser. Its large cockpit and roomy

Facing page: the cabin table is integral to the companionway steps, left-hand column; the galley in *S.S. Darling's* Plan B configuration, center; her bunks sleep five 6-footers, right (two quarter berths are not visible). The toilet is beneath a V-berth cushion.



Hughes 25

Designer: Howard Hughes LOA: 25 feet 2 inches LWL: 19 feet 0 inches Beam: 7 feet 6 inches Draft: 3 feet 3 inches Displacement: 3,500 pounds Sail area: 300 square feet Ballast: 1,600 pounds Headroom: 4 feet 10 inches

interior make for a comfortable pocket cruiser. Its 3-foot 3-inch draft allows for gunkholing. Initially, the boat is tender and quickly heels, but as soon as it reaches 15 degrees or so it stiffens up nicely. This is typical of boats designed to the CCA (Cruising Club of America) Rule. These boats have shorter waterlines, but as soon as the boat heels, the sailing length increases, along with an increase in boat speed. The low wetted surface area and high-aspect-ratio sail plan also make for speed.

When the winds pick up above 15 knots or so, it is prudent to take a tuck in the main. Forget the roller reefing and install slab reefing.

The combination of a fin keel and spade rudder makes the boat responsive and able to point well, while the outboard shrouds take some of that gain back by limiting the sheeting angle.

At present, only four Hughes 25s are being actively raced, mostly in fleets around the Great Lakes' regions of Canada and the U.S. Their PHRF numbers vary only a little — between 225 and 231. That's quite a bit quicker than the very similar Cape Dory 25 at 261, and slower than the much more modern J/24 at 171. A Catalina 25 averages around 225. Given its age, the Hughes 25 acquits itself quite well.

With the engine in a well and the propeller aft of the rudder, maneuverability under power is good.

Things to check out

The newest Hughes 25 is more than 30 years old, and age-related issues should be readily apparent. One of the most insidious problems is delamination of the balsa-cored deck. This is caused by water that has found its way into the core through a damaged outer fiberglass skin or from beneath poorly bedded hardware. Regardless of how it got inside, this is not good. Delaminated areas sound dull and hollow when struck by a plastic hammer or the handle of a screwdriver.

A small area of delamination can usually be fixed or, if allowed to dry out, left alone. However, extensive delamination must be addressed and can be costly. The cost for a major repair of this type is probably more than the value of the boat. If you don't want to do it yourself (since your hourly rate costs you nothing), it's better to keep looking for another boat.

Check for mast compression. Look for signs of cracking, bending, or movement in the supporting bulkhead beneath the mast. Investigate the hull-to-deck joint. This box joint can be easily damaged by a side impact with a dock or piling. Look for gelcoat cracks, a damaged aluminum rubrail, or a waviness to indicate that such an impact may have taken place.

Summing up

The Hughes 25 is a responsive racer and coastal cruiser. If you race, it'll be competitive. If you cruise, it'll be reasonably comfortable and dry. If you're a novice, you'll find that the Hughes 25 is easy to handle and quite forgiving. The boat performs well in light air, but benefits from a reef when the winds pipe up. Its lines are appealing and the size of its cockpit is generous. You can pick one up for about \$2,500.

Resources

Hughes discussion group <http://www.sailcaddy.com/ bulletin.htm>



How to avoid panic when locking through

HEN WE CONTEMPLATE SAILING, OUR THOUGHTS RUN TO images of open, uncluttered waters. In our idyllic daydream we see full, white sails running before a steady breeze on a blue sea. Nowhere in our lovely fantasy do we see the confines of a navigation lock.

Dealing with locks is not part of my *romantic* vision of sailing, but sometimes it is very much part of the *reality* of it. A shortcut across the Florida peninsula or the Isthmus of Panama, as well as a cruise through the Great Lakes, will involve passing through locks. The prospect of locking may



The cleat hitch is not a good idea when locking; it tightens under load. Lines must be able to adjust to a boat's rise and fall.

be intimidating, but a bit of understanding, preparation, and basic seamanship will see you through.

by Vern Hobbs

Navigation locks are among mankind's longest-standing engineering achievements, dating back to the Renaissance. Locks are simply marine elevators used to move a vessel from a body of water at one height to a body of water at a different height. Over the centuries, civil engineers have developed many ways of building locks, from the very simple to the amazingly complex. Regardless of design, all serve the same purpose.



A safe hitch requires the bitter end to be held so the line may be let out or hauled in as the boat rises and falls.



Start by identifying the best resources

If there is a lock passage in your future, a good place to start is the nautical chart. Locks are depicted on the charts with the word "lock" and a notation of the width and length of the lock chamber. Larger-scale insets with more detailed printed data are often also presented. Sailors should evaluate overhead clearances as well. Power lines, gantries, and bridges are commonly found at or near locks.

More detailed information, including hours of operation and special usage rules, can be found in the appropriate United States Coast Pilot. This series of handy publications supplements information contained on nautical charts and is published periodically by the National Oceanic and Atmospheric Administration (NOAA). Coast Pilots are numbered to correspond with the Coast Guard district to which they apply. The most current editions may be purchased from NOAA chart agents or online at http://www.noaa.gov.

Temporary changes to the operational schedule or status of locks will be published in the Coast Guard's Local Notices to Mariners. Local notices are no longer distributed in paper form, but they may be viewed online at <http://www.navcen. uscg.gov>.

While Coast Guard and NOAA publications provide a great deal of information, it is important to note that most locks in the U.S. are operated and maintained by the Army Corps of Engineers. This agency offers a wealth of information about lock navigation at <http://www.usace.army.mil> and in printed publications, mostly free, that may be obtained by writing to: Commander, USACE Publication Depot, 2803 52nd Avenue, Hyattsville, MD 20781, Attn.: CEIM-IM-PD. In addition to general information, details about specific facilities and the procedures mariners should employ at them are provided.

The nation's second-largest operator of locks is the New York State Thruway Authority, which maintains the extensive New York State Canal System. This network of rivers and canals includes the fabled Erie and Oswego Canals, and it allows passage between the Great Lakes and the Atlantic Ocean through the Port of New York. Charts, schedules, regulations, and other vital information may be accessed through its website: http://www.canals.state.ny.us/>. Outside the U.S., locks are operated by a variety of private and governmental agencies, many of which impose stringent rules, schedules, and substantial fees for lock usage. A current cruising guide, an Internet search, and contact with cruisers who have recently used such facilities are all good resources.

Prepare your crewmembers

Preparation and forethought are the first steps toward a safe, trouble-free lock passage. Making the boat and crew ready for a lock is not unlike preparing to enter a crowded marina. Think through the process and allow adequate time to have everything ready before reaching the lock.

A sailboat crew should take the following steps to prepare to lock through:

- *Revert to auxiliary power*. Start your engine, break out your oars, or call the towboat. Sails are useless and hazardous inside a lock chamber. Give your engine time to properly warm up, and check the operation of your forward and reverse gears.
- *Take prudent precautions*. Locking will require a lot of on-deck activity, which increases the risk of a crewmember falling overboard. Crewmembers should wear PFDs. Throwable rescue devices should be made ready for quick use. The crew must be able to move about freely. Sails, lines, and any unnecessary equipment should be stowed and secured.
- *Prepare equipment*. Fenders should be generously set along both sides of the boat. You may be required to moor to either side of the lock chamber or possibly even to raft up to another vessel. Corps of Engineers publications recommend a minimum of two 50-foot mooring lines, positioned fore and aft, loosely coiled and ready for use. A springline is also a good idea. In some locks mooring lines

Be observant of signs and signals as you approach the lock, above at left. Instruct your crew to judiciously use lines to maneuver into the mooring point, center. Don't be afraid to use fenders generously when locking, at right.

Locks are simply marine elevators used to move a vessel from a body of water at one height to a body of water at a different height.

will be provided, but the prudent skipper will have his or her own lines ready should these "public lines" be unavailable or unserviceable. A stout boathook should be within reach of each crewmember who will be handling mooring lines. At least one member of the crew should have a sharp knife available in case a line needs to be cut.

• *Make a plan and then share it.* Evaluate wind and current and how each of these factors might affect your boat. Remember that structures in and around the lock will influence both these forces. The filling and emptying of the chamber will invariably create turbulence and strong undertows. Anticipate them and be prepared to react.

Visualize how you plan to moor once inside the lock; for example, you might want to make fast your stern lines first, to check your way from a following current. Once you've made your plan, share it with your crew. Everyone must know what to do and when. Be certain that everyone is able to communicate. Review the commands you intend to give to signal which actions. Consider that voices may be difficult to hear over the length of the vessel. Work out and rehearse some simple hand signals. Finally, remind your crew about general precautions to observe while handling docklines and mooring to structures, especially if you have novice crew or non-boat-savvy guests aboard.

Proceed toward the lock

With boat and crew prepared, you are ready to proceed toward the lock. Identify and follow the marked approach channel so your vessel will remain clear of hazardous areas and will be correctly positioned to enter the lock.

Locks operated by the Corps of Engineers display an "Arrival Point" sign approximately one-quarter mile from the lock. Upon reaching this marker your boat has officially entered the lock approach. If your boat and crew are not completely prepared, stand off just beyond of this point until they are. The arrival point marker is your cue to contact the lock operator by radio.

Operators normally monitor VHF Channels 16 and 13 and may also use other working channels. State the name of the lock, your boat's name, and the VHF channel you are using. If your initial hail is made on Channel 16, expect to be directed to the preferred working channel. Once contact is established, state your position in relation to the lock and your request to lock through. If you have any questions, concerns, or specific requests for assistance, include them in this transmission.







Once you are moored, the lock gates close behind you...

Monitor the working channel

Listen carefully as the lock tender returns your call. He or she will relay important information such as rise and fall of the water level, waiting time, where and how to moor, and signals to listen or watch for. Continue to monitor the working channel until the lock passage is complete.

If you are unable to hail the lock by radio, sound two long and two short blasts with your whistle or horn. Listen for the same signal in acknowledgment and then for verbal instructions delivered by loudhailer. Regardless of your method of communication, remain observant of sound and light signals and posted signs.

Depending upon traffic and other factors, you may be directed into the lock immediately or asked to wait. If delays are encountered, position your boat in the channel to allow safe passage of traffic exiting the lock.

The objective here is to safely transfer positive control from the helmsman to the line handlers.

... and the lock gates ahead open as water flows in.

necessary, when the boat rises or falls with the water level. Avoid the use of full figure-eight hitches or other knots that will tighten under load.

If you are using your own mooring lines, insure that one end is tied securely to the boat. Pass the other end loosely around the cleat or mooring bit on the lock structure and hold the bitter end, allowing the line to be easily adjusted as the vessel rises or falls.

A springline is useful in maintaining your boat's position and managing the loads on the bow and stern lines. A springline becomes indispensable if you are singlehanding. It is impossible for singlehanders to tend all lines at once. If you

> are in this situation, tie off with enough slack to afford time to move about and reset lines as the water level changes.

When the lock cycle is complete, the operator will signal

The operator may assign priorities to vessels waiting to enter the lock. Corps of Engineer lock operators will give government and commercial vessels priority over pleasure craft. Priority may be based on vessel size, cargo, and mooring accommodations.

When the lock is ready to receive vessels, the operator will give the appropriate signal audibly (by radio, loudhailer, horn) or visually (using lights). Enter the lock slowly but with enough power to maintain steerageway. The helmsman must be alert to changing current and wind conditions, other vessels, and any directions from the lock operator. Deck crew must be in position with their mooring gear ready.

Go far forward

Unless the operator provides specific mooring instructions, proceed as far forward in the lock chamber as is safe. This allows space for following vessels. Select a mooring point with regard to the availability of cleats or mooring bits, the position of other boats, and the lock operator's instructions. Bring the boat to a stop, or near stop, and signal your deck crew into action. The objective here is to safely transfer positive control from the helmsman to the line handlers. Communication is paramount.

If the lock provides mooring lines, bring them aboard and secure a line at the bow and another at the stern by passing each line around a cleat and then holding the loose, or bitter, end. This will allow a line to be let out or hauled in, as for vessels to exit the chamber. As you leave, remember the effects of wind, current, and the actions of other skippers. Communicate concisely with your deck crew. Likewise, ask your crew to clearly signal when their lines are free and secured.

Depart the lock as you entered: slowly but with good steerageway. Keep to the marked channel, avoiding any hazardous areas. When you pass the "Arrival Point" marker directed toward the traffic coming from the opposite direction, your lock passage is complete. Switch your radio back to Channel 16, stow the mooring gear, and get back to living out that idyllic daydream of the sailing life.

Resources

Locking Through, an informational brochure published by the U.S. Army Corps of Engineers, Jacksonville District

NOAA United States Coast Pilots

Online sources of information

<http://www.usace.army.mil> <http://www.canals.state.ny.us/> <http://www.noaa.gov> <http://www.navcen.uscg.gov>

Ted Brewer compares three well-known circumnavigators

by Ted Brewer

T WILL BE THE RARE READER OF GoodOld Boat who has not heard of Captain Joshua Slocum and his famous yacht, Spray. However, for those who are new to sailing, I will say that the good captain, a craggy Nova Scotian skipper of three-masted ships, and his rugged 37-foot yacht were the very first to circumnavigate the globe singlehanded. Joshua Slocum left Boston in April 1895 and arrived home in June 1898 after a three-year voyage that was leisurely and adventurous and also extremely dangerous and arduous in turn.

To research this article I took the hull lines shown in Slocum's book, Sailing Alone Around the World, and enlarged them to a workable size. From that I was able to calculate Spray's displacement, along with the other factors that I needed in order to relate her characteristics to those of other yachts that have successfully circumnavigated. It was an eye opener. I'd never thought of Spray in yachting terms but more as a sailing legend. Also, I never felt that she was the ideal bluewater cruiser either, and my investigations tended to reinforce this opinion.

Unintended circumnavigator

Certainly, Spray was never intended for offshore cruising, definitely not for extended ocean voyages. She was built in Delaware in the early 1800s as an oyster sloop. Over the ensuing years, Spray migrated to New England where she was used for inshore fishing and oystering in the waters of Connecticut and around Cape Cod and Boston. As Joshua Slocum was born in Nova Scotia in 1844, it is quite possible





followers

Spray illustration from Slocum's book, Sailing Alone Around the World, at left. Humoric 35, at right. The Spray and two other boats that circumnavigated, below. Legh II was the Colin Archer-type double-ender sailed by Vito Dumas. Nomad was an aluminum version of the steel Huromic 35 cutter. She was sailed by Ed Arnold.

that he and *Spray* started life about the same time. In that case she would have been about 48 years old in 1892, a ripe old age for a wooden boat in those days. But it is also possible that she was much older. In any case, the tired old fishing boat was propped up in a field in Fairhaven, Massachusetts, and covered with tarpaulins when Slocum first set eyes on her.

Indeed, *Spray* was virtually a derelict when she was given to Slocum by a friend, more or less as a practical joke. However, the captain turned the tables on his joker friend by taking the gift seriously and spending the next two years completely rebuilding the old boat, timber by timber, until there was hardly a piece of the original left.

Unfortunately, we have no idea of *Spray's* configuration before he began



work on her. It is probable that the area of her aftercabin was an open cockpit and fish hold when she was a commercial fishing boat. By closing in this space with a trunk cabin, Slocum greatly increased the boat's livability as well as her survivability in extreme conditions.

New all over

The law says that a vessel that is repaired piecemeal and never completely broken up for salvage is still the original vessel. That is exactly what Slocum did to his "gift." He restored her from the keel up, replacing every one of her rotted timbers with good sound wood. Thus, the newborn *Spray* was sound as a nut from her new oak keel to her new oak frames, her new Georgia pine planking, her new white pine deck, and her new spruce spars. If any of her original timbers remained in the *Spray* after this "repair" work, the captain does not mention them.

Slocum fished the boat for a season after restoring her but readily admits he was not the world's most successful fisherman. It must have been about that time that the idea of a singlehanded circumnavigation took hold. So, in April 1895, Slocum departed Boston and sailed to New Gloucester to stock up on supplies. In May he voyaged to Nova Scotia, to the town of Westport where he met some of his old schoolmates, and finally, on July 1st, he set sail for Gibraltar. The rest is yachting history and a wonderfully interesting book that has inspired many followers.

After the completion of his epic three-year circumnavigation, Captain Slocum and the *Spray* became famous and quite justly so. However, over the years this fascinating tale of his travels has deluded many yachtsmen into assuming that the *Spray* is the ideal vessel for such a voyage and that they are every bit as capable as Joshua Slocum in handling the many dangers that can and will arise. Unfortunately, neither assumption is necessarily true.

The table on Page 20 shows Spray's particulars, along with those of Vito Dumas' Legh II and Ed Arnold's Nomad, two other yachts that circumnavigated. I selected those two boats for comparison with Spray because both boats made solo circumnavigations and — like Slocum — their skip-



pers took the southern route rounding Cape Horn and Cape of Good Hope. I must emphasize that in saying "rounding Cape Horn," I include making the passage via the Strait of Magellan, as that was Slocum's route. Unfortunately, I have been unable to discover if Dumas actually rounded Cape Horn but Arnold did... in both directions!

Dumas and Legh II

Aboard *Legh II*, Dumas circumnavigated from west to east in 15 months, from June 1942 to September 1943, with stops at Cape Town, Sydney, and Valparaiso, Chile. This was during World War II so Dumas, an Argentinian, wisely stayed well south to avoid being caught in the war at sea. This





The Humoric 35 like Nomad

greatly shortened the mileage he covered but also meant that Dumas was sailing in some of the world's windiest and roughest waters. *Legh II's* sail area/displacement ratio seems extremely low when compared with the other two, but it is well suited to a solo skipper sailing through the gales and high seas of those far southern oceans where Dumas laid his course.

Legh II's hull was that of a doubleended Colin Archer type and, although I do not have her actual lines drawing, the lines of a typical Colin Archer are shown at left for comparison with the others. Note the deep dead rise of her sections, so very different from Spray's shoal and beamy hull.

Arnold aboard Nomad

Ed Arnold, aboard Nomad, actually singlehanded the Horn twice. He had already cruised to the Azores when he decided to tackle the Horn, so he kept on from the Azores to Alaska, via Cape Horn, and he enjoyed it! Indeed, Arnold enjoyed it so much that he decided to solo Sitka-to-Sitka via the Capes. He rounded the Horn again, west to east this time, and returned to Sitka in September 2002, after taking just 11 months for the remarkable 27,000-mile voyage. His only stops were in Cape Town for repairs to Nomad's bowsprit after striking a bergy bit and in Australia for repairs to the radar. Interestingly, Nomad is an aluminum version of the steel Huromic 35 cutter, one of which, the Globe Star, also rounded the Horn west to east in the early 1980s. Globe Star was skippered by Marvin Creamer on a very unusual circumnavigation made without the use of navigation instruments.

The reader will note Spray's incredibly heavy displacement. It's the heaviest I've ever run across in a sailing yacht of her size, well over twice that of the average modern 37-footer. Spray's displacement/length ratio of 541 almost makes the husky Colin Archer seem like a lightweight racer. With her 14-foot beam and that heavy displacement, Spray would have tremendous initial stability and would be a difficult boat to capsize. Indeed, I have been aboard an authentic replica, the Joshua, owned by my friend Bill Harpster. It's like walking on a city sidewalk; the boat simply does not seem to move as you walk around her decks.

That very heavy **aim** displacement also contributes greatly to motion comfort since a heavy boat will not scend, or rise, as quickly as a lighter, corkier craft when a large sea passes beneath it

Ballast questions

Spray's ultimate stability is questionable, though, as little is known about her ballast except that it was all inside. But was it lead (unlikely), iron (possibly), or stone (probably)? And was it strongly fastened in place to prevent shifting (probably)? Unfortunately, Spray was lost at sea in 1909, so these questions must remain unanswered. Her great initial stability made it unlikely she would be capsized, especially given the skills of her skipper. However, if Spray were capsized by a freak wave or that ultimate storm, she would not right herself in a hurry and, if her ballast shifted, it is highly unlikely she would recover at all. Marvin Creamer's Globe Star was capsized in huge seas

Spray's displacement/length ratio of 541 almost makes the husky Colin Archer seem like a lightweight racer.

off Tasmania but recovered, thanks to fixed ballast, a reasonably low center of gravity, and more moderate beam. She went on to successfully complete the circumnavigation.

Spray's performance under sail has also been the subject of much speculation. She has a very reasonable sail area/displacement ratio, quite ample for ocean voyaging, but there are a number of factors that work strongly against her windward ability. Bill Harpster has cruised the west coast aboard his Spray replica from Mexico to Alaska numerous times. Bill told me that Joshua would point to windward at 45 degrees, but I think Bill was exaggerating slightly as proud owners tend to do. He did admit that she was slow when pinched that hard and admitted that Joshua was much happier at 55 degrees when beating to windward. That I can believe.

Spray's very blunt bows, her shoal draft, the lack of an efficient lateral plane, and

her low-aspect-ratio gaff rig all combine to reduce her speed and weatherliness. Her 53-degree half angle of entrance (the angle formed at the waterline by the hull and the centerline) is incredibly large. I have never seen a waterline that bluff on a sailing yacht before and can only imagine something like it on, perhaps, a chunky Dutch Boeier (see Good Old Boat, September 2000) plowing through the steep waves of the Zuider Zee. Such a full bow certainly would not be conducive to speed to windward in a choppy sea. Too, Spray's very shoal draft, along with her lack of a salient keel or centerboard, would do little to reduce leeway.

Pointing ability

Finally, the low gaff rig simply would not provide the drive to windward of a tall and efficient Bermudan sloop or cutter. So *Spray* would be a slow



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1-800-959-7245 Hours: Monday through Friday 8:30 to 5:00 Pacific Time Visit Our Online Store At catalinadirect.com boat, pointing up barely 55 degrees and making lots of leeway when hard pressed to windward. Nomad, on the other hand, with her more effective lateral plane and taller Bermudan rig, would sail circles around Spray in a decent breeze. The biggest difference is that Nomad would be heeled down, having an exciting sail, while Spray would be almost

	Spray	Legh II	Nomad
LOA	36' 9"	31' 5"	35' 7.5"
LWL	31' 3"	27' 6"	28' 4"
Beam	14' 2"	10' 10"	11' 5"
Draft	4' 3"	5' 7"	4' 9"
Displacement	37,000 lb.	19,040 lb.	17,000 lb.
Ballast	All inside, ? lb.	6,720 lb.	6,200 lb.
LOA/LWL ratio	1.18	1.14	1.26
Beam/LWL ratio	.453	.394	.403
Angle Entrance	53°	30°	26°
Prismatic Coeff.	.66	?	.55
Displ./LWL ratio	541	409	334
Bal/Displ. ratio	?	.353	.365
Sail Area	1,076 sq. ft.	452 sq. ft.	649 sq. ft.
SA/Displ. ratio	15.5	10.1	15.7
Capsize number	1.7	1.63	1.79
Comfort ratio	50.5	42.7	33.2

upright, with her crew relaxed in deck chairs, sipping rum and enjoying the scenery. Super-heavy displacement combined with great form stability does have its merits!

Slocum reported making some excellent day's runs while sailing off the wind in the Indian Ocean, covering 2,700 miles in just 23 days, an average of more than 117 miles per day. I believe that *Spray's* unusually high prismatic coefficient (Cp) largely contributed to this good passage (for more on yacht design formulas by Ted Brewer, see *Good Old Boat*, July 1999 and November 1999). The Cp is an indication of the fullness of the ends of a vessel.

In less technical terms, *Spray's* ends were very full for a sailing yacht. The average auxiliary cruiser has a Cp of from .53 to .56 or thereabouts whereas *Spray's* Cp of .66 is more akin to that of a displacement motor-

boat. This high Cp indicates that the maximum speed for her waterline length was about 8.5 knots, quite in line for a husky motor boat and a full knot faster than the usual sailing cruiser of her waterline length. However, it's unlikely that Spray ever achieved that 8.5 knots, except down the face of a wave perhaps, due to her bluff bows plus the

limiting factors of her sail area and stability. Still, the high Cp would help to reduce resistance when she was being pushed by a spanking breeze. So when the wind was free, the Slocum/ *Spray* team was able to make some passage times that would be the envy of many a modern sailor.

Hands-free steering

Spray had one feature that would endear her to any cruising sailor. That



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was her ability to sail herself for long periods with no attention to the helm. The reason for this lies partly in her long keel but primarily in her balanced ends. Her bluff bow is matched by an equally bluff stern so that her hull would not change shape greatly as she heeled and, with her high initial stability, Spray would not heel to any degree in average breezes, especially with the wind astern. Slocum stated that she sailed her truest with the wind two points on the quarter and that she had very little weather helm even when beating to weather, a sure sign of balanced ends. A Colin Archer,

such as *Legh II*, has balanced ends also and would be similarly steady on the helm, while a more contemporary yacht, with a much finer bow and full stern, such as *Nomad*, will not fare so well; thus, the need for autopilots and windvanes today.

So, is a replica of *Spray* the ultimate yacht for offshore voyaging or a circumnavigation? Not in my opinion. She has neither the ultimate stability nor the weatherliness that I would want to see in an oceangoing vessel. There are simply too many other yachts her size that can provide adequate comfort, better performance, and greater safety when you meet that ultimate storm.

Is *Spray* a fine coastal cruiser? Absolutely! She combines family accommodations with the stability of a city sidewalk and a very easy motion in rough weather. She also provides sedate but quite adequate performance, provided you have a husky diesel engine ready to haul you off a lee shore in a gale or push you along when the breeze fails. And when you drop the hook in a new harbor, what other vessel *Spray's* size could possibly attract as much interest?



For more on the subject

Late in 2005, when *Good Old Boat* began recording nautical audiobooks, we began with Joshua Slocum's classic, *Sailing Alone Around the World*. To give our listeners something more than just a retelling of Slocum's marvelous tale, we asked Ted Brewer to record his observations about the *Spray's* lines and her capabilities as a bluewater sailer. This he did.

This research kindled a little fire in Ted. He was intrigued and surprised by what he learned and chose to expand his observations made for the audiobook into a full-scale article. His selection of two other circumnavigators (Vito Dumas and Ed Arnold) was done for the purpose of comparing the *Spray* with boats that are more commonplace these days. He added them so we could relate to *Spray's* statistics.

Joshua Slocum wrote a number of books about his voyages, although none was ever as successful as *Sailing Alone Around the World*, the book that established Slocum as the first solo circumnavigator. Two of these books are still available in print and can be purchased through the Good Old Bookshelf. Joshua Slocum books still available in print include three versions of *Sailing Alone Around the World* and *Voyage of the Liberdade*. One publisher combines the *Liberdade* tale and *Sailing Alone* into one book.

by Karen Larson

Related books on the Good Old Bookshelf include *Capt. Joshua Slocum*, by his son Victor Slocum; *Alone at Sea: The Adventures of Joshua Slocum*, by Ann Spencer; *Voyages of Joshua Slocum*, by Walter Magnes Teller; and *Sailing Around the World*, by Guy Bernardin, who took his family on a world cruise on a *Spray* replica in an effort to retrace Slocum's journey.

And, of course, we offer the newest version, *Good Old Boat's* first recorded audiobook, *Sailing Alone Around the World*, which can be downloaded or purchased as an MP3 CD by going to <http://www. goodoldboat.com/audio.html>. Vito Dumas also was a well-



known sailor who wrote several articles for magazines and published several books about his adventures in the early part of the 20th century. One book continues to be available in an English-language translation. It is *Alone Through the Roaring Forties*. This book is available through the Good Old Bookshelf. Ed Arnold's adventures in the early part of the 21st century can be read on his website at <http://www.gonesailing.com>.

Good Old Boat Bookshelf: http://www.goodoldboat. com/bookshelf.html> or call 763-420-8923.



E KNOW THAT 90 PERCENT OF people who sail do their cooking with liquefied petroleum gas (LPG) because modern propane stoves are quick, clean, and convenient. As long as propane (or butane) is kept under control and handled properly, it's a miraculous fuel.

air. If it accidentally leaks inside a

boat from one of the small metal tanks where it's kept under pressure, or from any parts of the stove plumbing, the gas will silently settle into the lower

areas of the interior and bilges. Then if ignited, perhaps by a spark from a motor, it can blow a vessel apart with force comparable to exploding dynamite or TNT.

I've seen and heard this happen to two yachts that were near mine. Believe me, it's a horrifying experience that I'll never forget.

To utilize the advantages of gas, but to minimize the danger of accidental explosion, sailors and engineers have worked out a series of safe practices. You can be sure that each detail is important and has been added to the list only after tragic experiences. Some of these points may seem niggling, but each is significant.

The gas bottle or bottles should • be kept in a gas-tight deck locker or box with an over-the-side drain from the bottom of the container. Or the gas bottle can be simply mounted on deck or on the coachroof. Then if there are any leaks in the bottles, regulators, shut-off valves, or plumbing, the heavier-than-air gas will drain overboard and dissipate.

... if ignited, perhaps by a spark from

a motor, it can blow a vessel apart with force

comparable to exploding dynamite or TNT.

the waterline (see drawing on Page 25). If the drain line is too long, it may curve below the hull opening on the inside of the hull. The resulting halfloop or kink can form a water trap and stop any leaking gas from draining overboard. This may sound like an over-fussy detail, but it's not.

To test the drainage, pour a little water into the box and watch the

through-hull on the outside. You may be surprised.

In some yachts, particularly smaller boats under 35 feet, it's a prob-

In practice, the gas-bottle locker $4 \bullet$ is often a small fiberglass compartment with a tight-fitting lid. To prevent gas from leaking into the interior of the yacht, it's important to seal the small opening through which the gas pipe or tubing is led from the box. This can be done with a generous slug of bedding compound, inside and out, or preferably with a special threaded, vapor-tight, nylon-and-rubber seal made especially for this purpose.

The overboard drain for the locker should be half-inch inside-diameter heavy-walled rubber or reinforcedplastic tubing. The drain should be plumbed so that it gently curves to a small through-hull opening well above lem to find sufficient vertical room for a locker to take the bottles that is still high enough above the waterline for the locker to drain when the vessel is heeled. Let's not forget that people eat and use cooking stoves when yachts are heeled. If the gas-bottle lockerdrain exit is under water, the whole point of the locker is invalidated. Or said another way: in their quest for lines smooth to the eye and a wish to keep such mundane things as gas bottles out of the way, architects may locate the gas bottle locker too low for it to drain properly in all conditions of usage. I believe this is a reasonable argument for keeping gas bottles on the coachroof or in a deck locker.

Unfortunately, LPG is heavier than

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The copper (recently annealed) • or special rubber line (a better choice) that runs from the gas bottle locker to the stove should be of the highest quality. The usual LPG hose is designed for use at 350 pounds per square inch of pressure (psi), while the actual gas pressure (after going through the regulator) is only 0.5 psi. This means the hose is actually using only 1/700 of its normal pressure capability. This line should be one continuous piece, carefully sited, and fastened so it doesn't chafe on anything. When you measure the length, add a couple of feet to your figure; it's easier to cut off a little than to be short.

Some people go to the trouble of routing the propane hose inside lengths of PVC pipe, but that may be overkill and it makes it harder to inspect the hose. The flexible hose needs a little slack here and there and protection where it goes around corners. Small PVC pipe hangers or pieces of split garden hose glued to the inside of the top areas of lockers may help in running the hose. It's best if you can route it out of the way so you're not tempted to grab it accidentally when you open a locker or are working on the engine. When the line is connected to the stove (either with a special threaded fitting or two hose clamps), the joint should be tested under pressure with a soap solution. When you're fitting this line, allow enough slack so a gimbaled stove can swing easily between its extreme movement limits.

The electric wires for the on-off solenoid in the propane locker need to be properly bedded or run through a special seal where they go through the wall of the gas bottle locker.

All the pipe fittings inside the gas locker (regulator, pressure gauge, solenoid control valve, pigtails, adapter fittings) should be connected to one another with Teflon tape or special thread compound and carefully tested — under pressure — with soap solution. The sole function of the pressure gauge is to spot leaks in the system.

The pressure gauge has nothing to do with the amount of gas in a cylinder. This is determined by weighing the gas bottle. **5**. The electric solenoid inside the gas-tight locker is a small shutoff valve that turns the gas flow on or off. The switch for this valve should be located in the galley and usually includes a prominent red light placed at eye level. When you're ready to use the stove, you start the gas flow by flipping the switch to "on," which also turns on the red warning bulb. You light the stove and proceed with cooking.

When the 55-foot deluxe Nicholson yawl, Lord Trenchard, on facing page, blew up in Poole, England, in 1999, people 4 miles away heard the explosion. Not only did the mishap trash a handsome sailboat, but the captain, Colin Rouse, had his left leg torn off. The mate, Gavin McLaren, asleep in a quarter berth, was blown out of his berth. Gavin was cut, gashed, and covered with blood and wreckage from the interior. Minutes later, the vessel was half-full of water and diesel oil. The interior was unrecognizable. Joinery, bulkheads, portlights, and the cabin sole were blown out. The front hatch was torn off. The afterdeck and cockpit were gone. The entire deck had been lifted, and the steering wheel and binnacle had been blown high in the air.

The cause was threefold: (1) There were two 9-pound propane-gas bottles. The evening before the accident, bottle 1 ran out. Bottle 2 was turned on, but the connection was loose, which allowed gas to leak into the propane locker. (2) This should have drained overboard, but somehow the locker was not gas-tight. Instead of draining properly, the propane went into the bilge area below the cockpit. (3) A gas alarm should have detected the propane in the bilge, but the alarm failed to work. When the captain started the generator, a spark ignited the propane, which blew up the boat.



When finished with the stove, but while a burner is still alight,

When you change bottles is the moment to pay attention to the pressure gauge that's generally part of the regulator.

you turn off the switch, which closes the solenoid in the gas-tight locker or wherever the gas bottle is located. The flame in the burner continues until it uses all the gas in the line from the propane tank. When the flame goes out, you turn off the burner valve and you're done. The stove is out and the gas has been shut off. Everything is safe.

Note that the gas has been shut off at the bottle inside the gas-tight locker or wherever the gas bottle is located. Additionally, the solenoid is constructed so that, in case of a general electrical failure, the valve will close. Some people take the additional step of going to the propane tank and physically turning off the gas valve at the bottle.

6. If there are two gas bottles in the gas-tight locker and one becomes empty, the gas flow stops. You have to go to the locker and either turn a valve to connect the other bottle, presumably full, or physically disconnect the empty bottle and connect the other. Note that the tank and mating pigtail gas line have left-hand threads, which means that you turn the wrench in the opposite direction. (Leave a wrench for this job permanently in the locker so you don't have to fumble when you change bottles in the middle of cooking. Wrap

the wrench in a rag to stop mysterious noises.)

When you change bottles is the moment to pay attention to the pressure gauge that's generally part of the regulator. When you hook up a full cylinder, check that you have the solenoid closed (red light off). Then do the following:

- Open the main valve on the new gas cylinder to charge the lines, regulator, and pressure valve inside the gastight locker with gas under pressure.
- Close the main valve on the gas cylinder.
- Note the pressure gauge reading, which should not change during a three-minute period. If it changes, something is leaking.

To addition to the six considerations listed above, a propanegas detector can be installed in the bilge of the boat. In the unlikely event of gas leaking into the interior of the vessel, the detector will give a visual and audible alarm.

8. As I mentioned earlier, you can make a strong argument for mounting a gas bottle out in the open on the deck or on the coachroof, particularly on smaller yachts. Then



A real-world propane locker of a 46-foot yacht that has just returned from a round-the-world trip. One tank is pitted and needs wire-brushing and painting. There is no pressure gauge fitted. Both cylinders are 20-pound tanks.

if the LPG bottle or plumbing leaks, the explosive gas will flow harmlessly overboard.

You turn the gas on and off at the tank itself. Depending on where the tank is mounted, this means reaching out through an opening hatch or portlight or climbing on deck. This is a safer arrangement than using a locker whose drain line can be blocked, either by poor design, by improper fabrication, or by a quarter wave when the yacht is heeled and sailing fast.

Additionally, a manual shut-off valve is simpler and more positive than an electric solenoid. But you have to remember to go out and shut off the valve.

Of course, a gas bottle mounted above the galley on the coachroof next to the boom gallows or aft of the cockpit is much less attractive than if it's tucked away inside a hidden locker. The bottle — perhaps a tall, smalldiameter aluminum cylinder mounted on its side — can be disguised by covering it with a plastic storage box. A milk box or its equivalent with open mesh or slat construction held down with a couple of pieces of shock cord works well, is simple and quick, and looks surprisingly functional.

Often, exterior bottles are mounted on deck behind the cockpit, with the bottle in use on one side and the spare on the other. Such bottles need stout wooden or metal mounts and sometimes line guards to keep main and mizzen sheets away.

Added stink

In its natural state, propane is odorless. However, to help detect leaks and alert people to the danger of an explosive gas, a chemical (ethyl mercaptan) is usually added to give the gas a pungent and distinctive smell. This odor is often described as similar to overripe chopped cabbage, rotten eggs, or decayed food. If you detect anything like this, shut off the gas, stop all forms of spark or fire emission, and start testing the fittings with a soap solution.

About 25 years ago, compressed natural gas (CNG) was introduced to the boating market in the United States. CNG is lighter than air, which means that it dissipates upward and will not flow into the bilges of boats if there is a gas leak. Everyone thought that CNG (with a specific gravity of 0.67, a bit more than half the weight of air) had a great future because it was so much safer. Certainly, it would eclipse the bottled-gas market. Regret-tably, CNG, in spite of its inherent advantage, failed to catch on and, like the Edsel car and the smokeless cigarette, has faded from the scene.

How much propane should a person take along? A rule of thumb is that one person will use 1 pound of gas to cook meals for one week. According to this, a 10-pound gas cylinder will supply cooking for two people for five weeks, three people for 3.3 weeks, and so on. For additional people, however, the amount of gas needed grows proportionally less since one cooking of spaghetti (or whatever), even with more in the pot, will do for the whole crew. Many cruising yachts carry two 20-pound bottles.

Using more fuel

When a sailboat goes to the high latitudes, the people on board invariably use more cooking fuel because all hands want bigger and heartier meals. Everyone eats more in Alaska than in Guatemala. Friends who have sailed to the high latitudes have reported running out of cooking gas and having only one hot meal a day, a dreary prospect.

I have asked my sailing friends about propane consumption, but the answers have been so varied and vague that I hesitate to give any hard numbers. I suggest that you keep a written record in the log or the ship's book each time you change and fill the gas bottles. Or if this is too much trouble, take a red grease pencil and write on the gas bottle the date you begin drawing from it. Then when it's empty you will know how many days it lasted. This will help you evaluate your system and your cooking habits.

Try to use the best components and take care with the installation of your propane system. Once in place and working, it will function properly for years. Don't forget to check the connections occasionally with a soap solution. And watch out for chafe on the propane hose in the stove area. Sometimes a piece of weak shock cord or a short piece of small stuff dangling from a screw eye will keep the hose out of trouble as the stove swings back and forth.



I was standing about 100 feet away on a dark night in Sausalito, California, when the propane heating unit of this power yacht blew up with an explosion that was heard 2 miles away. A woman was aboard who was blown out of bed but not hurt. Note how the stem has been ripped apart.



This drawing shows the problems of a propane deck locker of a small yacht. Heeled, the drainage of the second locker is under water and useless. Locker #1 (the drain hose is not shown) is OK.



Finding the cause was the trickiest bit

by Bill Barth

The wheel steering of my 1973 Grampian 30 had not worked well with the autopilot for several years. Holding a course when steering manually was not easy either because the rudder couldn't handle fine corrections; it stuck a little when turned a small amount. So I overcorrected.

Finally, I removed the rudder and found that the rudder shaft fit well enough in the hull bearing, but it was very stiff in the cockpit floor bearing. This bearing is plastic. I decided to make a reamer that was long enough to pilot in the lower bearing. The reamer pilot was 0.010 inches smaller than the rudder-shaft size. The rudder had been out of the boat for about two weeks when I tried the reamer. The pilot shaft should have been a slip fit in the bearing since it was undersized. But instead of being a slip fit, the reamer pilot stuck so solidly in the bearing I could not move it at all. It was stuck, and I could not get it out!

Using a ¼-inch drill, I drilled holes in the cockpit floor and found that the plywood sandwiched between the two fiberglass layers was wet. I cut a 6by 8-inch hole around the bearing with a sabre saw through both fiberglass layers and the plywood in between. That released the top bearing with the reamer still solidly stuck in it. I sealed the hole in the





cockpit floor with an upside-down bucket, which I caulked in place, and gave up for the weekend.

When I got home I blocked up the 6- by 8-inch cutout on a concrete floor and used a 5-pound maul to remove the reamer from the bearing. That surely proves the old adage: "Don't use force. Get a bigger hammer!"

The bearing's inside diameter was, at this point, much smaller than the rudder shaft. So that was why the reamer pilot had stuck in the bearing! This was yet another clue, but the mystery remained. Assuming the rudder was properly fitted to the boat when it was built, it seemed as if the fit had tightened up as the years passed. It had gotten even tighter, in fact, since I removed the rudder. I still didn't get it.

Lathe too small

I decided to machine the bearing back out to a slip fit on the rudder shaft. My lathe was too small to swing the 6-by 8-inch cutout, so I clamped it in a three-jaw chuck that was clamped to the table of a vertical milling machine. Then I began boring out the plastic bearing. The 6- by 8-inch cutout had an aluminum sleeve into which the plastic bearing had been pressed. When the plastic bearing was almost bored through, it broke free with a puff of white dust. The mystery was solved. The aluminum ... it seemed as if the fit had tightened up as the years passed. It had gotten even tighter, in fact, since I removed the rudder. I still didn't get it.













Reamer stuck in old bearing (1). Boring out the old bearing (2). Making the new bearing (3). Fitting the new bearing (4). Gaining access to wet plywood (5). Making the bearing support (6). New core installation (7). Putting the old floor back (8).

had corroded and expanded so that the corroded sleeve had a smaller inside diameter. It was this corrosion that

The rudder turns freely and the autopilot works well. The original bearing assembly should have had more glass and no aluminum.

outside, I had to work quickly to fair the resin as it oozed out around the plywood. I set the top piece of fiberglass

had squeezed the bearing and made the steering tight in the first place. When I removed the rudder shaft, the aluminum oxide had crushed the plastic bearing even more, which was why the undersized pilot shaft of the reamer didn't even fit after the rudder had been out for two weeks.

Once I understood what had gone wrong, I felt I was on firm ground for finishing the repair.

I cleaned up the aluminum bearing carrier by removing the offending corrosion and fitted a new bearing made from an oil-impregnated bronze tube. I added a grease zirk that also locked the aluminum, fiberglass, and bronze together.

Back at the boat, using a $\frac{1}{4}$ -inch trim router, I cut through the top layer of fiberglass and the plywood in the cockpit floor to expose as much of the wet plywood as I could. The router was guided on three sides by the wall of the cockpit. To guide the router on the fourth side, I temporarily screwed a 1 x 2 on the cockpit floor on the side toward the wheel pedestal. The wet plywood separated from the fiberglass easily, and I cleaned up the fiberglass surfaces with a chisel. When the pieces had dried, I sealed the inside surfaces with vinylester resin.

Screwed on edge

I made the support for the cutout bearing from two $1 \ge 2 \ge 12$ -inch wooden strips that were screwed on edge to the underside of the lower fiberglass floor. I wedged two short $1 \ge 22$ between them. I used 1½-ounce mat and vinylester resin to glass this support box together with the lower fiberglass floor.

Then I set the bearing unit onto the support box with a thickened resin mix. I also set the rudder in place to locate the bearing until the resin had set up.

The next day I set a new plywood insert, which was sealed with resin, into the large cutout in the cockpit floor. This plywood piece had a clearance hole for the rudder bearing and had four holes drilled through it and the lower glass floor for hold-down bolts. I set the plywood insert in thickened resin and through-bolted it. This part of the job required almost a quart of resin mix. Because it was hot



— the actual cockpit floor — in place in thickened resin and faired it in. Each time I set a different piece, I used masking tape to make cleanup easier.

I made a cap, turned from plastic rod stock, to cover the rudder-shaft end so water and dirt could not get into the bearing. Then I painted the cockpit floor with non-skid paint. The wood grating shown in the picture was made a couple years ago to raise the floor so I can't hit the end of the rudder shaft with my heel when I'm steering.

The rudder turns freely and the autopilot works well. The original bearing assembly should have had more glass and no aluminum. My repair would have been better if the aluminum had been cut out. However, my boat was 25 years old before the aluminum corrosion caused this problem.

Finished repair (9). Rudder installation (10).





Another rudder

TED TOLLEFSON

ve been refurbishing and upgrading my 1973 Grampian 30. Upon removing the Edson wheel-steering unit that was installed by a prior owner and going back to the preferred tiller, I found the fit much too tight between the tiller shaft and its bearing. This required removing the rudder and honing the fit to make the tiller easy to move. I suspect this is why the previous owner had installed the wheel.

Due to the weight and lack of a place to grip the surface of the rudder, the task of removing and later re-installing it was daunting, especially since I had to re-install it several times to test the fit. To solve this problem, I devised a rig to make the whole process painless.

by James Donovan

The rig is composed of:

- Two 2 x 6 boards cut to 3½-foot lengths
- A couple of lengths of ½-inch threaded rod
- Four flat washers
- Four nuts
 - Shingles tacked to the interior surface to match the fore and aft taper of the rudder

The handholds are two homemade hose hangers that I had available. However, any kind of handle would be suitable.

I slid the rig up the rudder and then tightened the nuts on the rig. Once it was in place, the rudder was easy to grip and manipulate.



E LEFT IN THE PRE-DAWN MIST. As the bird song heralded the break of a new day, I looked back and saw the islands of western Lake Superior receding in the distance. My husband, Ron, and I had been planning this venture for more than 20 years, yet it was with mixed feelings that we now headed east and eventually south.

Would we be able to trade rocky shorelines and pristine forests of conifer green (see Pages 44 and 45) for white sand beaches and palm trees bending to the wind? Would we be able to meet the challenges of longterm cruising? What about rough weather? With an open-ended agenda, our destination was unknown. We knew only that we were headed south to places where water stays in its natural state all winter long. We didn't even know when we would return.

There were other uncertainties. As I looked over the boat, I couldn't help but wonder — had we made the right decisions and preparations? Would our boat hold up to the rigors of extended cruising? Would it withstand the harsh realities of salt water and the punishing ultraviolet light of the lower latitudes? Did we have enough spares and backup systems?

Initially we had planned to begin full-time cruising much sooner. But jobs and other commitments pushed our departure further into the future. Fortunately, we were able to use this time to enjoy local cruising and work toward our goal by better preparing our boat.

Now at last we were really leaving. Everywhere I looked I could see projects from years past, reminders of all our efforts to make our boat a long-term cruiser. There were also the memories — some of which went back almost a quarter century.

Sailing background

We began in the early 1970s; our first "big boat" was a Coronado 30 designed by Frank Butler, the founder and current president of Catalina Yachts. By the second season we were committed to a goal of longterm cruising. Although the Coronado sailed well, we knew we wanted a bigger boat, one that could take us to

by Bonnie Dahl

distant ports, so we began to search in earnest. As a part of our research we read a book by David Parker. As an alternative to building your own boat, he suggested that you buy the boat that comes closest to your needs and then modify it. This sounded utterly simplistic. Little did we know the implications of that innocuous statement. We have often thought back to those early years and our ignorance as we began to pursue our goal.

what is working for them

After a couple of years of searching the market, we settled on Alan Payne's Columbia 10.7, which we bought new in 1978. It was listed as a "wide-body cruiser" with an 11-foot 4-inch beam that was quite a lot in those days for a 35-foot boat. (Today it's common to see a 12-foot beam on a 35-foot boat.) We particularly liked the design and layout of the Columbia. The wide body provided interior space that, in those days, was only dreamed of in 40-foot boats. The wineglass transom was pleasing to the eye and provided the shape of a double-ender at the waterline while still retaining seakindly buoyancy in a following sea.

We hoped the partially shortened keel and extended skeg would lead to easy tracking, which was important with whatever self-steering system we chose. Yet the cutaway forefoot and lack of a long keel would still give us maneuverability in tight quarters. With the beam carried well aft, the roomy hull provided additional storage room that was lost in the pinched-in sterns of many contemporary designs. The stern even came with two molded-in 20-pound vented propane lockers ready to go. Finally, the boat was designed to carry weight



Dalfin II, Bonnie and Ron Dahl's Columbia 10.7 (a 35-footer), enjoys a saltwater romp off Bequia, south of St. Vincent in the Grenadine Islands, on facing page. The Dahls, Great Lakes sailors for many years, took *Dalfin* (another view, above) out to the great salt pond and back to the fresh water of Lake Superior not once but twice. The Columbia 10.7 shows her wineglass transom, below.



a characteristic that we appreciated over the years. The Columbia was everything we wanted. Yet right from the beginning — even in the first year
we began to make modifications.

We did our homework carefully, reading sailing books and periodicals. Early on we discovered that the reguirements for a coastal cruiser and a long-distance passagemaker are quite different. We came to realize that, although we all face the same problems in equipping our boats, the solutions are as varied as the different kinds of boats and sailors out there. Articles abounded with different ways to reef the mainsail, what type of anchor to choose, the pros and cons of electrical vs. mechanical refrigeration, whether to use autopilots or windvanes for self-steering, and so forth.

Then, when we finally made a decision, there were no perfect solutions. In boating it seems that each decision is a compromise, often with a domino effect.

We realized there was a limited amount we could learn from reading. There comes a point where you really have to get out there and do it yourself to find out what works and what doesn't. Living aboard every summer for three months gave us the opportunity to test our decisions and new systems. We soon found that things we would put up with for a weekend — or even a two-week vacation — weren't tolerable over longer periods.

Over the years we've learned that outfitting a boat is an ongoing evolution. The words "trial and error" took on a new meaning for us. Often we'd try a particular idea only to discard it in favor of another, especially when a new product came along or the technology improved. When you have owned a boat as long as we have, you end up going through second and third generations of some systems. And there really *is* something in the adage, "If you wait until the boat is perfectly ready, you'll never go." Even though we started off with a boat in sail-away condition, the evolution continued as we fine-tuned systems, replaced parts of others, and installed completely new ones years after we left. On the following pages, we share some of the things we learned.

Cockpit

One of our first additions was a dodger. While this is a pretty common addition, there are options, depending on boat configuration and how and where you are going to use the dodger.







Many use a dodger as the basis for a full enclosure or add on a Bimini. This results in a dodger of very large proportions. But because we were sensitive to the aesthetics of our boat, we opted for a low-profile dodger that we thought enhanced the lines of the yacht. Three dodgers later, we have a design that we've kept over the years. We particularly like being able to look over the dodger for clear visibility, as opposed to the distortions one gets when looking through plastic, especially in rain. Even though our dodger is low, when it is combined with weathercloths, we feel we get adequate protection from the wind.

Cushions

Since we spend a lot of time in the cockpit, we added cushions for comfort. However we didn't want to take them below each time it rained or whenever we sailed in rough weather, so we had them made of closed-cell foam. The covers were made of Sunbrella that dries quickly.

Through trial and error, we designed a system to hold the cushions in place. We attach large pieces of plastic to the underside of the cushions. The plastic pieces fit into channel grooves screwed into the seats. Even in the roughest weather, the



The cockpit cushions, at top, are fixed to the seats with a channel groove arrangement that allows the cushions to be installed in the spring and left for the entire season. The cockpit grate, above, disguises some of the sand and grit that are tracked aboard. The cockpit table enables cocktails for six or dinner for two; it is shown in use, lower left, and protected by a vinyl cover, lower right.

cushions are secure and don't slip and slide. In fact, once they are in place they usually stay put for the season. We remove them only for winter layup or for hurricane preparations. We've gone through four generations of cockpit cushions.

Cockpit table

To complete our comforts in the cockpit, we made a foldable table that is nice when we have guests for happy hour. Fully extended, it provides just enough space for dinner for two in a pleasant anchorage. We also made a three-part cockpit grate, which looks good and hides the dirt that comes aboard on our shoes.

Dinghy and davits

One of the problems we all have is what type of dinghy to choose and how to transport it. Over the years we went through a progression of dinghies from a small Avon Redcrest to a sportboat with an inflatable keel. We opted against the rigid inflatable boat (RIB) primarily because of weight.

In the end we opted for a dinghy/ motor combination that could be pulled up on a beach easily. We also wanted a dinghy that could be deflated for storage when we left the boat for long periods. After a progression of motors we ended up with an 8-hp motor that enables us to cover large distances quickly. It not only gets us out of inclement weather faster, it is also able to punch through rough seas more easily.

What to do with a dinghy?

To transport a dinghy with the mother ship there are three options:

• Store it on the deck (fore or aft of the mast).







- Tow the dinghy behind the yacht.
- · Hoist it on davits.

Even partially deflated, a dinghy stowed on deck is an obstacle to working the sails. So that was out for us. Towing a dinghy in rough weather was not an option. Thus, the addition of stern davits was another early modification on our traveling home.

Fortunately, the wide transom of the Columbia allows it to support a large dinghy. We designed davits that were beefed up with a lot of extra support, had them custom-made of aluminum, and tied them into the stern rail. The davits are mounted high enough so that even in large following seas we have never had problems with the dinghy filling with water. When we were in sustained 35-knot winds, it was nice not to have to worry about the dinghy, which was held firmly in place with additional underbody straps.

For coastal cruising and in the Caribbean, davits worked very well. We knew, however, that if our cruising turned to long-distance passagemaking, we would probably be looking for a new alternative ... yet another phase of the evolution of our cruising boat.

Safety and security

We purchased a four-person Avon life raft with a double floor. This was mounted on the foredeck forward and starboard of the mast. We also added an overboard bag — with extra water, rations, and a hand-operated watermaker — that was stowed in the cockpit locker. We carried a parachute anchor and a drogue but used the drogue only a couple of times.

With the dinghy stowed on davits, we could no longer stow the man-overboard pole on the backstay. We moved the pole (with a connected strobe light) to the cockpit lifelines where we mounted it in a long horizontal tube with a quick-release mechanism. We



Davits and solar panels and a whole lot more are shown in top photos of *Dalfin's* stern. The foredeck, above, showing stainless-steel safety rails around coachroof, non-skid, downwind poles, and plastic side curtains attached to the Bimini. The outboard motor and motor lock on the transom, below, along with a close-up view of the motor lock.





added a Lifesling, two horseshoe life preservers, and a heaving line to the stern pulpit. We put a radar reflector high on the mast. Within the companionway and throughout the boat, we added vertical handholds in strategic locations. We glued non-skid to the companionway steps.

To lift our 60-pound outboard motor to the stern pulpit, we designed a stainless-steel crane with a four-part tackle. Over the years the stern pulpit sprouted a few poles to support antennas and a stern light.

It's especially nice on a boat when you have a system that does double duty. In the interest of low maintenance, we removed the teak handrails on the coachroof and replaced them with stainless-steel tubing that goes around the entire roof. To this we added four stainless cars (two for each side) so we can attach our safety harness tethers for foredeck work. The cars are designed to slip easily over the supports of the tubing. We also added a number of stainless-steel pad-eyes in the cockpit as harness line attachment points.

In some areas, particularly in parts of the Caribbean, security is a problem. Dinghy theft in many areas is rampant, with the main prize being the outboard motor. For this reason, we raise the motor each night and secure it to the stern pulpit with a formidable stainless-steel motor lock. While no lock is completely theft-proof, this one is very difficult to remove even with large bolt cutters.

We also used the motor lock whenever the motor was mounted on the dinghy. To secure the dinghy when ashore, we had a couple of large plastic-covered cables with locks and even a ⁵/₁₆-inch chain for extreme conditions. If we were anchored in an area known to be relatively safe, we would leave the dinghy overnight in the water cabled to the boat but without the Safety seaboards (hatchboards on steroids!), on left, and the cockpit anchor light, on right, which probably did more to deter trespassing than any other piece of deck equipment.

motor. Otherwise we would raise it on the davits each night. Cruisers without davits often raised their dinghies "on the hip" with a halyard.

Another problem in some Caribbean areas is swim-aboards who may board your boat at night with the intention of robbing you. To keep these intruders out of the cabin, we made two substitute companionway hatchboards using a grill of 1/4-inch stainless-steel bars that could be locked from the inside. Although we used these only rarely in areas known for theft, the lockable grill structures gave us a feeling of security when we were asleep down below. Probably the best deterrent for swimaboards was a low-draw mega anchor light we hung in the cockpit each night that illuminated the whole aft end of the boat. We tried setting motion detectors in the cockpit, but they never worked that well for us.

Exterior modifications

To increase light and ventilation belowdecks, we added a number of exterior hatches and ports. We put one hatch in the head, another in the main cabin directly over a kerosene lamp we installed. We added two 3-x 10-inch opening ports in the aft part of the main cabin: one in the galley and one over the nav station. Not all of the original small ports opened; except for the four larger windows in the main cabin we changed all of them to opening ports with screens. After a few years, the larger ports began to leak. We removed them and designed new, more streamlined frames. We constructed them of aluminum angle stock, which, when installed on the coachroof sides. prevented further leaks.

We also added five deck prisms to bring more light into the cabin. We cannot say enough about these, as they bring in seven times the amount of light for the size of opening, while adding none of the heat you get in the south. Finally, we bug-proofed the en-



tire boat. All hatches and every orifice leading into the boat were covered with fine-mesh screen. The companionway has a day screen that is easily moved and a night screen that is held firmly in place with Velcro. We found these efforts to be particularly worthwhile in areas with no-see-ums.

We read that mast steps were an important asset on a cruising boat. Not caring for the choices that were on the market, we designed our own and had them custom-made of 1/2-inch round aluminum stock. We quickly learned that a downside of mast steps is their ability to snag halyards. We solved this problem by running a thin line along the outside edge of the steps almost the entire height of the mast. For years we held these lines in place with vinyl tape. However, since tape comes off over time, we recently attached to the outside edge of each step small aluminum tubes through which the lines are strung.

It took only a couple of scrapes before we realized we needed hull protection. Initially we put on rubstrakes made of wood with a fiberglass covering. Over time, water worked in between the wood and fiberglass and produced bubbles and cracks. We made a second set of strakes of solid fiberglass, using the first as patterns. We through-bolted the new strakes to the hull and used a ³/₄-inch stainlesssteel cap. These strakes have provided more strength for the hull and easy maintenance over the years.

Paint jobs

Eight years after we bought our boat, there was a lot of talk about blisters forming on boat bottoms under the waterline, particularly in salt water. Even though we had no blisters at the time, with our long-term goal in mind, we proceeded with an epoxy barrier job. We ground off all the old bottom paint down to the gelcoat and worked up to 4 inches above the waterline.



(Like all cruising yachts, we raised the waterline a number of times.) We laid on five coats of epoxy and added the first coat of bottom paint before the last coat of epoxy was fully dry.

Probably the biggest project we ever took on was repainting the hull and deck with Awlgrip. Our decision was not just cosmetic. We wanted to provide extra ultraviolet protection for our aging gelcoat. While it's one thing to paint the hull, it's guite another to paint the deck. We did all the prep work. We removed almost every piece of deck gear and bagged and categorized each. Anything that was not removed was masked off. Although we had contracted to have the boat professionally sprayed, we did all the sanding for initial prep as well as in between the two primer coats and two coats of Awlgrip.

At this juncture we were faced with the domino effect. As long as all the deck gear was off, it seemed a perfect time to change the non-skid. After some research we settled on TBS, a product made in France. This is a composite non-skid material made of polyurethane resin and granules. Because it is made of a polymer, it is resistant to ultraviolet light and does not crack. TBS comes in sheets that can be cut to size and glued to the deck with industrial-grade contact cement. The TBS has served us well over the years. It is non-abrasive yet provides a grip that improves when wet.

All in all, the deck and hull painting and adding the non-skid were stupendous efforts. But when we were finished it was like having a new boat. With the new port, rubstrake, altered bootstripe, and whale strip, our boat seemed quite streamlined. Yet this was just one part of our preparations for long-term cruising.

Part 2 of "The Evolution of a Cruising Boat" will appear in the September 2006 issue.
Profile

King of Pond





Will Lesh has made more than 55,000 model sailboats in the past 23 years. They've sold in 46 countries. The former commodore of Princeton University Yacht Club still has his very first model sailboat, shown above. Will was about 4 years old when he was given this 20-inch pond racer made by the Keystone Boat Company. It dates back to the 1920s.

Will Lesh builds wooden sailboats by the thousand

by John Vigor

O SAY WILL LESH IS MAD ABOUT sailboats would be a gross understatement. Since childhood, his life has revolved around sailboats. He was commodore of the Princeton University Yacht Club. He sailed his home-built 24-footer across the Atlantic. He teaches people to sail boats. He dreams about boats. He designs boats. He teaches celestial navigation. He skippers charter boats. And above all, he builds boats.

When you ask him exactly how many he has built, wrinkles break out around his blue-gray eyes as he squinches up his face to count. "Well, certainly more than 55,000," he hazards.

The vagueness of this tall, trim, bearded man with the ready smile is understandable. After 23 years of boatbuilding, it's difficult to give a precise number. With the first 50,000 behind you, you tend to lose count.

The great majority of these sailboats have been miniatures — model wooden sailboats, pond-sailers lovingly crafted in his home workshop in the rolling foothills of the Cascade Mountains in the Pacific Northwest.

But bigger boats of all kinds surround the house that he and his wife, Cynthia, have built on their 28 acres of wooded farmland in the northern part of the State of Washington. These boats lie around in cradles. They're propped up against walls. There are a canoe, a dinghy, a Laser. There's *Gimble*, a 24-foot Cutlass class Midget Ocean Racing Club sloop that Will built of cedar veneers and sailed from the Chesapeake Bay to the Mediterranean in 1981.

And lurking in the background is the bare hull and decks of a sleek fiberglass 50-footer. "For our retirement," he explains. "When we get around to it."

In the meantime, Will keeps his San Juan 34, *Fantasia*, in a marina in Bellingham, a half-hour's drive away. When he's not conducting skippered charters on her or up to his eyes in orders for more model sailboats, he cruises in *Fantasia* among the San Juan Islands of Washington and the Gulf Islands of Canada with his wellseasoned crew: Cynthia and their two daughters, Robyn, 11, and Lainey, 8.

But his bread and butter come from the carefully stacked piles of Western red cedar that he turns into solid-hulled model sailboats. They've sold like hotcakes in 46 countries of the world, including Iceland, Thailand, and, ironically, China, the very country you'd expect to be exporting toy sailboats to America.

Will never gets tired of boats — designing them, building them, and sailing them. His enthusiasm for his business, Tippecanoe Boats, is palpable as he shows visitors his home-built workshop. Decades of experience have enabled him to hone his modelbuilding skills into a production line

In photo to left above: 37-inch radiocontrolled (RC) racing sloop, T37; 43inch RC gaff-rigged schooner, Fairharbor 43; and 50-inch RC trimaran, T3-50.



with precise templates and improved machinery.

"I can now build a boat in about one-tenth of the time it took me when I started out in Seattle 23 years ago," he says.

It takes Will just minutes, for example, to produce a 12-inch model T12 hull. He runs his hands carefully over it at every stage, ostensibly feeling for imperfections, but actually loving the feel of the satin-smooth cedar and admiring the beautiful swirls and colors of the grain.

"It's the only wood to use for solid hulls," he insists. "Most woods are too heavy, so you can't ballast the hull properly."

The other thing that keeps him enthusiastic is the response of his customers. "They're all the nicest people. It's amazing. Model boats

just seem to attract good people. All the time they send us email messages, letters, and pictures of their boats in action. People feel the connection back to the old days of sail," he says. Many of those people are owners of regularsized cruising sailboats who enjoy sailing the models in quiet anchorages.

The cat-rigged T12 cruiser and its bigger sisters, the sloop-rigged T15 racer, which has a 15-inch-long hull, and the T-Class racing sloop, which is 18 inches long, all feature deep narrow fin keels with heavy zinc bulbs at the bottom. The T-Class sloop is Will's Will begins work on a model sailboat in his home workshop, at left, watched by daughters Lainey and Robyn. A display, below, features the range of model sailboats manufactured by Tippecanoe Boats. Will and Lainey, at right, at the bow of *Gimble*, the 24-foot ocean racer he built and sailed across the Atlantic.



most popular line. More than 13,000 are sailing now and are likely to be for decades to come.

"They're so simple," he says, "almost indestructible. And they're good to look at. People hang them on the walls of their homes when they're not sailing them."

Will makes the sails from brightly colored nylon spinnaker cloth, which does not stretch appreciably in small sizes. As for the standing rigging, he

He built *Gimble*, his house, his woodshed, and the machines that shape, drill, and sand his boats from wooden blocks.

finds nylon fishing line to be ideal.

"You can sail the T-Class sloop out for more than a quarter of a mile from shore with 8-pound fishing line attached to the bow," he says. "When you want her to come back you just give the line a tug. She comes about and sails back to you."

Besides the simple solid-hulled boats, Will produces more complex 37inch-long radio-controlled models that he builds of ¼-inch mahogany plywood. He describes the T37 as "lighter, faster, and prettier" than fiberglass hulls and believes he's the only manufacturer of



wooden radio-controlled sailboats.

Like his other products, the T37 is available in kit form or fully finished, and it features innovations such as a novel Mylar hatchcover with a special double-sided tape that seals with a touch of a finger.

At Princeton, Will majored in English, but he was also proficient at math, science, and physics. Besides all that, he discovered that he was good with his hands. He built *Gimble*, his house, his woodshed, and the machines that shape, drill, and sand his boats from wooden blocks. He designed his website and even makes his own promotional videos.

Will jealously guards Tippecanoe's

reputation for quality. So much so that the company was awarded the coveted gold seal of the Parents' Choice Foundation. Over the years, his

business has grown mostly by word of mouth, greatly aided by his popular website.

"I came out West because it was so fresh and the opportunities so great," he explains. And while he certainly put his arms around his star in the sky, he doesn't want his business to grow too big. He controls its growth carefully so he's able to enjoy a satisfying lifestyle with his family.

"If it were any bigger, we wouldn't be able to get away as we've just done," he says. "We're just back from 44 days aboard *Fantasia* exploring



the remote Broughton Islands in Canada. The wonderful thing is we can close down the business and take off with no problems. We just shut up and go."

But right now Will has sailboats to build. "Tve got orders for 30," he says. "The UPS van will be here." In his workshop he slips on earmuffs and safety glasses and starts right in. After all, what's another 30 after you've already built more than 55,000?



43-inch RC gaff-rigged schooner, Fairharbor 43, at top. The distaff side of the Lesh family, above, includes Will's wife, Cynthia (middle), and their daughters, Lainey and Robyn.

Resources

Tippecanoe Boats 4305 Nordum Road Everson, WA 98247 1-800-206-0006; 360-966-7245

For prices and descriptions of finished models and kits, plus pictures and stories of the Lesh family's adventures, visit the Tippecanoe website at http://www.modelsailboat.com>.



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In love with LOWISA Good Old Boat sponsors yet another good old regatta

M CONVINCED THAT ONE OF THE REAsons why those of us with good old boats undertake often-insurmountable tasks is in anticipation of the memories that will be created by our floating labors of love.

For me, this journey began as a kid in the mid-1960s, when my father was in the U.S. Navy in Yokosuka, Japan, and we had access to wooden Snipes with canvas sails and a 38foot wooden sloop named *Kazehiya*. From that point on, the memory of wood and varnish, brass and teak, and

the smell of the sea as a source of good memories were indelibly linked. At that same time, half a world away, a group of sailors with the love of sailing and the Canadian wilderness began a sailing regatta on one of the world's most unique island archipelagos, Lake of the Woods. The year was 1966.

Beautiful setting

Lake of the Woods is a 10,000-squaremile lake with more than 14,000 islands, nearly all of them uninhabited and embedded in the Precambrian rock of the North American wilderness. For a few months of the year, winter loses its hold, and the ice peels back and reveals an unequaled sailing environment with warm water and beautiful Canadian scenery for those who take the extra trouble to venture there.

Due to its remote location, little has changed over the many years that this regatta has been held. Connected to Lake Winnipeg and ultimately Hudson Bay, it is still virtually as untouched as it was when the first French explorers and missionaries arrived looking for a Northwest passage to the Pacific

LOWISA anchorages tend to be at well-protected and uninhabited islands. The stunning scenery comes free with the lake.

Ocean. Its remoteness contributes to its sailing qualities. Lake of the Woods does not have the inundation of the gas-powered noisemakers that flourish in more accessible locations.

Little did the first organizers of what later began to be known as LOWISA (Lake of the Woods International Sailing Association) know that this Canadian wilderness tradition would persist for 41 years. Over the years, LOWISA has attracted the core of good old boat enthusiasts with assemblages of Balboas, Santanas, Rangers, Cals, and other names familiar to those of us who love and restore old sailing boats. For this reason we have persuaded *Good Old Boat* magazine to join as a sponsor, beginning with the 2006 season, August 6 through 12.

Many people compare the environs of Lake of the Woods to the North

Channel of Lake Huron or upper Casco Bay in Maine. Except for the extreme southern portion, the lake is profusely dotted with islands and well-protected anchorages. However, warmer water temperatures than those found in the North Channel and Casco Bay

contribute to just as much fun *in* the water as *on top* of it.

The lake is located about 200 miles west of Lake Superior along the Minnesota and Canadian border. By road, there are two towns on the lake — Kenora, Ontario, at the north side, and Warroad, Minnesota, on the south. Other locations are primarily resort camps accessible only by seaplane or boat. LOWISA anchorages tend to be well-protected and uninhabited islands. The stunning scenery comes free with the lake.

Fun for families and friends

Good old boaters, with their onboard living accommodations, do well for the week. Sailors who come to race with daysailers often charter a large houseboat with a group of friends or family members to share cooking and sleeping facilities. LOWISA is a point-to-point daily sailing competition. Most fleets are based on the PHRF handicap rating system.

As a point-to-point journey, there is a dif-

ferent wilderness island anchorage every night. During one day of the week, there is a layover day with buoy races and a fish fry of the local catch. This year, on the registration day, Saturday, August 5, is the first LOWISA Annual Youth Dinghy Open Day Regatta with an involvement of the Royal Lake of the Woods Yacht Club. RLWYC has a history of U.S. and Canadian joint sailing competition going back nearly 100 years.

The keys to LOWISA's success have been the friendly competition during the day and the friendships that are formed among boat crews and families at night. Repeated attendance has resulted in many third- and fourth-generation LOWISA participants. My first LOWISA was #6 in 1972 when my family returned from Japan. Now I am U.S. Commodore for LOWISA #41. My Canadian counterpart, Robert Nuttall, has been a long-time participant also.

While over the years I've sailed on many of the world's oceans and participated in many high-powered racing events, it is difficult to compare them with the unique memories created from LOWISA's family and social-centered spirited sailing competition and incredible wilderness venue. This year, LOWISA #41 will originate and end at Kenora, Ontario. We expect about 70 boats. For more information, visit our website at <http://www.lowisa.org> or call 612-804-6956. Sailboat charters may be available through a nearby marina; email nharbour@voyageur.ca.

LOWISA is a perfect venue for good old boats. Come join us for a unique sailing experience. $\underline{\mathbb{N}}$



Cruising memories



with eight kids

The kindest thing people called him was "totally bonkers"

N THE SPRING OF 1960 1 RECEIVED a call from Jack McKenzie, with whom I then crewed on Bill Gillerlain's Intrepid. He was crewing on the transatlantic race to Sweden and had arranged a berth for me. Five minutes later, I received another call offering me a job, one I had been looking forward to. The job required starting immediately. My wife and I had a short discussion about which offer to accept — including such topics as growing up, the relative importance of fun vs. responsibility, and the high cost of divorce. I chose the job, but the certainty of some day making a transatlantic trip existed from that day. The only question was when and how.

The "how" was established from 1972 on. In that year we bought our Yankee Clipper 41, a Garden-designed ketch. *Slainte* was the vessel and, having added five more children to the three we already possessed in 1960, we did not lack for crew.

by Jim Martin

We sold our home and moved into an apartment. With eight children, this was no minor commitment. One of the conditions of buying the boat was that my wife would *not* make the transatlantic. She would meet us in Spain and continue through the Mediterranean part of the trip. There remained the question of the date. Several years before we bought *Slainte*, we had selected 1977 as the year to go. Inasmuch as we owned a Sunfish at the time we selected the date, you may feel perfectly justified in considering us presumptuous. We did, nevertheless, leave in 1977.

Made preparations

For five years, we worked at preparing the boat and ourselves to make the crossing. I will not relate all of the additions, changes, and improvements we made to *Slainte* nor what they cost; the memory of this frequently makes me nauseous. As anyone who has made extended passages knows, planning consists principally in making lists, striking off items from them, and making more lists. We filled notebooks with lists. We eventually struck off enough items to feel justified in departing.

We prepared the crew by spending five weeks a year cruising Lake Huron's North Channel. We routinely went directly from Chicago to Mackinac non-stop, in order to season the crew to overnight and distance sailing. We had cruised extensively in borrowed boats, but these were longer passages.

I was not too concerned about my own qualifications, since I had competed in 25 Mackinac races and three Southern Circuits and had been, for a number of years, a destroyer deck officer in the Hunter-Killer Force, North Atlantic. I had also chartered in Maine and done substantial sailing in the Caribbean.

As anyone who has made extended passages knows, planning consists principally in making lists, striking off items from them, and making more lists.

Of my crew, Sean, at 22 had five Mackinac races under his belt and three years in the Navy. The rest of the crew had only Lake Michigan sailing experience: Gavin Globensky, 19, a replacement for my 19-year-old son who did not make the trip with us; Kieran (Kerry), 17; Siobhan, 15; Kael, 13; Deirdre, 11; Tadhg, 9; and Moira, 6.

With the boat and crew ready, except for 10,000 items yet to be done, we shipped *Slainte* by truck to Bert Jabin's yard in Annapolis, Maryland, the first of May 1977. Sean and I spent the month of May working on final items, culminating in what I take as a compliment.

Good survey

A surveyor for a marine insurance company spent an afternoon aboard the boat and said when he left, "I have been surveying yachts for many years, and I have never been aboard one before when I did not have any recom-

mendations for changes or additions." This engendered a warm feeling, although subsequent events proved that both of us were over-optimistic.

Incidentally, it gave the children a great deal of glee, when people in Annapolis who saw the name *Slainte* and Chicago on the transom asked what route we took to get there, to tell them, "I-80!"

We left Annapolis on June 2 by way of the Chesapeake and Delaware Canal, thence to Cape May and straight east to our first stop: Horta, 2,500 miles away. The second night out the weather began to deteriorate. For the next four days, we were in a gale of wind, to say the least. For 48 hours, we averaged a little over 4 knots under bare poles. For the next 48 hours, we averaged over 4 knots with a small 100-squarefoot storm staysail up. Thereafter, we enjoyed

relatively good sailing, with a total of only three other days of strong winds until June 25, when we were powering the last 80 miles to Horta. We had anticipated, and gotten, an immense calm as we approached the Azores. We had saved our fuel for this reason and were now grateful that we had.

At that point, a number of things happened in fairly rapid sequence: our engine broke, we discovered that the water in our last 50-gallon tank was contaminated, and we met a Taiwan 50 in mid-ocean that was out of fuel. We gave him 30 gallons of diesel fuel and the end of a tow line, and we arrived together in Horta on June 27. We had averaged 100 miles a day for the entire trip.

Another 1,200 miles

After four days we sailed another 1,200 miles to Cadiz, Spain; lost Sean, who returned for the Mackinac race; and gained my wife and a neighbor's daugh-



ter for the next two months in the Mediterranean. We cruised through Spain as far as Cartagena; crossed to Italy by way of the Balearics, Corsica, and Sardinia; and left the boat at the Port of Rome to be shipped home.

One of the major reasons for making the trip was to "salt down the children" a bit. Two examples will allow you to draw conclusions as to whether the goal was accomplished.

Moira had left her rag doll at home. My wife brought it over to her and delivered it in Cadiz. When it was suggested that it was a lucky break that she had not brought the rag doll with her, considering the gales, leaking deck, and the general hubbub of the crossing, Moira casually replied, "That wouldn't have been any trouble. In the gales, I'd just put her in a drawer." Remember: Moira was 6.

On our last night in Horta I told the children that we were leaving in the morning. Somewhat apprehen-

sively, they asked, "How far is it to Cadiz?" When I told them it was 900 miles of North Atlantic, they replied in surprise, "Is that all?!" Then they resumed their card game. Their longest trip under sail before this journey had been 285 sea miles to Mackinac!

The kindest thing that has been said about the state of my mental health for taking a three-anda-half month 5,000-mile cruise with eight children in a small boat was: "Totally bonkers." Perhaps they'd be right if I went with children other than the ones who made up my crew. As for me, the only thing that would stop me from leaving again tomorrow would be the possibility of leaving yet today.

Rainbow sailing off Chicago, shortly before turning east onto Interstate 80 toward Annapolis.

Check out the various ways to reduce sail area

by Don Launer

HEN THE WIND SUDDENLY PICKS UP OR A SQUALL LINE is approaching, the ability to douse the sails or reduce sail area quickly, efficiently, and safely is vital. If you're sailing solo, shorthanded, or with infirmities, this important job can be particularly difficult and dangerous. There are high-tech hydraulic and electrical systems that can accomplish this, but for the average sailor, it has to be done manually by either furling or reefing the sails.

Furling means to roll up, or gather, a lowered sail and tie it to prevent it from blowing in the wind.

Reefing means reducing the area of a sail, allowing the boat to continue sailing under heavier wind conditions.

Reefing can be accomplished by many of the same methods used for furling, as long as the reefing gear has been designed to take the loads of a partially furled (reefed) sail.

There are several ways of reefing a mainsail:

• **Jiffy, or slab, reefing** – This is the most traditional type of mainsail reefing system. In this system the sail has one or more horizontal lines of *reefing points*. To

unused portion of the sail (*the bunt*) is tied along the boom using reefing lines on the sail (*nettles*). These lines pass through the horizontal line of reinforced grommets (reefing points) and hang down on each side of the sail.

The earings, or reefing pendants, that pull the luff and leech of the sail down to the boom take most of the load on the sail, with the nettles merely confining the reefed portion of the sail.

Generally, the sail sets better if you use jiffy, or slab, reefing than with other types of reefing systems.

• Vertical in-mast mainsail reefing – Rolling the mainsail up inside the mast requires a specially designed mast and roller system, which means a substantial investment if this system is retrofitted on a boat that did not have it. Vertical or horizontal roller reefing for mainsails makes reducing sail much faster and easier for the shorthanded or solo sailor. The trade-offs for vertical reefing are more weight aloft (higher center of gravity), even when the sail is furled, and increased windage, due to the larger mast extrusion. This system also requires a flatter-cut mainsail without a normal roach and battens (although vertical



Layout and illustrations by Ted Tollefson

battens are sometimes used), reducing the mainsail area and efficiency. As with all "in the spar" rollerreefing systems, there is the possibility of a jam, which is usually due to operator error.

- Vertical aft-mast mainsail reefing This system rolls the mainsail up on a wire just aft of the mast and thus can often be adapted to an existing mast; however, a new mainsail will be required. As with in-mast reefing, a sail with a roach and battens cannot be used, and the furled sail creates more weight aloft and increased windage.
- Vertical retrofitted in-mast mainsail reefing This system uses an additional aluminum extrusion in which the mainsail is roller-reefed. The extrusion is riveted to the aft side of the existing mast. This usually requires a new boom or one that is modified. The problems of added weight aloft and windage, as well as a special flatter-cut mainsail with no roach or battens, still exist.
- Horizontal rotating-boom mainsail reefing In this system, the sail is rolled up on a rotating boom. This requires a specially designed boom and gooseneck. On smaller sailboats, the boom is manually pulled out of a spring-loaded gooseneck and rotated as necessary. On larger boats heavier, geared, equipment is necessary to rotate the boom. If the mainsheet block is not located at the extreme end of the boom, then a fitting called a *boom claw*, *reefing claw*, or *claw ring* must be used. This fitting encircles the boom and rolled-up sail like a claw. It is open at the top to allow

boom claw, claw ring,

or reefing claw

room for the hoisted part of the sail, with rollers around this top opening and an eye at the bottom to which the mainsheet block is attached.

One of the disadvantages of rotating-boom reefing is that the sail's luff rope builds up around the forward end of the boom if more than a couple of rotations are made. In addition, there is no clew outhaul, which allows the clew to creep forward. Also, as more turns are taken, the more the end of the boom droops. However, the weight and windage aloft are as low as with a conventional rig, and the sail can have a roach and battens (if the battens are horizontal).

• Horizontal in-boom mainsail reefing – In this system, the mainsail is rolled up on a roller inside the boom's special extrusion. The added weight and windage aloft are much less than with a vertical roller-reefing system, and the sail can have a roach and horizontal battens, as with rotating-boom reefing. With this type of reefing system the mainsheet block location is not the problem that it is with a rotating-boom system, but there is still the lack of a clew outhaul. An advantage of this system is that, should there be a jam, the mainsail can still be lowered, an option that is sometimes impossible with an in-mast jam.

Inff

The parts of a rotating-boom reefing system

Whichever system is selected, it's important that you and your crew practice reefing or furling under ideal conditions. A white-knuckles blow is not the best time to learn.



by Bonnie Dahl

Superior cruising:









Images of the greatest of the Great Lakes











Boat review





ATBOATS AREN'T PARTICULARLY known for speed, rather for simplicity and stability. There are no headsails to tack and trim, and the relatively wide beam of the catboat gives it great initial stability. All this is true of the Nonsuch 30. Its traditional appearance and 11,500pound displacement certainly do not suggest speed. Thanks, however, to a long waterline and generous sail plan, on a reach this boat can boogie.

The Nonsuch 30 is an innovative design resulting from the inspiration of Canadian yachtsman Gordon Fisher and the talent of Canadian designer Mark Ellis (see *Good Old Boat*, May 2003). Gordon was a prominent sailor (past winner of the Southern Ocean Racing Conference) and business leader, who at one time was commodore of the Royal Canadian Yacht Club. When he decided to build a cruising sailboat, he envisioned a catboat with a freestanding rig, at which point he sought out Mark Ellis, who put ink to paper.

In Mark's words, "Gordon admired the Ljüngstrom-rig from the early 1930s. With a freestanding mast and no boom, this rig was perfect for singlehanding. We eventually decided on a Ljüngstrom-type rig that was modified by a windsurfer-style wishbone boom for better sail control."

Gordon then presented his vision to George Hinterhoeller in St. Catharines, Ontario, who in 1977 had formed, for the second time, Hinterhoeller Yachts, two years after selling his shares in C&C Yachts. Reportedly, George was less than enthusiastic about the design, but when six members of the local yacht club placed orders for the boat, he readily agreed to undertake the project.

In the years that followed, Mark designed four additional Nonsuch models — the 22, 26, 33, and 36. An upgraded version of the 30, dubbed the Nova, boasted a different interior and carbon fiber mast and wishbone boom. Unfortunately, production of these popular boats ceased in November 1995, when Hinterhoeller Yachts closed its doors for the last time.

History records that the Nonsuch was named after a boat owned by the Hudson's Bay Company. That vessel was named after the Baroness Nonsuch of Surrey, England, the mother of King Charles II's two natural sons. A busy lass, the Baroness also bore the illegitimate daughter of John Churchill, the man who later became governor of the Hudson's Bay Company in 1685.

Nonsuch owners are an active bunch, who boast that their association is one of the largest class associations in North America. The majority of the boats are east of the Mississippi, but owner groups also are found on the West Coast and, in particular, the Pacific Northwest.

Design

In profile, the Nonsuch 30 is characterized by a plumb bow and traditional cabin. Features of the latter include the rounded forward end of the cabin and the teak eyebrow running above the portlights. An examination of the arrangement plan shows a wide beam carried well aft to produce a spacious interior and cockpit. The plumb bow and stern tend to duplicate today's modern designs in racing sloops, which extend waterline length to the max. The reason: boat speed increases with waterline length. The formula is 1.34 x the square root of LWL.

The dominant feature of the Nonsuch, however, is an unstayed mast located within inches of the bow. At first blush, the large-diameter spar has

Nonsuch owners are an active bunch, who boast that their association is one of the largest class associations in North America.

about as much visual appeal as a telephone pole. An aluminum wishbone boom, about the same length as the boat, is positioned high off the deck with sheeting at the end. With a 44-inch freeboard, the Nonsuch might seem incapable of getting out of its own way. Not true. The hull form, which has been favorably compared to that of a Finn and International 14, produces a balanced helm through most wind speeds and sea states.

A relatively flat underbody yields a displacement/length ratio of just 216, which is considered moderately light. Moderate draft of 5 feet is sufficient for creating decent lift, and the semi-balanced spade rudder assures positive control. In these respects, the Nonsuch 30 has none of the bad habits of traditional catboats, such as extreme weather helm in high winds.

The sail area/displacement ratio is 17, which is generous even for a coastal cruiser, but that's because all of the sail area is in one sail. When winds go light, there's no option of hoisting a genoa, gennaker, or spinnaker.

Deck layout

The deck layout and cockpit are models of simplicity. Since the mainsail lives in a cradle of lines attached to the underside of the wishbone, it's easily hoisted and doused and rarely touches the deck. Without shrouds, sailtrack and genoa cars, jib and spinnaker sheets, turning blocks, and the other hardware that usually clutters a deck, the decks of the Nonsuch are essentially barren.

The cockpit measures 6 feet on the centerline, and the footwell is 30 inches wide, so crewmembers can stretch their legs without intruding into the space of those sharing the cockpit with them. The wheel is situated well aft and, with a 28-inch diameter, it's large enough to steer the boat but small enough to allow crew to move fore and aft past it with only minor contortions. The halyard and control lines (reef, boom vang, mainsheet, and "choker") are led aft to sheet-stoppers on the cabintop adjacent to the companionway, so there's little need to leave the cockpit. In fact, once the mainsail is dialed in, there's little for a crew to do except watch for wind shifts.

On the rare occasion when someone must move forward — perhaps to set an anchor — she or he will walk on a 24-inch-wide sidedeck without fear of tripping over a block, car, or

Father and son team, Jay and Tony Abbott, own and sail *Angora*, the Non-

such 30 on facing page. The bow, top right, is uncluttered, and the sidedecks are surprisingly clear since the unstayed mast lacks shrouds. You soon grow used to the massive mast on the foredeck, below left, and the cockpit is spacious, at right and below right. shroud. What takes some getting used to is the lack of shrouds to hang onto. There are, of course, stanchions and lifelines, but you have to crouch to reach them.

A popular and desirable option is a short bowsprit that extends the









Boat review



anchor and its rode sufficiently forward of the bow to avoid dings in the gelcoat.

Accommodations

Venture three steps down to the main cabin. You'll find it to be brighter than those in most boats. Three opening hatches in the coachroof and nine opening ports invite light and fresh air aboard.

Hinterhoeller Yachts initially offered what it called the Classic layout, the forerunner of the Ultra layout, which became the more popular. The Classic is, to say the least, unusual. In the forward 6 feet of the boat are two hanging lockers and a great deal of storage space created by three transverse and two fore-and-aft bulkheads. The rest of the boat is one large cabin, though there is a moveable partition and a door to divide it.

Forward in this large cabin are two settees with shelves and cubbies outboard and a drop-leaf table on centerline, so if you're sleeping on the settees, it's a simple matter to fall into bed after dinner. The drawback is that when dining underway, you'll be seated in the bounciest part of the boat. For privacy in this part of the cabin you have to raise a slide-up partition between the galley and port settee. A teak door folds against the head's bulkhead.

The galley is to port amidships, opposite the head. If you want to talk to the cook, you'll have to sit on the forward section of the port or starboard quarter berths.







The Ultra layout in *Angora* is the more traditional of two accommodation plans. Jay shows off the C-shaped galley, center top. The navigation station is tucked in near the companionway ladder, center middle, and the dining table is to starboard, center bottom. The head, above at left, offers snug room for someone to brush teeth while another is in the shower. The hanging locker, above at right, provides a great deal of space for a 30-footer.

In comparison, *Angora*, our test vessel, sported the Ultra layout. She is owned by Jay Abbott and his father, Tony, Nonsuch aficionados who sail on Puget Sound. Until recently, Jay owned a Nonsuch 26, his father a Nonsuch 36. Deciding to pool their resources, they sold both so Jay ended



up with a bigger boat and Tony one that is more user-friendly for, well, let's just say one who is old enough to be Jay's father.

The Ultra model has an 8-footlong, 10-foot-wide main cabin amidships, with dining table to starboard, full-length settees port and starboard, C-shaped galley to port opposite the head, and a proper nav station aft under the companionway. The starboard settee and table convert to a double berth large enough for a couple or a pair of Labrador retrievers if, like some people I know, you take your dogs sailing. The port settee is 6 feet 6 inches long. The interior is finished with teak-faced plywood

and nicely varnished solid teak trim. The forward stateroom has a

hinged teak door and a double Pullman-style berth offset to port. This configuration frees up space compared to a conventional V-berth that at the head is much wider than two people need; the flip side is that the person sleeping outboard has to climb over his or her mate to get out. To starboard is a larger-than-normal hanging locker into which a businessman's wardrobe would fit nicely. To starboard is a 16-inch x 30-inch vanity coupled with a large mirror.

The galley is a small but functional space into which a Force 10 two-burner stove/oven combination, refrigerator, and sink have been shoehorned. An icebox is located under a 33-inch x 23-inch counter that provides just enough room to slice a prime rib. The sink, though, is smallish. Outboard are cupboards enclosed by sliding Plexiglas doors that provide a clear view of the Waterford crystal. An additional cabinet is perched over the sink just high enough that dishes can be rinsed without fear of banging your noggin.

The shower/head compartment is partitioned so that Mom can shower while Dad brushes his teeth, though the arrangement involves a bit of a compromise in that neither space is an ideal size. No matter. The loo is accessible from the main cabin and the forward stateroom.

Aside from having a more sensible layout, my impression is that the Ultra model has more nooks and crannies into which gear can be stowed, so it also seems more utilitarian than the Classic.

Construction

One of the three founding companies that merged to form C&C Yachts in 1969 (see *Good Old Boat*, September 2002), Hinterhoeller Yachts pioneered work in balsa-cored construction methods. At C&C, the design emphasis was on racing and high-performance cruisers, so lightweight, stiff hulls were critical. After leaving C&C and again starting his own company, George Hinterhoeller continued to earn a reputation for building highquality yachts with attractive interiors and good sailing characteristics.

The hull and deck of the Nonsuch 30 are balsa-cored sandwiches with skins of unidirectional fiberglass and woven rovings. Bulkheads are marinegrade plywood tabbed to the hull. The hull and deck are joined by a throughbolted, butyl-bedded joint capped with an aluminum toerail.

Appendages are a moderate-aspectratio fin keel and freestanding, semibalanced rudder. The external lead keel is bolted to the hull with stainless-steel bolts passing through floor timbers glassed over with unidirectional rovings, a method that transfers loads throughout the hull.

The heavy, unstayed mast requires the installation of substantial bulkheads in the bow to absorb and transfer the loads. A female mast step is attached to the hull, into which the butt of the mast is fitted, after which a



Classic layout



Ultra layout (review boat)



Nonsuch 30

Designer: Mark Ellis LOA: 30 feet 4 inches LWL: 28 feet 9 inches Bean: 11 feet 10 inches Draft: 5 feet 0 inches Displacement: 11,500 pounds Ballast: 4,500 pounds Sail area: 540 square feet hexagonal male counterpart is added. Then the whole unit is strengthened by stainless-steel screws. The mast is further connected to the hull by a pin at deck level that passes through both mast and collar. Because unique forces are at work on a freestanding spar, it requires regular inspection and maintenance — see the owners' association website listed on Page 50 for help. Also, it is strongly recommended that the mast be removed when the boat is hauled. Deck hardware has proper

backing plates but, oddly, on at least some boats, the through-hulls have gate valves rather than the much preferred positive-action seacocks.

Performance

We tested *Angora* despite the fact the Westerbeke diesel engine would not turn over, even though we had freshly charged batteries. (Some early models had Volvo 11C diesels with saildrives, others had Universal 30-hp diesels.) The wind was dead calm.

No sweat. Jay hoisted the mainsail, pointed the bow close to a spot where we hoped some wind might appear, and sailed off the dock at a snail's pace. The cups on the wind-speed indicator were not moving. But minutes later, a blustery 2-knot northwesterly appeared and the boat began to make way, silently tacking through more than 80 degrees apparent wind and energizing the dockside photographer. In the process, Angora proved the adage that there's no substitute for sail area - the Nonsuch 30 carries 540 square feet of canvas. Even in light breeze it handles nimbly, turning in its own length.

There are significant differences between sailing a sloop and a catboat. For openers, the only running rigging is the main halyard, the mainsheet, and a choker line dead-ended on the front of the mast that controls the fore-and-aft position of the wishbone. It is led to the forward end of the wishbone, then aft to the cockpit.

The mainsail tack is attached low on the mast, the clew on the aft end of the wishbone. Flattening the mainsail is achieved by tensioning the choker, which moves the wishbone aft and tensions the sail. Reefing is a matter of pulling a line on the underside of the wishbone to shorten the leech while easing the main halyard. The reefed sail then is contained in a cradle in the wishbone. For offshore sailing, a storm trysail is possible and recommended. Check the owners' association website.

However, Jay says, "We don't think about tucking in a reef until the wind is blowing 30 knots, because the top of the mast is so bendy that it spills lots of air. I only tucked a second reef in my Nonsuch 26 when the wind was blowing 40 knots." Combined with a wide beam and a 40-percent ballastdisplacement ratio, the bendy mast also makes for a stiff boat.

While traditional catboats are notoriously difficult to handle in high winds owing to weather helm, the

PHRF: What the numbers mean

by Dan Spurr

The Performance Handicap Racing Fleet (PHRF) is a method of handicapping yachts that does *not* employ an equation into which one inserts numbers such as displacement and waterline length, with the resulting number being a given boat's rating.

Rather, a PHRF number is determined by actual performance on the racecourse, periodically adjusted as necessary by a local PHRF committee based on changes to the boat or changes in the boat's performance relative to others participating in the same local fleet races. As one description reads, it is based on the "perceived speed potential of a yacht," and no credit is given for the skipper's "lack of sailing skill or boat preparation." In fact, ratings assume the boat is in "racing condition."

The rating numbers translate to "seconds per mile." Let's say the rating for your boat is 150, which means 150 seconds per mile above a reference point (between 450 and 650 seconds are used for time-ontime scoring) or reference boat. In overly simple terms, if you're competing against another boat with a rating of 145 seconds per mile while your boat has a rating of 150 seconds per mile, and the race is, say, 5 miles long, then to win, the other boat would have to beat yours by more than 25 seconds (150-145 = 5; 5 seconds per mile x 5 miles = 25).

Ratings are based on certain assumptions about each boat. For example, the length of a spinnaker pole must be the same as the J dimension; the genoa LP between 150 percent and 155 percent of J; the propeller either folding, feathering, two-bladed in an aperture or on a retractable outboard motor; and the hull and appendages must not have been modified. If, say, you have a three-bladed prop on your boat, the local PHRF committee might add a few seconds to your rating to compensate for the increased drag of this prop.

While one-design fleets, such as the J/30 class, might settle on the same fixed number for all boats around the country (they have, and it's 144), for most boats you'll find that the PHRF ratings vary by a few seconds per mile from area to area. That's because of variations in how they compete in their local fleets, and that could be due in part to local weather conditions (San Francisco Bay generally has higher wind speeds than Chesapeake Bay).

PHRF ratings are most accurate when there are several of the same boats competing in the same fleet. Wide variations in ratings between fleets sometimes occur when there are only one or two boats in a fleet.

The beauty of PHRF, for our purposes at *Good Old Boat*, is that it gives an objective means of comparing performance between two different models of boats. Beginning with this issue, boat reviews will include PHRF numbers whenever available. We'll also give the numbers of several similar-length boats, so you can get an idea of how fast or slow a given boat is relative to others you might know.

More information on PHRF and how the numbers are actually used by race committees (time-on-time, time-on-distance, and so-called golf handicaps) is available at the U.S. Sailing website, <http://www.us sailing.org/phrf/>. Nonsuch 30 is well balanced. Designers have, after all, learned a few things over the years.

The average PHRF rating for the Nonsuch 30 is 186. Compare this number to the one-design racer J/30 at 144, and the 1970s-era Newport 30, reviewed in the last issue, at 174. The Pearson 30 also rates 174. (See sidebar on this page for an explanation of how these ratings are determined.)

The bottom line

There's no arguing the fact that a catboat is simply one of the easiest boats to sail. Tom Wylie, who designed the Wyliecat 30, once said, "My 70-year-old mother drives a catboat to weather on San Francisco Bay in 25 knots of wind."

Since the same holds true for the Nonsuch and it also has a turn of speed, any sailor who disdains this boat on the basis of its appearance will be missing an opportunity to sail a fun, well-built boat. On the other hand, if you like tweaking lines and playing with main and headsail shape to improve performance, the Nonsuch 30 is probably not the best choice.

On the starboard side, Jay sits between his mother, Babs Abbott, and wife, Darlene Kordonowy; on the port side are Jay's father, Tony Abbott, and stepnephew, Nazar Kamenchnko.



Resources

International Nonsuch Association http://www.nonsuch.org>

Long-distance cheeses

Secrets of a cheese lover revealed at last

by Lin Pardey

HETHER YOU DECIDE ON COCKTAIL nibbles, late-night snacks, a sandwich filler, or a main course spice, cheese is one of the most versatile ingredients in a cruiser's galley. The addition of tasty chunks of spiced feta can change a boring salad into a gourmet treat. A hefty spread of toasty melted mature cheddar on top of simple onion soup can turn the grayest passage day five shades brighter. But buying, preparing, and keeping a variety of cheeses afloat and edible for long periods take planning.

If you enjoy the flavor and texture of long-life processed cheese products, such as Kraft cheddar, you'll have little problem finding them worldwide. I was surprised to see three brands of boxed, processed cheese in the most isolated African villages, clad in the same packaging I'd seen in Aden and the Tuamotus. These processed cheeses last up to two years with no refrigeration as long as they're kept in their sealed containers. I've cut them into half-inch cubes and skewered them with pickled onions or green olives for a cocktail snack at a cruisers' picnic. Not wondrous ... but definitely edible. Grated, processed cheese adds variety to salads. But this manufactured milk product is no substitute for unprocessed cheese in cooking because it does not melt or brown and can cause some cheese-dependent recipes to fail.

Grated Parmesan cheese also keeps well afloat with no care other than protection from moisture. I find it is best to avoid cardboard tubes of Parmesan because the humidity afloat will cause the cardboard to soften and the cheese to mildew. I buy sealed plastic pouches instead.

If you have been at sea long enough to use up your fresh cheese, a good



quick-browning cheese topping for casseroles can be made by mixing half mayonnaise (regular or light style) with half grated Parmesan cheese, plus a few drops of vinegar, and then grilling or baking. This same mix works for cocktail treats. Put a dill pickle slice on a small round of toast, top it with a mound of Parmesanmayo mix, and grill until browned.

The cheeses we depended on during passages on 24-foot *Seraffyn* were canned Brie and Camembert. We try to buy the Danish brands that are not stored in the refrigeration section of the market. If we could find only cans (usually packed inside small, flat, square cardboard boxes) marked "keep refrigerated" or "keep cool," I still bought a dozen for each passage. In our experience these will last up to six months if stored low in the boat where the temperatures are the same as the outside water temperature. In tropical waters I would only count on two months.

These cheeses definitely age in their cans. Most of them are marked with a "use by" date. I look for cheeses nearing expiration because I have found that we like the texture and flavor of longer-aged Brie and Camembert.

At sea, when fresh provisions tend to run short, Lin Pardey relies on cheeses for quick lunch solutions. A contented Larry Pardey, above, goes along with the plan.



Preservation ideas

To enjoy a wider variety of cheese — such as cheddar, Edam, or feta — here are several preservation ideas. If you have a freezer, try sealing cheddar cheese in plastic containers and storing them in the upper area of the chest. The cheese will be more crumbly when it's defrosted, so it is wise to select younger cheddars for preservation by freezing. If the cheese is well sealed, the flavor will change very little. Water-packed cheese, such as feta, will freeze well as long as there is some space inside the container to allow for expansion of the liquid. However, I've never been satisfied with the flavor or texture of Edam or Colby cheese kept this way.

Simple refrigeration or icebox storage in sealed containers works well for cruises that last less than three



Cheese makes a perfect snack when you find yourself in the midst of an impromptu get together. Lin made up a batch of grilled cheese sandwiches, at left, cut them into tiny squares, and served them to new friends in Mar del Plata, Argentina. The cheese shop on facing page is on a farm near Palma, Mallorca. Shopkeepers in cheese markets around the world expect you to ask for a sample before choosing which cheese you'll buy, Lin notes.

weeks (the majority of passages we make fall within this time limit). If you can get small waxed cheeses and store them so the wax stays intact, they will keep perfectly for up to two months at temperatures below 55° F.

The vinegar caper

Unwaxed cheese should be wiped lightly with vinegar and then wrapped in plastic wrap and stored where it will not be bumped around too much. If any mold forms, it should be cut off and the cheese wiped with vinegar again. If you prefer using plastic cheese boxes rather than wrapping each cheese separately, wipe the inside of the box with vinegar once a week to discourage mold formation. Since mold does not penetrate more than a fraction of an inch below the surface of a hard cheese, it's most economical to buy one large chunk rather than several smaller ones. Once a week or so, cut off the cheese you plan to use for the next meals, remove any mold from the main supply, and wipe it down with vinegar. By doing this simple step, your loss due to mold will be reduced by up to 50 percent. When I have room in my ice chest for 2-kilo blocks of cheddar such as sold by many ship chandlers, I find that I lose about 8 to 10 percent of the cheese to mold during a month's cruise.

Cheese submerged in olive oil

Water-packed feta will last for two months under refrigeration or on ice. But when we were provisioning *Taleisin* in Fremantle, Australia, the proprietor of the Mouse Trap Cheese Shop taught me an even better way to preserve and improve the flavor of feta with no refrigeration at all. Simply submerge the feta in pure olive oil in a sealed container. (I use the oil straight from its container; I do not preheat it in any way.) Our feta stored in olive oil in a clean glass pickle jar lasted for more than a year in the bilge during a cruise through the Indian Ocean. There was no change in flavor.

The same cheese specialist taught me a wonderful way to create what can only be called "gourmet feta." I clean a 1-gallon pickle jar and fill it loosely with 2-inch cubes of feta. I then pour 3 tablespoons of green peppercorns on top of the feta and shove about 10 inches of fresh rosemary into the jar before I fill it to within an inch of the top with fresh olive oil. If you do not like things that are hot to the tongue, you can use as a substitute 1 tablespoon of black peppercorns plus several bay leaves or green and red sweet pepper flakes.

After three months, the feta jar will be at its prime. You can add fresh feta to the oil at any time. Be sure to dry the cheese well by letting the water it was packed in by the manufacturer drain off for at least 10 minutes. Then pat it dry and shove it into your oil-based mixture. I like to wait until I have used enough of the original cheese so I can place the fresh supply below the more-spiced cubes without making a mess with the olive oil.

To serve this oiled feta in salads, I use it as it comes from the jar and even use some of the spiced oil as a dressing. For hors d'oeuvres I drain the feta on a paper towel before slicing it onto biscuits or toast. The texture of the cheese becomes creamier as it ages. After six months I find the feta packed in green or black pepper becomes a bit stronger than I like, so I transfer any that is left to plain olive oil. The plain oil can be reused for up to three years. The spiced oil can be used two or three times, but after 18 months I have found that mine becomes cloudy and less-appetizing, so I discard it and start again with fresh oil.

Hard cheddar cheese can also be kept this way. I put up 5 kilos into plain olive oil before we left Fremantle, and it didn't change flavor or texture for three months. After that I detected a slight flavor change, which was noticeable if we used the cheddar as it came from the jar. But mixed with other ingredients and cooked in any way, the cheese tasted just fine.



Olive oil will leak out of everything! So I store my big cheese jars inside a bucket in the bilge. I line the bucket with old newspapers to soak up any leakage. A bit of trouble, yes, but what a treat that spiced cheese is when all your other fresh food is a memory.

Dorothy Skeates, who cruised extensively for several years on Wylo II (a boat with Spartan accommodations) before working as charter cook along the Great Barrier Reef, still waxes her own cheeses. Dorothy chooses firm cheese and cuts it up to the size she'll use in one week. She then wipes each chunk with vinegar and wraps it in three layers of muslin that's been soaked in a solution of half boiled water and half boiled vinegar and sun-dried. Dorothy then paints each cheese with melted candle wax (called paraffin wax in the U.S.). She coats each cheese three times to be sure it's perfectly sealed. The cheeses are then stored below the waterline, well wrapped in newspaper to prevent the wax from breaking. This method is more labor-intensive than the others I've listed, but the waxed cheese takes less space than jars filled with oil, so waxing is a good choice for non-spiced cheese on smaller cruising boats. The cheese will last up to six months with this system.

Ye Olde England

The final cheese preservation method that I have learned in our years of exploring is a famous British Yuletide treat — expensive, but wonderful anytime, anywhere. Purchase a 7-pound whole, relatively young, round of Stilton or blue cheese. Find an airtight crockery or glass container to fit closely around the cheese (within 1/2 inch on all sides). Scoop a hole approximately half the size of a teacup into the top center of the cheese. (Eat this center scoop with fresh grapes or a slice of apple.) Pour fine port wine of your preference into the depression. Set the cheese in a locker low in the boat where it will keep relatively cool and the motion will not be too violent, so the wine can seep slowly through the holes and permeate the cheese. Top up with port once a week. Taste the cheese two or three months later. If it withstands your sampling, it will last for up to a year.

In England this is called "drunken Stilton," traditionally eaten by spooning it on top of crispy toast as you sip your after-dinner wine in front of a holly-bedecked fireplace. But it is equally good as a reminder of your friends and family up north when you are finishing a meal of fresh lobster and enjoying a dessert of fine sweet pineapple to celebrate Christmas or any special occasion — at anchor beside a coral atoll.

For further reading ...

This article was excerpted from the Pardeys' book, *The Care and Feeding of Sailing Crew*, which has just been updated and released as a third edition. It is available from



the Good Old Bookshelf <http://www. goodoldboat.com/bookshelf.html> or by calling 763-420-8923.

The rebirth of Maruska

This orphaned Pearson 365 will rejoin the fleet of good old boats

by Dale Tanski

OST OF THE TIME I AM LOOKING AT OR looking for boats. If there were a self-help group for excessive boat ownership, my wife would have me enrolled. Our fleet numbers over 20. Hey, you have probably said it yourself, "No one boat can do it all."

Some people collect lost cats. I collect boats, most of them project boats. I regularly do quick Internet searches for sailboats under \$20,000, and it's nice to see what's out there for a reasonable buck. That's how I found *Maruska*. Perhaps she found me. In any case the events that led to her purchase had many fantastic twists and turns.

Maruska initially popped up on one such search. A \$20,000 maximum price, a 35-foot-and-up length criterion, and a simple push of the Enter key on my computer brought up several pages of intriguing prospects.

Most often, as I make a quick glance down the list, I see that the offerings are too old, too wooden, or too ferro or else they're boats you would need swim fins and a mask to see. On this day, however, one listing caught my eye. It was a 1976 Pearson 365 ketch in Havre de Grace, Maryland. We had looked at several of these ketches in the past. All were basically out of our price range, and the timing wasn't right. But I love to look at boats. The Pearson 365 turned into a "someday boat," like many, many before it.

When the listing for a Pearson 365 hit the screen for the magic \$20,000 number, the wheels in my head began to turn. I saw right away that the listing was cleverly crafted. There was no equipment inventory, no vessel specifics, and no information except for the words "project boat." It was topped off with a half dozen pictures of what looked like a Pearson 365 afloat, along with several fuzzy pictures of a "modified interior."

I returned to the listing again and again for the next several weeks. I compared pictures of the boat with pictures of sister ships and tried to determine just what this particular project was really all about. I









At first glance in the boatyard, Maruska looked like the "someday boat" of Dale's dreams (1). Like so many other sailors, he'd fallen in love with the Pearson 365 long ago. But long ago the timing wasn't right and the price was too high. "Someday" had arrived in the Havre de Grace Marina, however, and now the price was right. The lower price, unfortunately, reflected the condition of the boat's interior. Listed as a "project boat," *Maruska* was all that and more. The rig was in good condition (2) and, all in all, Maruska was in good shape on the outside (3). But the bent ladder at the stern was indicative of her true condition (4).





The modified mizzen mast step was one of the exterior modifications by a previous owner who, shall we say, did things his own way (5). The starboard cockpit locker shows the red engine cooling expansion tank, hot water heater, pressure water pump, and blue battery charger (6). The port cockpit locker reveals a rectangle where a battery once sat (7). The rear bulkhead had been cut away and a "wiring area" installed. The Magic Marker stuck in the hose to prevent sea water from entering the boat is an interesting touch. Opening the companionway hatch had taken Dale and his son, Eric, into a whole different world (8).





shot off an email message to the listing broker and then a phone call. Both went unanswered.

Life is hectic. I wanted to know more about the boat while at the same time I didn't want to know, so I never followed up. One morning I glanced at the ad and my heart sank. Apparently she had been sold because the Pearson 365 for \$20,000 no longer showed up. I scanned the listing rows one last time ... What was this? A price reduction to \$15,000!

I quickly called Arvid, the listing broker and owner of Havre de Grace Marina. With startling machine-gun repetitiveness, Arvid insisted that I would have to "look at her." Her previous owner had modified her interior, and I would have to "look at her." What she had for gear was onboard, but I would have to "look at her." She needed a lot, but I would have to "look at her." Arvid said it was tough to explain over the phone. He repeated for the fifth time to come and "look at her."

I decided to go.

Long ago, I learned to make out a contract. In the past I've lost several boats because of time wasted from indecision, the "we-will-sleep-on-it excuse." One Fuji 32 in the Florida Keys was in the path of a hurricane, so the scared owner took the first bid — any bid — that came along. The hurricane, by the way, took a sharp left after I heard the news that my lowball offer was too late. I even lost one while driving to look at the boat!

I emailed a contract and faxed a copy of a deposit check for *Maruska* to Arvid. This turned out to be one of the best decisions of the day; there apparently were plenty of people watching and waiting, and the \$15,000 number shook the bushes.

My son, Eric, and I pulled an all-nighter, and 370 miles later I was looking at what appeared to be a reasonable Pearson 365. She needed a good cleaning and some new running rigging, but, all in all, Maruska was in good shape on the outside. Upon sliding open the companionway and descending the cabin ladder, however, we entered a whole different world. It was a cabin filled with questions, loose ends, missing pieces, and an awful smell. From the forward bulkhead aft, almost everything had been modified or removed. The U-shaped galley had been literally cut down the center of the icebox. The overhead storage unit had been non-surgically removed via Sawzall.

There was a gaping hole in the sole where beautiful teak cabinetry once stood, cut wiring and plumbing dangled every-

The rebirth of Maruska

where, a good portion of the hull was exposed, and you could see straight through to the transom on the port side. The port and starboard water tanks had been cut open, the engine enclosure was gone, rank bilge water had been high over the sole. The depressing list went on and on.

My son and I hurried topside for some fresh air. At breakfast, our discussion went from "no way" to "what if?" and we headed back to the Havre de Grace Marina for another look. Unfortunately, nothing had changed; the interior of the boat was still a disaster. The story, as it unfolded, was that the previous owner had retired and purchased the boat. His plan was to make some changes. When he was done, he and his wife would sail away.

Unfortunately, he died six months into the project. Sadly, he took his dreams and aspirations with him, as well as any indication of which direction he was heading on the project. Instead of doing one project at a time and completing it, the owner had begun 20 or more; the result was chaos. The Pearson had languished for a year and a half, literally an orphan. She was taken from the original marina when her slip contract was canceled and towed to Havre de Grace.

A steady procession of would-be buyers and dreamers crossed her decks weekend after weekend. The broker said that *Maruska* had generated more inquires than any vessel in his 30-year history of selling boats. He got to the point where he refused to answer email inquiries. Just during the time we were aboard that Saturday morning, the broker received three email messages and two phone calls.

I was the only one foolish or visionary enough to sign a contract. The truth was that each item that needed attention required only modest repairs. The grand total, however, of dozens of individual things to fix was massive, even for a project boat veteran. Perhaps my quick emotional attachment to this orphan clouded my senses.

I have to admit that for me, *Maruska* will be the boat project of my lifetime (so far). I have a chance to make her into what I think a sailboat should be and an opportunity to sail her home to Buffalo, New York.

Please join me in the upcoming issues of Good Old Boat as I take you through the rebirth of Maruska.







The real puzzles were in the cabin. Almost everything below had been modified or removed. The U-shaped galley had been cut down the center of the icebox. There was a gaping hole in the sole. Cut wiring and plumbing connections dangled everywhere. Both water tanks had been cut open. The engine enclosure was gone. The rotten abandonedboat smell drove Dale and

Eric out of the cabin for further contemplation. But after a breakfast discussion, they returned to *Maruska*. Although nothing had changed, Dale made an offer. This was the boat of his dreams, after all, wasn't it? The nav station (9), half a galley (10), and the port settee and mainmast chainplate (11).

An all-purpose settee berth

A cruiser's improvements for sitting and sleeping

by Phillip Reid

The Reids' three-in-one berth in its settee

configuration with the remov-

able fiddle set in place to restrain the cush-

ion. The fiddle's short steel rods fit into the eye straps through-bolted through the darker strip of teak below the fiddle, which itself is through-bolted through the liner. The thin plates below the eye straps serve both as shims to prevent wobble and strakes to prevent the rod ends from digging into the wood.

B ERTHS NEED TO SERVE DIFFERENT functions depending on who's in them and whether the boat's in port or at sea. The traditional small sailboat layout includes settee berths to port and starboard, serving as places to sit and also as single berths for sleeping. These berths should be the most comfortable ones on the boat when you're in a rough sea, as they are close to amidships and therefore subject to the least motion.

A safe sea berth needs something to keep you from tumbling out if the crew tacks while you're asleep. That's where bunk boards (also called lee boards) come in. The concept is similar to the high railing used to keep babies in their cribs. In order for the bunk to be used as a settee again, though, the bunk board must fold down or be removed. Leecloths, canvas sheets attached to the inboard edge of the berth and to the overhead by cords through grommets, are another common option.

In port or at anchor, it's nice to have wide berths to stretch out on. Most settee berths are convertible to functional doubles by adding a swingup or drop-in extension platform and corresponding cushion. This gives you much more flexibility. You can have another couple aboard as overnight guests, sleep in the main cabin yourselves rather than the V-berth or aft quarter berth, or just give a single occupant (at anchor or in port) considerably more room.

Fiddles at the inboard edge of the settee berth help hold the cushions in place when the boat heels. Not having them, I quickly discovered, means you sometimes sail with your settee cushions piled on the cabin sole.

How could I have a bunk board, a cushion fiddle, and a berth extension at the same time?

Everything in one

I realized I wanted a three-in-one, allpurpose place of repose providing: a settee, a sea berth, and a convertible double. The sea berth with bunk board was required; the convertible double berth was a luxury. For a 28-foot boat, there was a list of considerations to work through before I would know if having a convertible double berth in the main cabin was feasible. Here's what I wanted to know:

• Would the total width of the settee with the extension be enough for a

functional double?

- Would the extension when in use eliminate all walking space in the main cabin?
- What would it get in the way of when deployed?
- When not in use, where would the cushion be stowed?

I found encouraging answers to all four of those questions, leaving me with the real stickler:

• How could I have a bunk board, a cushion fiddle, and a berth extension at the same time?

Solving this one was one of my better ideas. It took me about three

years to figure it out, and I was quietly proud of it. To my chagrin, it took my wife five minutes on the boat to figure out something simpler and better.

The simplest solution is a hinged board, the length of the berth, that doubles as a bunk extension and bunk board, depending on what position it's in, and a removable fiddle that serves both the settee and the double bunk.

A cushion fiddle needs to be high enough to hold the cushion, but no higher; excessive height means the top edge will push into the bottom of



To turn the port settee into a single berth with a bunk board or a double berth with extension, Phillip's wife, Andie, removes the fiddle from its mounts (1). The extension board lies flat (more or less) under the cushion (2). There's a gap between the fiddle mounting strip and the board, so the board has room to swing all the way out (3).

your thighs when you sit on the settee. Two-and-a-half inches up the edge of the cushion is a good fiddle height for a firm 5-inch foam cushion. In spite of all that, in really bouncy waves it may still bounce off the berth without Velcro, snaps, or similar restraints.

Settee fiddle

My fiddle is a ½-inch teak plank, the length of the bunk. I drilled six centered, 1½-inch by ¾6-inch holes in the bottom edge of it, into which I tapped six 3-inch pieces of ¾6-inch stainlesssteel rod after first dipping them in epoxy. This was stainless-steel rod from the hardware store — not the chain home-improvement warehouse variety. This hardware-store rod is sold in 12-inch pieces. A drill press made it much easier to get these holes straight, but if you're careful you can

certainly drill straight 1½inch holes with a hand drill, especially if you use a vise to hold the plank.

My original thought was to have the rods fit into corresponding holes in another plank permanently through-bolted to the boat. Didn't work. Even with a drill press, it's hard to get the holes perfect enough that the rods don't jam, and during normal life, if they get bent just a bit, they will jam. Also, in order for the berth extension/bunk board to swing all the way out, the edge of it has to protrude a bit past the vertical edge of the settee, and that means a 1/2-inch fiddle will not mate edge-to-edge with a 1/2-inch plank screwed flush to the vertical surface below it.

I ended up through-bolting eye straps to the face of the lower plank and screwing small pieces of polished stainless steel (from a strip I bought at the hardware store) below the straps to keep the ends of the rods from digging into the wood. The plates also act as shims, removing the wobble of the rods in the straps.

It's easy to cut ³/₁₆-inch stainlesssteel rod and thin plate with a decent hacksaw and sharp blade. Put the piece in a well-secured vise and draw the blade carefully toward you at the desired cutting point, keeping a firm grasp on it. It will score the metal on the first or second stroke. Then you can repeat the motion for a clean cut.

It's better to make the cut in one direction only, drawing the saw toward you and then placing it back in the groove, rather than using a back-andforth motion, which puts stress on the piece, the workbench, and you, while increasing the likelihood of the saw's jumping out and scarring the piece.

...when the berth is a settee, the berth extension/bunk board is folded flat under the cushion and the fiddle is in place.

Finishing the stainless

With the plate, I lined up the top edge of the strip with the top edge of the vise, ensuring a square cut. Clean up the cut ends on a bench grinder or bench sander (this worked great on the plate ends) and polish them with 220- and 400-grit sandpaper and then with the polishing attachment on a Dremel and some toothpaste or metal polishing rouge, which is available at welding supply stores. Always wear safety glasses or goggles while working with metal — no exceptions.

Normally, when the berth is a set-

tee, the berth extension/bunk board is folded flat under the cushion and the fiddle is in place. When the berth needs to be a sea berth, the fiddle is removed and the berth extension/bunk board is swung up to the upright position and locked in place with barrel bolts that slide into holes in the bulkhead.

To extend the bunk into a double, this extension is swung all the way down into the extended flat position and supported at the forward end by a stout strip of hardwood through-bolted to the bulkhead and in the middle and after end by two removable legs.

Cool trick: I couldn't find 1-inch teak dowels, but after playing around a little bit, I got the generic white hardwood ones to look almost indistinguishable from teak. First I painted on a heavy coat of Zar Teak Natural stain with a brush and let it dry. Then

I sanded off most of that with 150-grit paper, leaving behind a pattern that looked more or less like the pronounced grain pattern found in teak. This went quickly. I followed that with a light, even coat of stain, rubbed well into the wood with a rag, not a

brush. This is the coat that actually colors the wood. Once that coat's dry, you can oil or varnish the dowel to match the rest of your work.

Lengths of rod

The legs have short lengths of ³/₁₆-inch rod that fit into holes in the underside of the berth extension. I put rubber cups, the sort used with canes, on the other ends of the legs so I wouldn't have to drill holes in the cabin sole. I made small receiver plates out of ¹/₁₆inch scrap brass and recessed them into the bunk board to help keep the





Andie unbolts the bunk board and lets it swing down into berth extension mode (4). The forward end of the berth extension rests on a block in the bulkhead (5). The fiddle will retain the new insert cushion, yet to be made (6).

leg rods from enlarging the holes in the bunk board over time.

After outlining them, putting on my safety goggles, and drilling the holes (using a sharp bit and a little oil for lubrication), I cut the brass pieces out with a metal blade on a good jigsaw set at medium-low speed. It cut as easily as wood. Follow the finishing directions for the stainless pieces discussed on the previous page.

Recess the plate

To recess a metal plate in wood, outline the metal piece with a pen or pencil and carefully score the outline to a uniform depth by tapping in a sharp chisel. Use a small hammer (12 ounces or less) for good control. Then place the chisel blade as flat as possible and gently tap it inward from the scored edge using baby taps to peel off a layer of the wood.

Repeat until the desired depth is reached. To dress up the wound in plywood, which will look white around the edges of the piece where you've knocked away the veneer, paint the clean edge with wood stain chosen to match the veneer.

The fiddle fits into a corresponding set of holes at the edge of the berth extension/bunk board to retain the extension cushion. I overdrilled these one bit size to make the fit easier.

Full-length hinge

The berth extension is fastened to the boat with a full-length stainless-steel piano hinge. Be careful here. If your settee edge makes a sharp 90-degree bend from horizontal to vertical, no worries. Most fiberglass liners, though, will have some radius to this edge. That makes installing a piano hinge tricky. If the hinge isn't mounted exactly horizontally, the board won't lie flat when stowed. But if it's mounted too far back, the board won't swing out flat. Mine barely works.

You've got to play around with it and see what it will do before drilling holes. If the edge has too pronounced a radius for the piano hinge, you may have to go with a swing-down berth extension that folds against the vertical face rath-

There is plenty of cabin sole area in the boat's design to make this workable, and the berth is wide enough for most people.

er than the horizontal when stowed, and a separate, removable bunk board that can be attached between chocks mounted on the bulkhead.

I always use machine screws, never self-tapping screws, in fiberglass. Use a hole gauge to find the bit size that's a fraction too small for the screw to go through. The screw will then tap itself into the hole like a tap tool in metal and make a tight fit without chipping the gelcoat and reaming out the hole as a self-tapping screw will do. If you clean the hole and put in a dab of sealant before driving the screw, the hole will be watertight.

A bunk board should be stout enough to check a full-sized adult if the boat is thrown off a wave. Therefore, for strength the piano hinge is through-bolted in every fourth hole (about every 7 inches). Acorn nuts look nice and prevent chafe on the cushion when the bunk board is stowed flat. The rest of the holes have %-inch sheet metal screws. The bunk boards are secured to the bulkheads by brass — solid brass, not brass-plated mild steel — barrel bolts from the hardware store, which are perfectly adequate for the purpose and cost one-fourth to one-tenth of those sold for marine use. I screwed small brass receiver plates into the bulkheads to add strength and durability to the holes.

If there's not enough clearance between the edge of the bunk board

and the bulkhead, you can recess the receiver plate into the bulkhead. (Use the instructions I describe earlier on this page for chiseling wood to make room for a recessed plate.) I used ½-inch solid teak for the cushion fiddle, 1-inch generic hardwood dowels (stained

and oiled to match the teak) for the extension legs, and ½-inch teak-veneer marine plywood for the berth extension and bunk board.

With the berth extension/bunk board stowed and the fiddle in place, the berth is in settee mode. When the board is deployed in the upright

A note on wood

ost people would use mahogany or some other hardwood, rather than teak. Teak costs \$14 to \$16 a board foot, while mahogany can be had for about half that or a little more. I used scrap teak that I had on hand.

I wouldn't pay \$150 for a sheet of teak plywood just to do this job; most of it would be wasted. Topgrade exterior plywood, painted, would be my choice.





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double-berth mode, the berth extension/bunk board is swung all the way out, the cushion is in place, the fiddle moved to the end of the berth extension to retain the cushion, and the removable legs support the extension. A piece of eggshell foam cut to fit the entire berth, kept rolled up out of the way most of the time, will keep sleepers from noticing the crack between the cushions. This works in the Vberth too.

position, it's in sea-berth mode. For



There is plenty of cabin sole area in the boat's design to make this workable, and the berth is wide enough for most people.

The insert cushion will fit partially behind the settee back and in the space below the back, which is left blank so that there's full sleeping width on the berth. This is a thoughtful feature, but the drawback is that there's no permanent lower back support on the settee. The cushion, along with throw pillows, will help with that.



The main cushion is in place in the berth extension mode (7). There's plenty of space in the cabin with the berth extension deployed (8).





The starboard settee, at left above, also received a bunk board addition. This board does not double as a berth extension, however. The barrel bolt at the forward end is on the inside, as the edge of the board is flush with the edge of the bulkhead. The fiddle is fixed and adds strength.

For further reading...



Several books offer neat things a boatowner can do to make life aboard more comfortable or convenient. Here are just a few that come to mind: Don Casey's 100 Fast & Easy Boat Improvements is loaded with good ideas for any do-it-yourselfer. Cruising World's
Workbench, edited and illustrated by Bruce
Bingham, is a gem. And Zora Aiken's Good Boatkeeping offers a host of tips and projects. Check out John Roberts' Optimize Your Cruising Sailboat also. All are available at http://www.goodoldboat.com/bookshelf.html or by calling 763-420-8923.





Good old classifieds

Boats for sale



Ericson 25

1973. Completely rebuilt, fully equipped, well-loved, and ready for cruising. '01 Yamaha 8-hp 4-stroke OB. '96 custom tandem aluminum trailer. Includes shore stands. Features: hard dodger, A/C, refrig, shorepower, radar, GPS, dinghy, complete sails (including spinnaker), much more. Shoal draft w/CB. Last sailed on 2-month Intracoastal cruise in '04. Husband's toy: I'm recently widowed. Boat needs a good home and owner who will get her back in the water. In central Md. \$12.000 OBO.

Patricia Snyder tonisnyder@juno.com 301-846-4971



Tripp Lentsch 29 1963. Hull #7. Rare Tripp-

designed classic. Built in fiberglass by DeVries Lentsch. Well maintained and upgraded. Awlgrip red hull. Awlgrip/polyurethane deck. 4 berths. D/S, radar, autohelm, new VHF. ST winches, RF jib. All sails including drifter and spinnaker w/pole. Holding tank, Atomic 4. A very able and attractive cruiser. Located in Conn. \$20,500.

> Ed Holahan 203-367-3598



Pearson Ariel 26 1964. Graceful, classic Carl Alberg design. Solidly built, beautiful lines, great sailer, capable and safe in heavy weather.

Sailaway condition. Hard, glossy Imron paint on topsides, interior joinery updated in mahogany. Engine upgraded w/elec fuel pump, electronic ignition, newer carburetor. Fully found, including anchors, inflatable dinghy, tandem-wheel trailer. Located Lake Pepin, Minn. \$7,000. Chuck Day

larksailor1@earthlink.net 612-825-7608



Whitby 42s Whitby 42s with experience. Seven from which to choose, starting at \$99,900 USD. 1976 through 1983. Visit http://www.yachtsls.com.

Doug Stephenson 705-527-0442



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1980. Meticulously maintained and continuously upgraded. One of the fastest cruisers for its size w/excellent sailing characteristics. Must be seen to be appreciated. A serious performance cruising sailboat. Awlgripped '03. Same owner 23 years! Eager to sell! In Jacksonville, Fla. \$49,900. Additional photos at <http:// www.whitneysmarine.com>. Whitney's Marine

800-827-3027



Pearson Triton Hull #184. Sailaway cond. Restoration '96-'03: barrier coat to standing rigging. Universal M3 20-hp diesel, RF, AP, S/D,

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http://www.goodoldboat.com/classifieds.html

VHF, replaced deck and exterior mahogany, interior fully restored: teak-and-holly sole, portlights, tinted Lexan cabin windows. Well-maintained sails. New: icebox/nav station, custom aluminum fuel tank, electrical panel and wiring, custom cushions, gelcoat, epoxy-coated rudder, canvas, and Bimini. Over \$35,000 invested. New baby and relocation force sale. On Cape Cod. Price reduced to \$12,000.

Stephen Jackson stephen_jackson@ml.com 609-274-6492



Compac 23

1981. Sturdy, stable, trailerable 23-ft pocket yacht set up for singlehanding. No trailer or outboard. Bought a newer 23-footer or I'd be sailing her this summer. Delivery negotiable. Chicago area. \$5,300.

> Steve Hoxworth hoxworth@core.com 708-645-0259



Corbin PH Cutter 39

Custom-designed professionally built interior. Airex-cored hull. Modern fin keel, skeg rudder, 3-bladed folding prop. Seaworthy vessel designed for extended cruising. 35-hp Volvo diesel w/100gal tank. Commissioned/documented '86. Includes 8' Whitehall sailing dinghy. Slip at Portsmouth Naval Shipyard, Kittery, Maine (across from Portsmouth, NH). Inventory, photos: <http://sailboat 9.tripod.com>. Reduced price \$165,000.

> Bob Cummings 413-772-0333 413-222-1454 cell

Hunter 30 1986 Cherubini design. Lightly used freshwater boat w/beautiful custom interior. Yanmar diesel, very low hours. Sails are like new. Moored in Va. \$19,900. Jennifer Swart mwswart@pmtnet.net

434-656-1527

Sea Pearl 21

1990. Sand-colored w/maroon trim, newer sails, camping tent, full boat cover. '95 Nissan 3.5hp. On Hutchins trailer. All in good shape. Colonial Beach, Va. \$4,000.

> John Johnson 804-224-1538

Falmouth Cutter 22

1984 Lyle Hess design. Built by Sam L. Morse Company. Cutterrigged, trailerable ocean-going cruiser. Yanmar 1GM diesel. Heavy displacement pocket cruiser in exc cond. Finished in Spanish cedar, all lockers cane-covered. Refit for cruising '02: staysail RF, lazy-jacks, watermaker, radar, refrig, SSB, stereo, 3-burner stove w/oven, cockpit enclosure. Fatty Knees sailing dinghy, Honda OB. Loaded. Must see! Baltimore. Md. \$66,500. <http://www. falmouthcutter.com>.

Manuel and Roz de Lizarriturri churruca@falmouthcutter.com 410-419-2722



Lord Nelson 41

1982 cutter-rigged, full-keel cruiser. 75-hp Yanmar diesel (new '03, only 48 hours). New bottom layup '00. New gennaker (with sock) '02. New Raytheon 4-kw radar/GPS/chartplotter '01. Other upgrades too numerous to list. Marvelous galley and saloon layout, beautiful teak interior, great storage. Sleeps 7 and cruise-ready. In Bay City, Mich. \$154,900.

Alan and Joy Doss Fairwind2@earthlink.net 989-345-7619

Good old classifieds



Stone Horse 23

Cutter-rigged sloop. Sam Crocker design. Built '80 by Landing School in Kennebunkport, Maine, from white oak framing and Atlantic white cedar planking. Loaded w/electronics and Tillerpilot. Exc care last 14 years by professional boatbuilder. Recent survey and many upgrades. 7-hp IB diesel. Comes w/mooring cover, storage cover, custom heavy-duty double-axle trailer. A competent cruising boat in show-quality cond. <http://www.geocities. com/gpsailorman>.

Perry Munson 313-886-3611



Gulf 32 pilothouse

1983 sloop. Always fresh water. Dual helms. Sail or motor protected from the cold and rain. Bimini w/removable sunshade to mast. Simulated strake hull. Full keel. Beautiful teak interior. Universal diesel, 1,250 hours. Profurl, Autohelm (belowdecks), D/S, davits. Tankage and storage for the long haul. Steel cradle. In Door County, Wis. \$39,900. Bought condo. Will consider smaller trade.

Dan Leary gulfpilothouse@earthlink.net 920-725-5469



Bristol 41.1

1981. One owner. Ted Hood design. Center cockpit CB. Draft 4'6"/10'. Westerbeke 58. 3 compartments, 2 heads w/showers. Max Prop, rubrails, Awlgrip, blister protection. Windlass, RF, refrig, propane. GPS, radar, D/S/wind. Equipped for cruising. Many upgrades, spare parts, redundant systems. 80-gal fuel, 180-gal water. Hard-bottom dinghy w/15-hp. Berthed at owners' waterfront home in New Bern, N.C.

Les Ashe bristol41.1@cox.net 252-636-0966



Rob Roy 23

1987 yawl by Marine Concepts. Pristine cond. New hull, deck, and underbody finish. Full inventory. Photos, equipment, upgrade info available. Will deliver. \$15,000 OBO.

Mark Hannon markhannoninc@msn.com 303-946-6865



Young 6-Meter

1992. Hull #128. Water-ballasted, CB, trailerable cruiser. Perfect cond. Trailer, custom cover, Honda OB, Tillerpilot, spinnaker. Potty, stove, sink, stereo. Sleeps 4. Large, full-battened main, RF jib, D/S, compass, VHF. In Arizona \$6,500.

Scott McClintock rohondo@aol.com 480-231-0959



Bayliner Buccaneer 24 1975. Sound boat but needs TLC. Bought as a project boat, but have too many projects. 9.9-hp Johnson w/electric start remote in cockpit, sails in fair cond. No trailer available. Lake Whitney, Texas. \$2,500 OBO.

Danny Barr 254-675-6392



Irwin 28 MKI 1972. Shoal keel w/CB. Boat and rigging good cond. Nice sail assortment, 30-hp Atomic 4 runs great, 6' standing headroom, trailer and cradle available. Near Minneapolis, Minn. \$8,500. Photos at <http://www.flickr. com/photos/irwin_28>.

Greg Zdeb g_a_zdeb@hotmail.com 952-922-6645

ZIP sailboat

1941 sloop #69. 3/4" hull. Original cotton sails. Could use some TLC. Last sailed '03. Pictures available. \$10,000 OBO. Fred Halpin 860-559-1622

Leigh 30

1984. Chuck Paine design, Victoria/Morris Yachts, Hasse/Port Townsend Sails. Artful Dodger, Brion Toss Rigging, Spectra watermaker, Monitor, Furuno, etc. Turnkey ocean voyager. \$119,000. Details and photos available.

Marie Wagner svtrinket@yahoo.com 360-421-6909



Bluenose 24

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Quick and easy

Curing anchor-line cha

Simple fix for those who don't want to be parted

by Rick Smeriglio

WALK THE DOCKS AND YOU'LL SEE SHORT PIECES OF FIRE HOSE USED AS chafing gear for docklines. Simply slip the hose over the bitter end of the short line, slide it to the cleat or chock, and presto, you have it. But what about a long line, such as the anchor rode? It has a hunk of metal at the working end that prevents your slipping anything over it.

When anchoring, you usually don't pay out enough rode to reach its bitter end. If you do, you have too short a rode. Different water depths require different lengths of rode, so you don't know in advance which section of rode will chafe against bow cleats, anchor windlass, anchor-roller guides, and the like.

Fire hose still works. Go to your city fire station, rural fire hall, Forest Service, or Bureau of Land Management field office and talk to the friendlies. They often have a pile of old hose out back that no longer passes pressure tests or that has holes in it. It becomes a storage problem for them, and they can usually spare a few lengths. You can also buy hose new at any fire-supply house. City firefighters use larger diameter, rubber-lined hose, whose tough exterior provides a durable wearing surface for anti-chafe on anchor rodes. Wildland firefighters use smaller diameter hose, often unlined, that has lightness and flexibility suitable for dockline anti-chafe.

Select a length of 1- to 2-inch diameter hose. Chop it to about 2 or 3 feet long and then slit it open lengthwise along its flattened crease. Get some stainless-steel snapfasteners from any marine chandler. Install the snaps along the slit, at about 4- to 6-inch intervals, males and females adjacent, but on opposite sides. Punch two holes at one end of the hose, reinforce each hole with a grommet, and tie a short length of small stuff to each grommet.

Sail out to your favorite cove, pay out your rode, and set your anchor as usual. You do actually *set* your anchor, don't you? Determine which section of rode will rub your boat. With tension off the secured rode, simply slip the opened-up anti-chafing gear under the potential trouble section and snap the gear closed around the rode. Tie the small stuff to any handy hard point to keep the anti-chafe from slipping out of position.

The next time the barometer plummets and the wind slues your boat around its anchor, you won't have to fret that your nylon rode will chafe through at zero-dark-thirty in the morning.

Got a friend in fire prevention? If so, your anchor-rode chafe worries are at an end. A typical used fire hose from city firefighters can create the best of anchor-rode chafe prevention. A smaller hose of the type used by wildland firefighters works very well for docklines.







Quick and easy

Tool Leash

A tether keeps your tools aboard

by Gregg Nestor

1⁹ VE LOST QUITE A FEW ITEMS DURING MY YEARS OF SAILING TO the aqueous, gravity-enhanced environment. It all began many years ago with my first daysailer that I kept on a mooring. During one particularly dry summer, I needed to adjust the length of the mooring chain in order to reduce the circle of swing. I attempted to accomplish this task while leaning precariously over the transom of a rowboat. With a little too much applied pressure and a little slip, I watched helplessly as one of my wrenches unceremoniously flew from my hand, did a one-and-a-half somersault that would have made Greg Louganis proud, and slid beneath the murky green water.

I had read somewhere that as soon as an item is inadvertently dropped over the side of a moored boat, you should lower a weight on a line to the bottom. The weight will settle exactly at the lost item's location. A swimmer can then quickly make the recovery. After repeated attempts, all that I achieved was a greater proficiency in my surface diving technique. Not to worry, technology to the rescue! I replaced the weight with a hefty magnet and tried again. You'd be surprised at what's down there!

Since that eventful day, I've tried to tether my tools with all sorts of line, string, and twine ... if tethering material was readily at hand, that is, and if I took the time to use it. I've had mixed success at this, but the aesthetics of bailing twine knotted about my tools is not what I'd term nautically acceptable.



Aware of my dilemma, my wife presented me with a Tool Leash made by Fastening Solutions, Inc., of Tarzana, California. This little beauty consists of a pair of self-coiling lanyards, connected together with a carabiner on one end and swivel snap hooks on the other. The lanyards stretch to 4 feet and can handle tools or accessories weighing up to 30 pounds. To make tool attachment easy, this leash comes with 10 adjustable tool rings (cable ties with eyes); additional rings are available at electrical supply houses. Once a tool ring has been fastened to a tool, the tool can easily be snapped on/off the leash. Since I've equipped my most frequently used tools with tool rings, my contribution to Poseidon's tool chest has ceased.

In spite of test after test patiently conducted by sailors to see whether tools float, the unanimous result has been the same: tools don't float. Fastening Solutions created a coiled lanyard such as the keychains available at hardware stores; it has a small carabiner and swivel snap hooks with which to attach the tool. For \$9.99, the product offers a 4-foot stretch. Or you can use hardware store parts to assemble your own tether.

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Quick and easy

TED TOLLEFSON

Halyard chocks

How to stop noise at night

by Richard Smith

H ERE'S A PAIR OF HALVARD CHOCKS I made and tried out this summer. They go a long way toward silencing those Dacron alarm clocks that can interrupt a good night's sleep. For years I've lashed flapping halyards to shrouds with odd bits of rope, sail ties, or whatever else was handy. It was a makeshift routine at best, often forgotten until

A little scrap teak, smoothed so it won't chafe precious halyards, can provide you and your neighbors with a good night's sleep. Installed about two-thirds of the way between the mast and spreader tip, these teak chocks prevent your halyards from clanging on the mast. the banging woke me up. I didn't like the misplaced ropes and aggressive tiedowns that didn't get the halyards far enough away from the mast anyway, but somehow I never got around to something better.

Then I remembered admiring a British friend's solution one windy morning long ago when we anchored together in the Dee Estuary. As nearly as I can recall, this was how it was done:

Take some scrap teak and cut two pieces about 1½ x 3 or 4 inches; my chocks were cut from the remnants of a 1½-inch board. For each chock, shape the end to make a well-rounded mouth to hold the loose halyard against the spreader before winching it tight. There's nothing critical about the dimension as far as I can tell, but be sure to round all edges smoothly to guard against chafing. Chisel and file the concave edge into the face that fits against the spreader to make a snug fit. Bed it down securely with countersunk self-tapping screws, and place it two-thirds of the way between mast and spreader end.

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Build your own cradle

One man's response to an emergency haulout

by Jim Hawkins

When My WIFE AND I WERE TRAPPED BY FOG IN BURGEO, Newfoundland, we met Dave and Fran Dickenson, who were trapped there as well because their engine had blown up. They were cruising on *Saskatchewan*, a beautiful cold-molded, wood/epoxy composite boat Dave had built in England. They were in Burgeo because the province of Newfoundland maintains many marine centers with Travelifts.

While Ellie and I were alternately having fun and being bored in the fog, Dave and Fran were preparing their boat for winter storage. Their summer cruise had ended abruptly.

Canadian marine centers are designed to support fishing boats and make no provision for blocking up sailboats for storage on land. This meant that Dave had to build his own cradle. Fortunately, Dave is a shipwright who, when

not out cruising, maintains a fleet of wooden shrimpers on Chesapeake Bay. I was awed by the prospect of having to build a boat cradle, so I watched Dave in action and took notes and photos.

(For a yacht that will remain unattended for months we believe a cradle is superior to jack stands.)

just enough to remove the spacers so the weight of the boat descending that final inch can spring the cradle into tension. Construction will probably take a few hours, so work out the timing with the lift operator.

the lift operator. Through-bolt 2- x 4-inch

Later, Dave and I worked together and prepared these instructions.

The cradle I describe works for a boat with a full keel or a keel long enough to support a boat on blocks, and the weight of the vessel on the crossbeams provides an anchor point for the hull supports. When these supports are all tied together, they resist any forces that could cause the boat to topple over.

For a yacht that will remain unattended for months, we believe a cradle is superior to jack stands because windgenerated vibration can sink metal stands into soft ground and loosen them from the hull. A cradle, with its heavy load, will sink into the ground as a unit.

An emergency of the sort Dave and Fran faced is not the only reason to build your own cradle. A new steel cradle could cost as much as \$2,000. Dave's self-built cradle cost

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Alpenglow Marine Lights P.O. Box 415 • Eureka, MT 59917 • 406-889-3586 www.alpenglowlights.com lateral supports to the beams so the ends of the supports clear the turn of the bilge and touch the hull at about the waterline. Place one on each side of each beam on both sides of the hull.

only a few hundred dollars and is just as good.

the illustration. Mark the center of the beams.

To begin with, you need three large beams, the bigger the

better, but try for 8 x 8s or larger, depending on the weight

of the boat. If necessary, you can laminate each beam out

of three or four 2 x 10s. The wooden beams can be a little

shorter. Cut notches at the ends of the beams as shown in

a 1-inch-thick spacer on each beam astride the centerline. Using the Travelift, move the boat over the beams. Lower

the boat onto the beams, adjusting them to get the boat

exactly on the center lines. Later the lift can raise the boat

longer than the beam of the boat itself, but they must not be

Place the beams on the ground with the notches up. Place

If bolts of proper length are not available, use threaded rod cut to length. Place washers between all nuts and wood. The project requires a handsaw, hammer, suitable wrenches, and a drill capable of pushing a long $\frac{9}{16}$ -inch bit through soft wood.

Cut one end of each of six $4 \ge 4$ or $6 \ge 6$ compression struts shaped to fit the notches previously cut into the ends of the beams. Cut each strut to length so that each pair of lateral supports and its strut (with the lower end of the strut lodged in the notch at the end of the beam) all come to rest at the same point on the hull. The struts must stand at least vertically. It's better still if they lean in toward the hull.

Bolt the upper ends of each pair of supports and its strut together, tightening the ends of the supports to the strut. Mount 12-inch square pads covered with carpet material between the supports and the hull. Place the supports and struts in position with the pads against the hull and the lower end of each strut lodged in the notch on the beam.

Now using the Travelift, lower the entire weight of the boat onto the cradle. This puts the structure into compression and makes the notches in the beam ends work for a living. The lift can now be removed if necessary, but it's best to keep it in place until you have bolted crossbraces on the struts to minimize any fore-and-aft lean. There you have it.

At that point, all Dave had left — after decommissioning the boat — was to build a frame on deck and cover the boat with tarps and fishnet, all properly tied down. Oh, and then there was the small detail of the blown engine. Well, you get the idea. Let's hope the rest of us never have to face such an ordeal. But thanks to Dave, at least now we know how!



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HONDA

How one cruiser swapped power for ease of handling

by Bill Ronstadt

O UR 8-HP HONDA, ALL 98 POUNDS OF IT, IS FOR sale. When we bought the engine back in 1995 it was intended to help our 1976 Norstar Flicka fare better in a seaway. Being short and stout, she tends to hobbyhorse in a heavy chop. The tides and winds of the upper Gulf of California provide plenty of that.

Attracted at first by Honda's reputation, the clincher for us was the engine's availability at that time in an "extra-long shaft" (25-inch) version. All the better for keeping the prop submerged. It proved to be a terrific product, with power to spare, smooth and quiet, a 5-amp charger, and never a hiccup in all the hours we put on it. But it was just too heavy for us.

I'm 60-plus, and shall we say I've been in better shape? My dear wife, Liz, is way behind in years, ahead in wisdom, and a heck of a lot sweeter on the eye, but she now contends with a lower back that's been through surgery. I rigged up pulleys with a rope and foot loop so she could raise and lower the engine with leg strength. That worked fine for her, but old fuzzy here still had to horse it up to and down from the outboard bracket on launch and retrieval. Who needs the Honda T-shirt when the lower unit is already imprinted in your chest? It was a wheeze.

"Plus, it puts us out of trim, dear." Gripe, gripe. You are safe to assume I was the first to cave.

Throughout most of the outboard industry, "long shaft" meant 20 inches as measured from the horizontal surface on which the engine rests to the cavitation plate above the propeller. But, avast, matey! On a Honda 2, "long shaft" means 23 inches. A new, air-cooled, Honda 2-LS now decorates *Sarafina's* transom. That's close enough to 25 inches for me, and I can put the little hummer over my head with one hand.

Grave concerns

Aside from the obvious compromises incurred when making drastic reductions in horsepower, I had grave concerns over one remaining detail. The Honda 2 has a small integrated gas tank. My apprehension was spawned by the memory of rough seas and perilous attempts to pour more fuel than salt water into the old Seagull outboard. Liz reminded me I used to perform that task "with all the grace and agility of a rooster with socks on." It had to be addressed. Simply losing the socks was not the answer. For some of us, certainly for me, the better solutions to such problems emerge out of the mists between waking and sleep. Before drifting off the next few nights, I planned to submit this one for review. Morning Two showed promise. A few years back, I enjoyed flying radio-controlled model airplanes. This particular solution lay in combining aspects of both hobbies.

pump

Tygon tubing

FD TOLLEFSON

barbed fitting

Filling up the little kicker now takes about 30 seconds with a small hand-cranked gasoline pump no bigger than a bar of soap. Mounted on a block of wood clamped to the stern pulpit, it keeps all aspects of filling and topping off the tank within easy reach of the cockpit. Manufactured by Hobbico and designed for use with gasoline and glow-fuel models, the pump costs \$13.99.

In our application on board, the suction side of the pump is fitted with a few feet of small-diameter Tygon tubing made for gasoline transfer and available at hobby shops. The tubing is connected to a small barbed fitting inserted downstream from the priming bulb in a standard outboard fueling hose. A small \$13.99 pump meant for filling the tanks of radio-controlled airplanes makes it easy to refuel or top off the 1-quart tank for a 2-hp engine.

Discharge fitting

The other end of the hose is snapped to the standard brass discharge fitting on a 12-gallon fuel tank located under the stern seat. The pump's discharge outlet, if fitted with enough tubing, comfortably reaches the filler cap on the outboard. Lefties will be pleased to know that fuel moves through the pump with equal efficiency in either direction whether it's cranked clockwise or counterclockwise. That's why the inlet and outlet nozzles are not labeled on the pump: their function depends on direction of rotation.

If the pump ever loses its prime or fails altogether, we could always use the outboard hose-priming bulb as a backup. Filling completed, the discharge end of the tubing is folded over and clamped tightly with a spring-type wooden clothespin. No balancing act; no socks, bruising, spilling, or drowning. All good.

In the absence of an alternator, we added a 50-watt solar panel to the two flexible panels atop the companionway hatch. Our power requirements are modest. Sailing in calm conditions or at anchor in our typically bright sunlight, the combined array easily produces 3.75 amps and at times even better by a millifrickle.

Flickas are beamy for their length and pretty heavy. Sara-

fina is 8 feet by 20 feet 2 inches, with a draft of 39 inches and displacement of approximately 6,500 pounds fully provisioned with two aboard. Her waterline length is 18 feet 2 inches, making the theoretical hull speed about 5.7 knots.

The new kicker will push *Sarafina* to 3.5 knots in smooth water, while 2.5 knots gives the best fuel economy. It will run at 2.5 knots for two hours with each filling of 1 quart. This, multiplied by the 48 quarts in the main tank, predicts a range of 240 nautical miles ... on paper in perfect conditions.

The motor has a centrifugal clutch and swivels a full 360 degrees for great maneuverability. Setting the anchor does require building momentum since the engine doesn't have enough oomph to drag lots of chain rode. Head seas can also make for slow going.

Better than no engine at all

Some will say, "Well, I guess it's better than no engine at all." Which reminds me ... Larry (Pardey), I tried the sculling-oar bit. It was a disaster. Certainly, in trading horsepower for reduced weight we have limited our options. However, we still have motive force in moderate amounts from an engine we can both handle with ease.

It's just the ticket for cheating around a headland, making a little breeze when the seas are glassy, and for chugging in and out of harbor. Doesn't part of good seamanship involve anticipating and avoiding situations you can't power out of? At least we can hope that, through this whole experience, we will become better sailors.



Catalina Hunter O'Day MacGregor

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A smart flashlight

IQ Lights has invented a smart and clever new flashlight, the SP-3. In a world teeming with new LED flashlights, this one is both unique and functional. Its list of features is long: it floats; has both a dimmable white LED light and a night vision red LED; has a strobe function that is wateractivated; turns itself off after 10 minutes, except in strobe mode, but can be re-programmed to stay on indefinitely; runs for more than 72 hours at full bright on one set of batteries; comes with a free battery replacement offer and a three-year warranty; has a breakaway lanyard; can be found

in a totally dark room/boat; has an easy-to-learn two-switch control system; and so on. Can you tell that we like this light?

This little gem retails for \$17.95. Contact IQ Lights to order: http://www.iqlights.com.

Also available in other locations such as Fawcett Boat Supplies: 800-456-9151, <http://www. fawcettboat.

com>, supplies@fawcettboat.com; and Sailorman: 800-523-0772, <http://www.sailorman.com>, shop@sailorman.com.

Impossible problem? Perfect solution!

Rescue Tape is one of those products that has many uses but might just sit in your "extra parts bin" until just the right moment when it becomes the perfect solution for a seemingly impossible problem. It is a self-bonding silicone tape that can withstand extreme pressure (7,000 psi) and heat (500° F) and insulates to 8,000 volts. It is resistant to fuels, oils, acids, solvents, salt water, and UV rays. It can be used to fix a broken hose or to repair a great many other items almost anywhere on a boat, as well as on any other vehicle you own. It forms a perfect, airtight, waterproof bond with itself when you stretch it during application; there is no adhe-

sive. To remove it, you must cut it off. It comes in a selection of colors including clear, so you can color code your work. A

two-roll pack of 1-inch x12-foot tape is \$24.99.

Rescue Tape is wound on rolls with a protective clear material between layers of tape so that the tape will not bond to itself while waiting to be used.

Want to try this magic tape? Contact Rescue Tape: 877-847-2628, <http://www.rescuetape.com>, sales@rescuetape.com.

Better boat pads

Take a moment to consider those square pieces of wood — covered with a bit of carpet — which are used on jack stands and boat trailers. The problem is that the carpet holds moisture against the hull, but the wood can scratch the finish if there's no carpet. And eventually the wood rots. G&F Industries has come out with an extremely durable chemical- and UV-resistant alternative called the Atlas Boat Pad.

These pads won't decay. The 12-inch square pads (larger than most pads) also help spread the load better. The Regatta model (royal blue, retails for \$28.95 each) is a somewhat softer material designed for dry-sailed boats and



those racing craft with bottoms of unprotected gelcoat or epoxy. The Cruiser model (black, retails for \$21.95 each) is for use with all other applications (most good old boats). Sturdy stainless-steel mounting hardware is included.

Atlas Boat Pads can be ordered from G&F Industries, 508-347-9132, <http://www.atlasboat pad.us>, johnja@gandf.us.

To be featured on this page, items must be new products. If you would like to have your product featured here, please send an email message to Michael Facius, michael@goodoldboat.com, or call him at 612-605-8319. By the way, readers, if you contact a marine supplier mentioned here or elsewhere in our magazine, please remember to tell the folks there that *Good Old Boat* sent you.

Mail buoy

Another foresheet solution

I appreciated Geoffrey Toye's article on foresheet attachments (May 2006), particularly as a few years ago I had to find a way to get rid of a

convenient snap shackle that was doing serious damage to my varnished wooden mast.

While it doesn't meet all of the thoughtful criteria raised in the article, my solution (shown above) featuring a loop with figure-eight stoppers at each end has never snagged, been difficult to release, or flogged out (using standard polyester yacht braid — Sta-Set may not draw up tightly enough). It properly loads the cringle and concentrates what little weight it has within the area of the clew, even padding the cringle.

The only drawback I am aware of is that there is a loose piece. This could be solved by attaching the tail with a fixed eye rather than with a knot on one end or adding more knots, but I have not (yet) found this necessary and enjoy the simplicity and symmetry of the whole.

Wilfrid Worland Qualicum Beach, British Columbia

Real sailors don't splice

On Page 19 of the May 2006 issue, Geoffrey Toye shows a neat way to fasten the sheet to the clew. I like it, but there is another way that most sailors who cannot splice would prefer.

Take a short length of line, pass it through the clew, and then do a double

sheet bend through the bight of the doubled sheet. It's the same as Geoffrey's preferred method, but it avoids the eyesplice and seizing. At any time and in any weather, should one discover that the length of line passing through the clew has worn or chafed enough to be unsafe, all one need do is find another length of line and duplicate the fastening.

I don't know any sailors who splice.

Keith Walters Copper Harbor, Mich.

Kerosene conversion burners

I just read the letter from Dwight Ballestrasse about galley stoves in the May 2006 issue. Interesting to hear that he still has kerosene conversion burners available. We made that conversion on the two-burner Kenyon stove on our last boat. The burners worked fine, but we didn't notice any remarkable difference from the original alcohol burners.

One thing that we did learn, though, was to keep some alcohol in a small squeeze bottle for priming the stove. We needed this to prime (preheat) the kerosene burners. We still use it on *Majaca* to preheat the Kenyon alcohol burners. It is much more flexible than relying on cracking the burners to bleed a little alcohol into the cup. It is especially useful if you forget to light the burner immediately when the preheating is done. If you try to bleed more fuel using the burner control, it usually just vaporizes and you have to wait until everything cools down again. Or you get too much and risk a flareup. With the squeeze bottle, you just squirt a bit more alcohol into the cup and reheat the burner. No problem. The squeeze bottle gives us much better control over how much alcohol we put in the preheat cup.

Doug Bauer South Portland, Maine

Credit where credit is due

Like British reader, Andy Walker, I enjoyed the article on Freedom 25s. My wife and I owned and lived aboard a Freedom 39 ketch for some years. Andy described his impressions of his small jib with "internal, curved, rotating boom in a sleeve." I believe he is referring to a Camberspar, a device pioneered by David Bierig, not Garry Hoyt. Interestingly, I have seen Garry Hoyt credited with many aspects of the Freedom line that he did not actually design. The sailing community owes Garry a debt of gratitude for his innovative thinking but should recognize the contributions of some notable talent, like Jay Paris and Eric Sponberg, who helped make Freedoms the great boats that they are.

> Dave Benjamin Island Planet Sails West Linn, Ore.

A new website of interest

We recently learned of a new website that has gathered a lot of the information sailors are looking for: <http://www. compuboat.com>. What's there? A huge mariners' dictionary, yachting flags, boating laws and information organized by state, right-of-way rules, signals and buoys, and docking and anchoring diagrams. Also free classified ads, a listing of boating events (get your rendezvous listed here), a list of boat manufacturers and insurance organizations with links to their sites... a very impressive operation. One thing more. Founder Fred Henley tells us, "The thing we're the most proud of is that we mapped every lake and waterway in

America and provide information on those lakes and waterways such as where the boating businesses are, the weather, water levels, water hazards, ocean conditions, and the boating laws for each state." Still to come: buoy tracking and a marine hazards update. Five people work full-time on this site, which has, we are told, 5.2 million pages. It went live in February and is already getting 200,000 hits a day. Editors

Ports discussion continues

Having read the surface-mounted ports article in the March 2006 issue, I've been trying to find some of the rubber adhesive sheets you used between the fiberglass and the acrylic windows. If you had an exact name for a lead on the stuff, it would be greatly appreciated.

Joseph Krivan Fort Pierce, Fla.

Author Steve Stoehr replies

The rubber gasketing material I used was plain ½-inch closed-cell foam neoprene rubber sheet stock. It was not adhesive sheet stock. Go to your nearest industrial rubber distributor (there is at least one in every city) and tell the man at the counter what you need. If you must substitute another material, choose one that is UV- and chemical-resistant. Closed-cell means that water can not migrate through it like it can through a sponge.

Steve Stoehr Westerville, Ohio

Ports: what color acrylic?

I read the article about surface-mounted ports by Steve Stoehr and I'm wondering what material was used to make the ports? The article says ³/₄-inch acrylic stock. Can you be more specific about the color and the series or any specific information? I am trying to do the same with my Catalina and have already wasted \$200 on plastic that is the wrong color. I would really like to get it right this time. I have to order the material from 60 miles away and I just can't drive there twice, once to look at samples and then again to pick the material up. I can't believe that it is this difficult to figure out what material to use. Any help you can give me would be greatly appreciated.

> Dan Happ Bridgeman, Mich.

Back to Steve again

Just about any town of any size has at least one plastics distributor. Check the *Yellow Pages* under "plastics." They usually have clear acrylic sheet (Plexiglas) in stock but may need to order tinted acrylic for you. If so, they should have samples to look at to determine what tint you want.

I bought Acrylite GP acrylic made by Cyro Industries. My choices were clear, smoked, and reflective coated. The smoked tint is optically clear for good visibility yet helps

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Visit our secure website: www.marinemailorder.com Or call for catalog: 707-745-4372 Toll free: 888-228-6758 • Fax: 707-745-1756 filter out bright sunshine and offers some privacy below. The shiny reflective coated version is even better for blocking sunshine, but it looks tacky to me.

Check also for plastic fabricators in your area. They buy from the distributors and make custom things out of plastic, such as display shelves and cases. With any luck, you may find one with enough material left over from a job to make your portlights.

Here are a few more tips. Do not use polycarbonate (Lexan) for your portlights. While Lexan may stop a bullet, it scratches easily and turns hazy in sunshine over time. If you plan to use silicone to seal the portlights, use a silicone that does not smell like vinegar (acetic acid) when it cures. That kind will craze the acrylic over time.

Steve Stoehr Westerville, Ohio

Our bimonthly newsletter for Good Old Boat subscribers has also been dealing with questions and answers about surface-mounted ports. If you're not a subscriber, you should be. If you are a subscriber and don't get your newsletter, please let us know: karla@goodoldboat.com, 763-420-8923.

Knot again!

Referring to the May 2006 issue in which Geoffrey Toye describes the admiralty hitch, this hitch is certainly traditional, but I think there is a better way (that's the Yankee in





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www.helmproducts.com 630-543-1651 info@helmproducts.com me talking!). My mainsheet has been hanging over the stern pulpit (aft rail) for many years while the boat is moored in the open roadstead where winds of 50 miles per hour have been recorded and a 6-foot chop is not uncommon. Never has my mainsheet come undone from its position on the stern pulpit.

I have never found a name for it, but my storage is done by taking the coil in my left hand and, with a rather long tail, taking one to three wraps around the coil, leaving about 16 inches of tail. Now form a loop in the tail and push it through the coil at the upper end. Then holding it outside the rail, take the bitter end with a figure-eight knot in the end and put it over the rail and through the loop just formed. The figure-eight knot keeps it from coming loose. Undoing it for use is quick and easy, even if the line is frozen.

I will not argue with Geoffrey's method of coiling a line because that may work OK with three-stranded laid rope; however, with modern braided rope, Samson Ropes recommends allowing the figure eight to form. The theory is that it is less likely to kink when it is expected to run freely and quickly through a block, as in the case of releasing a spinnaker guy. Here is the quote from Samson's pamphlet: "Coiling any rope (braided, plaited, or three-strand) for storage puts turns in it that can result in kinking. To help avoid kinking, form the line into a figure eight for storage or flake it down on a deck. It will then run free."

I think, with all due respect, that Geoffrey has mistakenly applied the term "standing part" to what is more correctly called the "end" or "tail" of a rope. According to *The Ashley Book of Knots* on page 604 (Think about that for a moment: 604 pages in an oversized book about knots? All 3,854 of them!), he describes the "standing part" (of a rope) as: "the inactive part as opposed to the end and bight." To me that means the part between the coil and the cleat, stopper, belaying pin, or whatever.

> Jim Hildinger South Lake Tahoe, Calif.

Hats off to Morningstar Corporation

I contacted the Morningstar Corporation of Washington Crossing, Pennsylvania, regarding its ProStar 15 solar panel controller on March 27 and within several hours received trouble-shooting advice. The trouble-shooting did not cure the problem, so the following day I received word that the company was sending a new unit. In less than a week, I had a new unit, which solved the problem.

The engineering service contact, Bill Mellema, was most responsive and helpful. Working with these folks was a real pleasure and there was absolutely no hassle! I was impressed by their excellent service and quick response. It's good to come across companies that are so responsive.

Tom Assenmacher Kinsale, Va.

Rescue by Roscoe

I have the Pearson 35 website: http://www.pearson35. com>. We are now up to more than 196 members. Very active. I have been posting upgrade activities from a guy on the West Coast of Florida for the last two years. He has gone well beyond the normal upkeep and upgrades. His name is Roscoe. I just want to provide some recognition for him for all the hard work he has done. Have a look at http://www.pearson35.com/projects/projects_by_roscoel.htm.

Thanks for a wonderful magazine and your personal views of sailing and working on those good ol' boats. Keep going.

> Harris Hickman Indiatlantic, Fla.

Biodiesel interest continues

I'm responding to a Mail Buoy letter from the March 2006 issue. Durkee Richards wrote about whether biodiesel blends work well in Espar furnaces. Our boat is in Seattle, not too far from Durkee's area. I've been using B20 for four years in an Espar Hydronic D10W heater. This heater uses a spray-injection system and includes a glow pin for starting, as opposed to a glow plug. The glow pin is a heating element encased in a ceramic pin, so there are no fine wires to foul with carbon.

I can't say for sure how much carbon has built up in the combustion chamber in my heater, because in 300 hours of furnace running with the blended fuel, I've not had so much as a hiccup or failure to start. Someday I'll probably pull the glow pin out and have a look inside, but so far it has run beautifully with no smoke or soot and less smell than with regular diesel fuel. The biodiesel blends seem to work great.

On a similar note I'm running the B20 in the main engine, a Caterpillar 3034NA (same as Perkins M65). Happy engine!

Ben Hempstead Edmonds, Wash.





What is that lovely boat?

Steve Koulogianes wrote to ask what that lovely boat was in the center spread of the January 2006 issue. Photographer Jeff Scher responds:

The boat pictured is the schooner, Olad. She is 57 feet LOA and was built and launched in 1927 by the Crosby Yacht Yard of Osterville, Massachusetts. Over the past 15 years, the boat has been completely restored to her original beauty. The Olad is a working schooner and part of the Camden Schooner Fleet. The harbor that she is about to dock in is Camden Harbor in beautiful Camden, Maine. The photograph was taken in late July of last year on a foggy morning that later cleared to reveal a beautiful day. The boat had just come in from the outer harbor where she is moored and was being brought into her position on the

dock. My wife and I own a camp not too far from Camden. On that day some relatives came to visit. We were all hoping to go for a sail. The fog kept us from leaving early in the day; knowing it would burn off, we rescheduled for later in the afternoon. With plenty of time to kill and the fog providing a wonderful backdrop, I took my camera out and got busy. That image was just one of many I captured that morning. For me, it evokes a sense of what it was actually like standing there on the dock that morning.

The *Olad* has seen a handful of owners over the years and is currently owned and operated by Aaron Lincoln of Camden. To prove what a small world we live in, when I stepped aboard the *Olad* for our sail, a familiar voice rang out from behind a rather large beard. It turns out I used to work with Aaron while he was a graphic designer in Camden years before. It is nice to be among old friends (or new) when sailing. My experience sailing aboard the *Olad* in Penobscot Bay was one I will not soon forget.

You can find more info about the *Olad* at <http://www. maineschooners.com>, 207-236-2323.

Jeff Scher Boston, Mass.



Dr. Shrink, 315 Washington St., Manistee, MI 49660 Phone: 800-968-5147 • Fax: 231-723-9586 drshrink@dr-shrink.com; www.dr-shrink.com.



Check out this blog

A friend of mine has been restoring a Westerly Nomad 22 for four months now and has made amazing progress on a very tight budget. He bought the boat for around \$3,000. While the hull was basically sound and all the parts were there, cosmetically she was in bad shape. So far he has spent less than \$2,000 and has around 500 manhours of mostly nights and weekends on the restoration. With 6-foot headroom, she is the biggest 22-footer I have ever seen.

Everyone who sees the before and after photos can't believe she is the same boat. Chris is planning on relaunching her in late August. His feeling is that if he launches her sooner, the work will stop and he will just go sailing. So he wants to finish the interior first. The blog

where he tracks his weekly progress is http://www.westerlynomad.blogspot.com>.

Richard Lutz St. Petersburg, Fla.

This is a good blog site for do-it-yourselfers. You'll soon feel as if you know blogger Chris Garrett, and you may identify with the project he's taken on. While you're at it, meet Richard Lutz in his own blog at: <http://www. ratracefree.blogspot.com/>.

Another do-it-yourself blog

I'm currently restoring a 1979 Victoria 18. I'm publishing an online blog of my progress. Feel free to monitor the project over the next few months http://www.victoria18restoration.blogspot.com/>.

Caleb Krisher Appleton, Wis.

"How **do** these do-it-yourselfers find time to write and maintain a blog site along with all the work they're doing on their boats?" we wonder. Caleb removed the entire deck from his boat. Yipes! Have a look at his site and watch his Victoria 18 come back from the brink.



Bloggers go cruising too

As a subscriber, I wondered if you would mind if I put a link to the *Good Old Boat* site on the blog for our upcoming trip next week? The blog is here: http://www.megabluewave.com/blog>.

Any advice or suggestions, in addition to "dress warm," are welcome! Thanks for (with the magazine) helping us survive another winter!

Scott Fuller Wauwatosa, Wis.

Scott and friends pushed the season a bit on the delivery of his O'Day 34 from Detroit to Milwaukee beginning in late April and successfully completing the trip on May 5. In a follow-up message, he said, "We do realize it's early in the season — but let's face it — our season is short enough as it is, and I don't think I can stand another month of having my boat 400 miles away! We are well-prepared for the conditions, but Priority One is a safe trip, and if that means we need to lay over for a few days or even leave the boat in a marina and rent a car to take us home until conditions are appropriate, we'll do what's necessary."

Little Sweet 16...

I have enjoyed your magazine for two years now. We acquired a '75 Catalina 22 that we have lovingly restored. That's where your magazine comes into play. We used many of the ideas we read about and put them into action. I have told all my friends that they need your magazine as well. Being new to sailing, I find each article holds something new for me to learn.

A second interest of mine is the National Sweet 16 Sailing Association. If you are not familiar with it, the Sweet 16 was produced in the mid-1960s by Advance (along with Flying Dutchman, FJ, US 1, Windmill, and Demon). The Sweet 16 has not died, and I would like to get the word out. Cur-



rently, we have three active fleets that are eager to grow. After reading the article on the San Francisco Pelican, I thought perhaps you would like to do an article on the Sweet 16. I welcome you to visit our site at http://www.sl6.org.

Susan Kellner Independence, Mo.

Send questions and comments to *Good Old Boat*, 7340 Niagara Lane North, Maple Grove, MN 55311-2655, or by email to jerry@goodold boat.com.



Audiobooks for the rest of us!

Allow us to introduce an old friend made new:

Sailing Alone Around the World, by Joshua Slocum, narrated by Jerry Stearns. The book that started it all is now available (produced by Good Old Boat) as a downloadable audiobook and as an MP3 audio CD. Both ver-



sions include comments by Ted Brewer about the *Spray* and more than 60 illustrations from the book's first printing.

Next we've recorded a trio from John Vigor.



Call it "The Vigor Trilogy." Narrated by Theresa Meis, it begins with John's wildly popular *Danger, Dolphins, and Ginger Beer,* which was published around the globe. It is now available for the first time as an audiobook.

A "youth adventure novel" with a sailing theme for 8- to 12-year-olds, this book is as big a hit with parents and grandparents. (You don't even need to have a kid along in order to enjoy it.) The download includes an introduction by the author, a ginger beer recipe, and a map of the sailing area described in the story.

Two more audiobooks will follow; neither has been published in book form. The first, called *Sally Steals an Elephant*, involves the same family introduced in *Danger*, *Dolphins, and Ginger Beer*. The second, called *So Long, Foxtrot Charlie*, introduces a new set of characters.

What else is in the works?

We're producing several more (an eclectic mix actually): Jaja Martin is narrating *Into the Light: A Family's Epic Journey*, written by Dave and Jaja Martin about their travels to Iceland and Norway above the Arctic Circle. Gregory Newell Smith is narrating his



own excellent tale about his circumnavigation, *The Solitude of the Open Sea*. And we have a few more surprises in store.

Check out our audio offerings online: www.goodoldboat.com/audio.html

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Last tack



by Jerry Powlas

The first time I saw a Mega 30 was at a boat show. She was a new idea, a new design, and newly built...all untried and unproven. I wanted one.

I never stopped wanting one. Twelve other boats came into my life. Four of them stayed. *Mystic*, our C&C 30 stayed, and eventually I came to think of her as one of the best boats we could possibly own, perfectly suited to what we do with her. And yet... I wanted a Mega.

There was one in the back of a boatyard in Wisconsin that I looked at almost every time I drove past her. She was a sorry little kitten who seemed to have been abandoned. I'll never know how much was wrong with that boat. One day she was gone.

It is a dangerous thing when your spouse buys off on one of your ideas. So it was that I found a Mega in Michigan and bought her, thinking I'd do a little bit of work to begin with. Then gradually, as we sailed her, I'd get her up to snuff.

As she had been a race boat, I could see that she had been ridden hard and put away wet. I could hear the dull thud of wet core. There were lots of rusty fasteners that were not stainless. Still, even with a survey, I did not begin to see it all. She needed work before she'd sail. Lots of work.

I've been working on her for several years and have reached the point where at least some of the work is reassembly. The piles of parts in the garage, basement, attic, living room, and dining room are slowly going back into the boat. There is hope.

Maybe a quarter-century of wanting a Mega blinded me

too much. Maybe. In any case, here is some advice from a guy who knows he did not do this right:

- You should choose a boat that is as close to being what you want in terms of characteristics and condition as possible. The Mega we bought was a rundown, lightweight club racer, no longer raced but used for an annual vacation. We wanted a lightweight, trailerable cruiser with good performance and more interior space than most trailerables have. Making the one into the other has taken more time than I thought.
- You will need a place to work. The nice neighborhood zoning lady chased me out of my yard when the realtor selling the house across the street complained. The boat is back

So it was that I found a Mega in Michigan and bought her, thinking I'd do a little bit of work to begin with.

in our yard, and we are still fearing the nice zoning lady. Here under a tree, all manner of flora and fauna fall on her decks and cockpit, preventing any jobs like exterior painting. Below 45 degrees, epoxy won't cure. When it's above 50 degrees, the mosquitoes and other bugs come for blood.

• You will need the time. I have a business and another sailboat. I have an adventuresome wife. She wants to cruise ... now while we are still young enough to care. You will need other things like money and tools and new skills and such, but the most important thing is the time. You only have just so much time. Everything that must be fixed takes time, and everything you want to change takes time. You don't ever know how much time the task will take, and you never know how much time you have left. Time is the most important thing.

Still, I think we have turned the corner, the Mega and I. I don't know which year she will sail yet, but there has been progress and sometimes I can see the endpoint. I know I'm not good at planning this sort of thing, but I don't give up easily either.

The first time I saw a Mega . . . I wanted one. 📐



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The Petrel is a fiberglass version of the Herreshoff Fish Class and a reminder of the fun Matthew had on a Jet 14 long ago.

effections

WAS FORTUNATE TO ATTEND TABOR ACADEMY, "THE SCHOOL by the Sea," for those four tumultuous years preceding college. Rather than bore you with chemistry class and hormones, I'll tell you about the sailing fleet at the school. In addition to a 90-foot schooner, there may have been 40 boats of diminutive size. There were Cottontails and Puffins and Silver Terns; there were Mercurys and WoodPussies.

And then there were three new Jet 14s: planing boats that scarcely kissed the water during their flight. They were built of wooden battens laid on a bias. They were light and sleek

and strong and extremely swift. The cockpit was very narrow. There was no coaming on either side, just a hand-span width of decking to sit on. This decking was invaluable when you heeled; your whole lee rail could be submerged without a cupful coming into the boat. The centerboard trunk ran most of the length of

the cockpit and housed a formidable steel plate. The genoa was a sweeper with a window in it. On a broad reach you could keep up with an airplane. Thankfully, there were hefty hiking straps and an ample hinged extension to the tiller.

On the day I remember best it was rather rough. The breeze was stiff and the launch driver — one of the masters — cautioned us as he dropped us off at our moorings. I was crewing for Mike. He was a senior and on the sailing team; I was glad to be teamed with someone as knowledgeable as he was. Off we went and immediately got her up on plane. We skimmed the whitecaps out to the point, where the small-craft-warning flag was crackling at the yacht club. But no one ever paid attention to that...it was scarcely ever hauled down the entire season.

Today it had valid reason to be aloft. Outside the harbor, in Buzzards Bay, the breakers were piling up. We wisely made the decision to stay inside. Even here, we had a basin about a mile across and more than plenty of weather to learn our limits.

Capsized

a glorious day for planing

by Matthew Goodman

Sure enough, we looked astern and saw that one of the other 14s had gone over. The launch came charging out from the pier to help. The wind picked up; our sails were wet with spindrift. The foot of our low-cut genoa was dragging in the water; spray was running down inside our shirts. Towing the swamped boat, the launch crossed ahead of us. The two boys huddled, shivering, in her cockpit. "Sailing has been canceled this afternoon!" the master bellowed.

Thrills and spills on

We pretended not to hear him. "What's that, Sir?" we hol-

The wind was screaming, our rail was down. It was 6 inches under water, but we were dry. Life was glorious. lered politely and, porpoiselike, leapt the next wave and sped away. The master picked up his megaphone, but the wind was against him — we couldn't hear a word. Our three boats were the only ones out when orders were given to cancel small-craft activity. "Head for the outer harbor," I suggested. f an hour before the lounch

There we might revel for half an hour before the launch could complete her work and return to harass us. The wind was nearing 20 knots. I played the genoa carefully as we teetered on our beam ends. Hiked far out, I could see a few inches of centerboard clear of the water.

When we came about, we could see that the second Jet 14 was in trouble. In a moment she was over. The two boys stood on the centerboard and righted her, only to have her continually knocked down. The launch came pounding through the swells to her rescue. The wind was screaming, our rail was down. It was 6 inches under water, but we were dry. Life was glorious. There went my favorite hat! We flew to the mouth of the harbor and circled the schooner, as she lifted and plunged massively at her mooring. Here came the launch at her uttermost 14 knots, the master gesticulating. But now we were on a broad reach, and he wasn't quite able to catch us. Our rooster tail diffused the rays of the avid sun, and we fled in regal splendor.



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