Good Old Boat

The sailing magazine for the rest of us!

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Our contributors

John Vigor (*Nicholson 31: No compromises in this powerful cruiser*, Page 4) has sailed for more than 40 years and logged some 15,000 miles of ocean voyaging. In 1987 he and his wife, June, and their 17-year-old-son sailed their 31-foot sloop from South Africa to the U.S. This is the last in a series of boat reviews based on articles from John's book: *Twenty Small Sailboats to Take You Anywhere*, which is available from The Good Old Bookshelf.

Dan Spurr (*The Nonsuch 30 man: Mark Ellis*, Page 9) was editor of *Practical Sailor* for 11 years. He and his family live in Montana where he continues to write books and articles for marine publications. He has written a score of boating books: *Heart of Glass*, *Spurr's Boatbook: Upgrading the Cruising Sailboat*, *River of Forgotten Days*, *Yacht Style*, and *Steered by the Falling Stars* (the last one is now out of print).

Norman Ralph (*The wheel deal*, Page 13) and his wife, Jeanette, were late bloomers when it came to sailing. After buying a Compac 16 in 1986, they sailed a series of Midwest lakes and reservoirs in a variety of boats. A 1988 trip to the Gulf Coast exposed them to year-round sailing and sowed seeds that initiated early retirement and a move to Lake Pontchartrain in Louisiana.

Phillip Reid (*Changing your steering*, Page 17) and his wife, Andie, and their Bernese mountain dogs, Tugboat and Steamboat, live in Wilmington, North Carolina, where Phillip writes, teaches college history, sails, dives, and works on his boat, a Pearson 28 named *Miss Bohicket*. Phillip learned to sail on Lake Lanier near Atlanta.

Don Launer (*Drifting into old age*, Page 18; *Watch your winches*, Page 22; *The gentle art of rowing*, Page 49) is a *Good Old Boat* contributing editor. He and his wife, Elsie, are retired. They sail a Lazy Jack 32 schooner in Barnegat Bay and along the New Jersey coast. Don rows his Bauer 10 dinghy about two miles nearly every day that the weather is decent. "My knees have too many miles on them," he says, "so I much prefer rowing to walking as a form of exercise."

Guy Stevens (*Second thoughts*, Page 24) and his wife, Melissa, cruised the South Pacific aboard *Pneuma*, their good old 1973 Ericson 39. They are currently back home in Ohio and shopping for another boat.

Ted Brewer (*Searching for quality*, Page 28; *Montgomery 23*, Page 57) is one of North America's best-known yacht designers, having worked on the America's Cup boats *American Eagle* and *Weatherly*, as well as boats that won the Olympics, the Gold Cup, and dozens of celebrated ocean races. He also is the man who designed scores of good old boats . . . the ones still sailing after all these years.

Maureen Bennie (*A dream come true*, Page 33) is a freelance writer and owner of the website Autism Today <http://www.autismtoday.com>. She began sailing at the age of 12. She is married to Ron Bennie, a professional pianist. They reside in Calgary, Alberta, with their two children. *Time Off*, a Catalina 22, is the first boat they have owned together.

Bill Burr (*Cleaning science*, Page 37), a lifelong boater, retired after 40 years in the chemical industry. He then spent a year selling coatings and compounds in a marine store as part of his research for his book, *Boat Maintenance: the Essential Guide to Cleaning, Painting, and Cosmetics.*

Gregg Nestor (*Rob Roy 23*, Page 40; *Simple solutions: Anchor rode bag*, Page 61) is a *Good Old Boat* contributing editor. He and his wife, Joyce, sail their O'Day 222, *Splash*, on Pymatuning Reservoir on the border of Ohio and Pennsylvania.

Pat O'Driscoll (*Centerspread: Soft seascapes*, Page 44) and her husband, Ken, sailed the Niagara 35, featured in *Good Old Boat* in November 1998. She expresses herself through many media, including watercolors, interpreting florals, figures, and still lifes as well as land- and seascapes. Her images are derived from travels abroad as well as the Lake Huron sailing scenes of the Bruce Peninsula, Georgian Bay, and the North Channel featured in this issue.

Martha Leonard (*Chrysler S-27 reborn*, Page 46) is a retired mental health counselor who has always loved the water. She and her husband, Arnie, live in north central Florida with their cat, Sam. Marty enjoys traveling to see their seven grandchildren. Arnie is a retired residential contractor with 15 years of service with the Army Corps of Engineers. He always dreamed of building a boat but instead found a classic he could rebuild as a project.

Beverly Amaral (*Simple solutions: Creating that bronze look*, Page 62) sails out of Morro Bay, California, with her husband, Paul, on their 1965 Alberg/Ericson 35, *Hail Mary*. When not working on their good old boat, she likes to write about it.

Glyn Judson (*Quick and easy: Outboard motor hoist*, Page 65) is a retired aerospace photographer who has owned his 1979 Ericson Independence 31, the *Dawn Treader*, for five years. Since purchasing his first sailboat in the early 1980s, he has created a number of innovative systems to make his boats as user-friendly, efficient, safe, and "shippy" as possible.

Alfred Poor (*Reflections: The great divide*, Page 89) grew up sailing on the Chesapeake Bay on his father's boats but only became a partner in his own good old boat, a 1969 Cal 29, five years ago. His article was written last May right after a winter of major renovations and (fortunately) right before the first sail of the season, when a turnbuckle failed and the boat was dismasted, making it a short season once more. Repairs were completed just in time for participation in the Good Old Boat Regatta in Annapolis last October. Alfred and his partners hope to get in a full season of sailing *this year*. We're crossing our fingers for them. They want so badly to cross the great divide . . . and stay there.

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About the cover . . .

Tom and Barbara Theisen's 41-foot Gulfstar sloop, *Out of Bounds*, anchored at Lime Cay in Belize. At last contact, the family of four was en route to Guatemala's Rio Dulce.

Birth announcement

How one little thing led to another . . .

A BIRTH ANNOUNCEMENT INFORMS others of an addition to the family. The happy individuals doing the announcing (particularly if this is their first) have no idea how much time, energy, and money this new bundle of joy is going to require. They seldom know — and no one can tell them — that it will change their lives.

But Jerry and I should know. This is our second boat, so we ought to be able to anticipate its demands for time, energy, and money. We ought to know that it will change our lives. These things begin, of course, long before the birth announcement. Jerry started it when he began making quiet little noises about sailing in the winter, about having a trailerable boat we could take anywhere (especially somewhere warm), and about standing headroom in the C&C Mega 30. I should have foreseen it when he often pulled over "just to look" at a forlorn Mega located conspicuously on our drive home from the cruising grounds where we have so much fun with our first boat.

That forlorn Mega disappeared one day. Soon afterward, Jerry ran a classified ad in *Good Old Boat* looking for a Mega 30. Just curious, you understand. After all, there aren't many of them out there. He located quite a few. Not long after that, we agreed that we should at least buy a truck so that if we ever *did* find the right boat, we'd have a way to bring it home. And for Christmas I received the dinghy that would go with a trailerable boat, *if* we ever bought it, of course.

The dinghy is a Folbot two-seater kayak, a folding boat that can be disassembled and packed away in a couple of large duffel bags. We enjoy our kayak dinghy with our first boat so very much. Now we had a dinghy that would improve the quality of our time in our trailerable. *If* we ever found that boat, of course.

Maybe we *could*

One day in January I mentioned casually that perhaps we *could* afford to buy that boat and perhaps we *could* find the time off in the winter to sail it. A few days later Jerry had located a boat we "might consider." Since we were driving to Chicago at the end of the month for the Strictly Sail show, it wasn't that much farther to Michigan really, where Torresen Marine had a Mega 30 listed.

Jerry was a beehive of feverish activity as the boat show neared. He had a survey done, got insurance, put money in an escrow account with Torresen, made an offer, and assured himself that our truck would accommodate the boat's trailer hitch, just *in case* we wanted to tow it home. (This last effort required hours in the bitter cold rewiring and preparing the truck — labor pains? You bet!)

All this flurry for a boat we had not yet seen and would not be able to test sail. We were already heavily invested in the concept, and indeed we brought our new baby home from Michigan with us in early February. The delivery was risky, naturally, since we had to battle a Michigan snowstorm, but finally we backed our new boat into a snowdrift in the side yard and began the work of making it ours inside and out.

Along with the work and expense, new members of the family bring rewards, too. We're busy choosing a name for our new baby. And we're making plans for winter vacations in coastal and freshwater locations in the southern states. Maybe we'll let our first boat stay in her cradle one summer while we explore sailing areas in our northern states and Canada. The possibilities are suddenly endless and inspiring.

Our new baby is 30 feet long and weighs 4,500 pounds. Sure, this new addition to our family is going to be time-consuming and expensive, but we're proud she's joining the family.

Karen Larson

Nicholson 31: No compromises *in this* powerful cruiser

by John Vigor

The Nicholson 31 is a deceptive boat. Above the waterline she has the lines of a sleek modern racer/cruiser. Her cabintop is low and streamlined, with elongated Eurostyle portlights and aluminum-framed hatches. Her bow protrudes forward enough to give her an appearance of constant movement. Her no-nonsense stern is clipped off short and businesslike, and her tall masthead sloop rig looks powerful and efficient.

But below the boot stripe it's another story altogether. She lies deep in the water, and her full-length keel is cut away in the forefoot in the modern fashion. Her long rudder hangs outboard from the transom and the keel, and her tiller pokes through an elongated slot in the aft cockpit coaming. You begin to realize that this is no club racer/weekend cruiser after all. There are no compromises here. This is all pure cruiser/cruiser. And not a bowsprit, a bumpkin, or a bit of baggywrinkle is in sight.

She is the replacement for another dedicated cruiser, the Nicholson 32, which went out of production in the late 1970s. The 32 was a landmark boat for the British boatbuilding industry because she had ushered the venerable boatbuilding firm of Camper & Nicholsons into the era of the fiberglass production boat in the 1960s. Before that, for two centuries or more, Camper & Nicholsons had produced only one-off wooden boats, usually a lot larger than 32 feet.

At first, the fiberglass hulls of the 32s were fitted out entirely in wood, but in the very latter part of their highly successful production run, which went through 11 "marks," the 32s started receiving plastic liners and molds for the accommodations, trimmed with teak to detract from their sterility. But by the mid-1970s the Nicholson 32 was beginning to look dated with her springy sheerline, low freeboard, long overhangs, and that protruding doghouse in the aft end of the coachroof.

The Nicholson 31, therefore, was born with plastic liners, upgraded construction methods, great new looks, and a drastically modified keel, so she really represented the first of Camper & Nicholsons' "modern" plastic boats.

Her construction befits her design intent. She is strong and efficient without any show of ostentation. The real deceit is that while she looks so clubby and racy in such a non-flashy way, this is actually a boat fit to go anywhere. The Nicholson 31 is a true Cape Horner.

Basic design

The 31 is a heavy-displacement ocean cruiser with a single-spreader, masthead sloop rig. She's quite beamy, although not excessively so by today's standards, and has a healthy draft with her ballast carried down low. Her midship sections show a fairly tight turn to the bilges, which speaks of form stiffness additional to that provided by the beam.

Her ballast is molded lead; a 5,300-pound chunk of it glued into the hull's keel cavity and glassed over on top. It gives her a ballast ratio of 33 percent.

Because of her displacement of nearly 15,000 pounds, her interior is voluminous for a 31-footer, and she is able to offer full standing headroom without having to resort to a high cabintop that could be vulnerable to damage in heavy seas.

You can see from the words "Camper & Nicholson 31" molded into the gelcoat of her stern quarters that this hull is made in two halves and later joined down the middle. The nameplate is situated on a stretch of tumblehome that disguises the boxiness of the topsides and at the same time adds great strength to the hull, but you'd never be able to pop that shape out of a single female mold.

As a matter of interest, Camper & Nicholsons didn't make the hulls of their 31s anyway. That job was contracted out to the specialist firm Halmatic, and C&N finished them off and fitted them out.

The hull is solid fiberglass and is reinforced with the kind of foam-filled longitudinal stringers that are missing, but badly needed, on some other makes of so-called ocean cruisers. The coachroof, the cabin sides, and the decks are fiberglass, cored with balsa.

Jeff Fletcher sails the *Terri G*, a Nicholson 31, at right, with what he says are "the two best features of the boat: boat mascot, Moose, and my wife, Terri" (inset). Jeff and Terri sail near St. Simons, Georgia.

***Pagan Knight*, owned by Roger Luddeni, facing page, races in the Daytona Beach-to-Bermuda Race in 1985, a "shake-down cruise," as he recalls the trip. He and Christine Powell cruise the Florida east coast.**

The sidedecks are wide enough to move about on easily, even when the boat is heeled, and the foredeck is clean and uncluttered, thanks to the enclosed anchor locker, which is capacious enough to hide a 35-pound CQR as well as an anchor winch and a hefty pair of mooring bitts.

If you ever need to be convinced that the Nicholson 31 was designed for rugged cruising, take a look at her stemhead fitting. To call it massive would be an understatement. Apart from anything else, two solid bronze rollers almost the size of golf-cart wheels are encased in a flak-proof jacket of stainless steel that must weigh as much as Jenny Craig's worst failure.

The cockpit is more than 6 feet long and it's deep, so that the seats seem to have unusually high backs and tend to isolate you from the water. Many people will prefer a higher seating position, one that affords a better view forward, but there's no denying that you're well protected in there, especially as the forward part of the cockpit is covered by a full-width dodger that comes as a standard fitting.

The cockpit floor is unusual in that part of it is the top of the 25-gallon diesel fuel tank. The real cockpit sole is a teak grating that keeps you from walking on the tank. It's a self-bailing cockpit, of course, and a really efficient one at that. Two large drains simply exit through the transom above the waterline, so there's never any worry about drain hoses going bad (or their clips rusting away) and flooding the boat. Top-hinged flap valves fixed to the outside of the transom prevent following waves from washing back up into the cockpit.

A single propane bottle finds a home in a special locker that drains into the cockpit, but it would make sense to do some modifications here so you could stow at least two 10-pound bottles for a long cruise.

To port, the cockpit seat lifts up to reveal a cavernous sail locker, which should help keep the V-berth clear for its intended use: a "catchment" area for soiled underwear, orphan socks, and old shackles that have lost their pins.

With a voluminous interior for a 31-footer, the Nicholson 31 offers six full-sized berths, an adequate (but not exceptional) galley, and a very nice navigation table. Interior shots are of the *Terri G.*

The standard engine is a three-cylinder Yanmar diesel of 22.5 horsepower, adequate but not overly muscular for this heavy boat. It pushes her along at more than 5 knots in calm water at about 75 percent of full power, and it will take her up to hull speed of slightly more than 6.5 knots with the throttle wide open, at which stage it will consume about one gallon of fuel an hour. If you're happy to cruise along gently at 4 to 5 knots, as you might in the doldrums, your fuel consumption will shrink to about half a gallon an hour, greatly increasing your range under power and adding substantially, through diminished noise and vibration, to your quality of life. There are 25 gallons of fuel in the tank under the cockpit sole, enough if used wisely to take you 200 miles or more.

Owners replacing the original engine with the newer 27-hp Yanmar report that the extra 5 horsepower makes a difference when it comes to pushing the Nicholson 31 into strong headwinds and choppy seas.

Accommodations

The Nicholson 31 philosophy is so determinedly fixed on long-distance cruising that it seems almost whimsical to supply her with six full-sized berths. Boats of 31 feet with six berths were more likely designed to be weekenders or vacation boats, where people can go ashore or jump into the dinghy and ride around to get out of each other's way. Nobody in his or her right mind would want to cross an ocean being cooped up with five other people in a Nicholson 31. And yet, to the consternation of any sane sailor, the berths are there: two up forward in a double V-berth, two settee berths in the main cabin, a pilot berth above and outside of the port settee berth, and a quarter-berth whose head, peeking out from behind the chart table, accommodates the navigator's rear end while he or she attends to the charts.

This is at least two berths too many, and the two most easily sacrificed would be one V-berth, which would make way for a more sensible work-bench, and the pilot berth, which is mostly a vexing waste of space. The galley could benefit from more storage, and this would be a good place for it, along with a shelf for books and an additional locker or two. In most other respects, this boat is ideal for a cruising pair, even one with a couple of small kids.

There's a huge locker under the V-berth that will hold a year's supply of canned goods for two people.

Aft of the forward cabin is an athwart head compartment, with a vacuum-operated Lavac toilet and a hanging locker to port, and a large wash-basin and vanity to starboard. There's a pressure shower in there, but it's for masochists only. There's no hot water.

The two sliding doors that separate the head/vanity compartment from the forecabin and the main saloon are heavy and tend to stick in their slides — that is, when they haven't broken loose from their magnetic restraints at sea and tried to ram their way out the hull. Not the cleverest of ideas.

Most owners end up leaving them permanently open at sea, sacrificing the modicum of privacy they offered in exchange for the safety of the boat. Others have discarded the sliding doors and, with a little ingenious shaping, have fashioned a hinged marine-ply door that shuts off the toilet only. It will also close off the main saloon and hinge back against the main bulkhead inside the toilet compartment, out of the way.

Between the settee berths in the saloon is a very solid table with a small, fiddled central section that stays permanently in place. It has leaves that hinge up on each side when required. It's a nice piece of furniture.

The galley, as usual, was designed by someone more interested in providing sleeping berths than decent cooking space. It's adequate, but only because most sailors' expectations are unusually low. Considering the importance of a galley, particularly on a liveaboard world cruiser, it's a wonder the layout doesn't get more attention — and not just on the Nicholson. There are two stainless-steel sinks, with fresh and salt water supplied, on a peninsula adjoining the aft end of the starboard settee. Outboard there is stowage for condiments, crockery, and cutlery. There is also a propane-fed two-burner stove and oven in gimbals.

The icebox suffers from the usual north European malaise. In their culture, ice is a sinful luxury equated with decadence and the most wicked form of high living. They really lust after it quite badly, but they know they shouldn't have it, so they quell their consciences by making it difficult to get at. The lid of the icebox is so small that you have to chop even a modest block of ice in two to get it in — which makes it melt twice as fast, of course. And, having got the ice in, there's precious little room for anything else. Even if you can squeeze a steak or two or a pack of ice cream in there, you'll find no shelves to keep stuff off the ice. In addition, the restricted amount of space over the icebox makes it inconvenient to stow or retrieve anything there. Deliberately inconvenient, presumably.

"You begin to realize that this is no club racer/weekend cruiser after all. There are no compromises here."

To compensate, there is a wonderful, sit-down navigation desk, big enough to take a full-sized chart folded only once. It faces forward, so the navigator doesn't get more confused than usual when plotting a course, and it hinges up to reveal stowage space for about 100 charts. Bulkheads and shelves forward of the desk and to the side of it offer convenient sites for navigation instruments, books, radios, GPS, and the other paraphernalia that stir a navigator's heart.

The rig

The standard mast is a powerful aluminum extrusion from Proctor, untapered all the way up. The single pair of aluminum spreaders is shaped in an airfoil section. The basic sail area of this masthead sloop is a little short of 500 square feet, split almost evenly fore and aft of the keel-stepped mast.

The boom is equipped with easily worked slab reefing, and the mainsail comes with two rows of reef points sewn in. A third row is a good idea if you're not planning to carry a storm trysail.

She has a single forestay and backstay of rugged proportions and twin lower shrouds on each side. The mainsheet attaches well aft, clear of the cockpit, and foresail sheet winches are ready to hand. Everything is nicely set up for the singlehander.

Performance

You wouldn't expect this boat to be particularly close-winded or fast to weather — and she's neither. That is not to say, however, that she won't pluck herself off a lee shore with a lot of crashing and bashing when the need arises. She will plug away into heavy head seas far longer than most other boats of her size, using her considerable weight and momentum to punch her way through and gradually gain an offing.

But as soon as the wind is freed a bit, she comes into her own. She is beautifully balanced, requiring only the lightest touch on the tiller in any weather, and she tracks straight and true when running before the wind in heavy weather, rarely showing even the faintest inclination to broach. With a reefed jib only, a self-steering vane gear will take her safely downwind in big following seas in 40 knots.

Under twin headsails, steered by a windvane, she'll peel off 140 miles a day like clockwork with no help from her crew at all.

She has the ability to heave to under

A large cockpit, at right, both isolates and protects voyagers from the elements. The floor grating protects the top of the fuel tank, immediately below it. *Pagan Knight,* at left, shows the Nick 31 profile.

a reefed mainsail only, riding the seas like a gull with her head under her wing. In storm conditions too heavy even for heaving to, she lies ahull with reassuring steadiness, heeled over by the pressure of wind on her mast, and presents her strongest area — the rounded sections of her hull — to the breaking waves.

Known weaknesses

She needs large headsails for decent light-weather performance.

Like all British-built boats, she's expensive in dollar terms.

The icebox is miserable.

There's no provision belowdecks for a propane shut-off valve for the cooker. Perhaps Europeans don't blow themselves up as frequently as Americans do, but for your own safety you should fit a valve that complies with the standards of the American Boat and Yacht Council.

Owner's opinion

Art Stamey sails the Nicholson 31 *Desormais II* out of Everett, just north of Seattle, on Puget Sound. He bought her in 1986 from a Canadian who had already sailed her around Cape Horn.

He had been wanting a Nicholson for some time. "Ferenc Maté's books sensitized me to the worth of Nicholson yachts. And the fact that they made Nelson's flagship, *Victory*, made it an acceptable yard for me."

In April 1992, Art sailed her single-handed to Raiatea, one of the islands of the Society group in the South Pacific. Later, he sailed her to Hawaii, a voyage of about 8,500 miles altogether. As a busy dentist, he had little spare time, so he had a friend sail her back from Hawaii to Everett for him.

When Art left Neah Bay, in the Strait of Juan de Fuca, on his outbound leg, it was in the face of a storm warning.

"I was well prepared," he says. "The storm was forecast for 48 hours hence and I thought, 'Well, let's get out to sea and see what she can do.' I was a good 100 miles offshore when it struck, and she was surprisingly comfortable.

"The outstanding feature of this boat," he adds, "is her ability to heave to with the tiller lashed to leeward slightly. She sits like a duck on the water in winds up to 50 knots under a third-reefed mainsail only."

Her best point of sail, he says, is a broad reach. "She handles beautifully then, carrying a full main and a working jib in winds of 25 knots with the Aries self-steering vane doing all the steering. It's a very seakindly point of sailing."

Desormais II carried a bit of weather helm, but not much: "On the whole she was nicely balanced."

Art 's first action in rising wind was to reduce the roller-furling 110-percent headsail down to about 90 percent. Then, if the wind increased further, he'd take the first reef in the mainsail, followed by a second reef in the main. In even stronger winds, he'd furl the foresail completely and set a storm jib. Finally, in storm-force winds, he'd strike the jib and heave to under just the mainsail with three reefs in it — the equivalent of a storm trysail.

He never felt apprehensive about the cockpit being too big: "It has huge scuppers draining out through the transom. I never felt scared of a pooping."

He says the original Yanmar 22.5-hp diesel engine was perfectly adequate with a twin-bladed propeller.

In summary, he says: "She's a seakindly, dry boat, very well constructed. I have no complaints about the interior. It's not luxurious, but it's not Spartan either."

His advice for anyone planning to take a Nicholson 31 across an ocean:

- Check the mast inserts for the shroud terminals. They're stainless-steel liners. His cracked, and he replaced them all.
- Bulwarks would afford a better foothold on the sidedecks in bad weather.
- Fit a boom gallows: "It's great for grabbing on at any time, and it's a very handy place to steady yourself against while you take sextant sights."

Conclusion

This is a boat you can trust in any weather far out to sea. She doesn't have the "traditional" looks of a round-the-worlder — neither bowsprit nor teak-laid decks — but she'll perform as well as any Colin Archer type and, in some situations, much better.

She has just the right amount of room for a cruising couple and plenty of stowage space for their gear and provisions. She's docile, undemanding, and responsive to the helm — a delightful boat to sail on long passages.

A used Nicholson 31 will set you back between $30,000 and $50,000, depending on age and condition. You might have to be patient, because they are fairly scarce in the United States, and owners tend to hang on to them. But if you can't wait, there are usually plenty for sale in Britain. Why not buy one over there and sail her back?

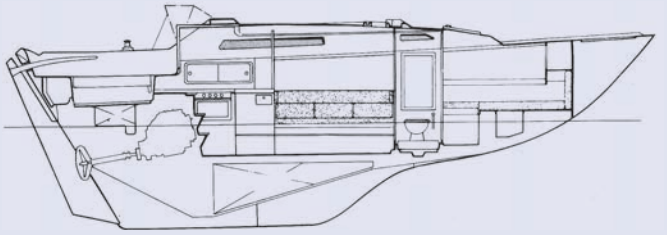
In short

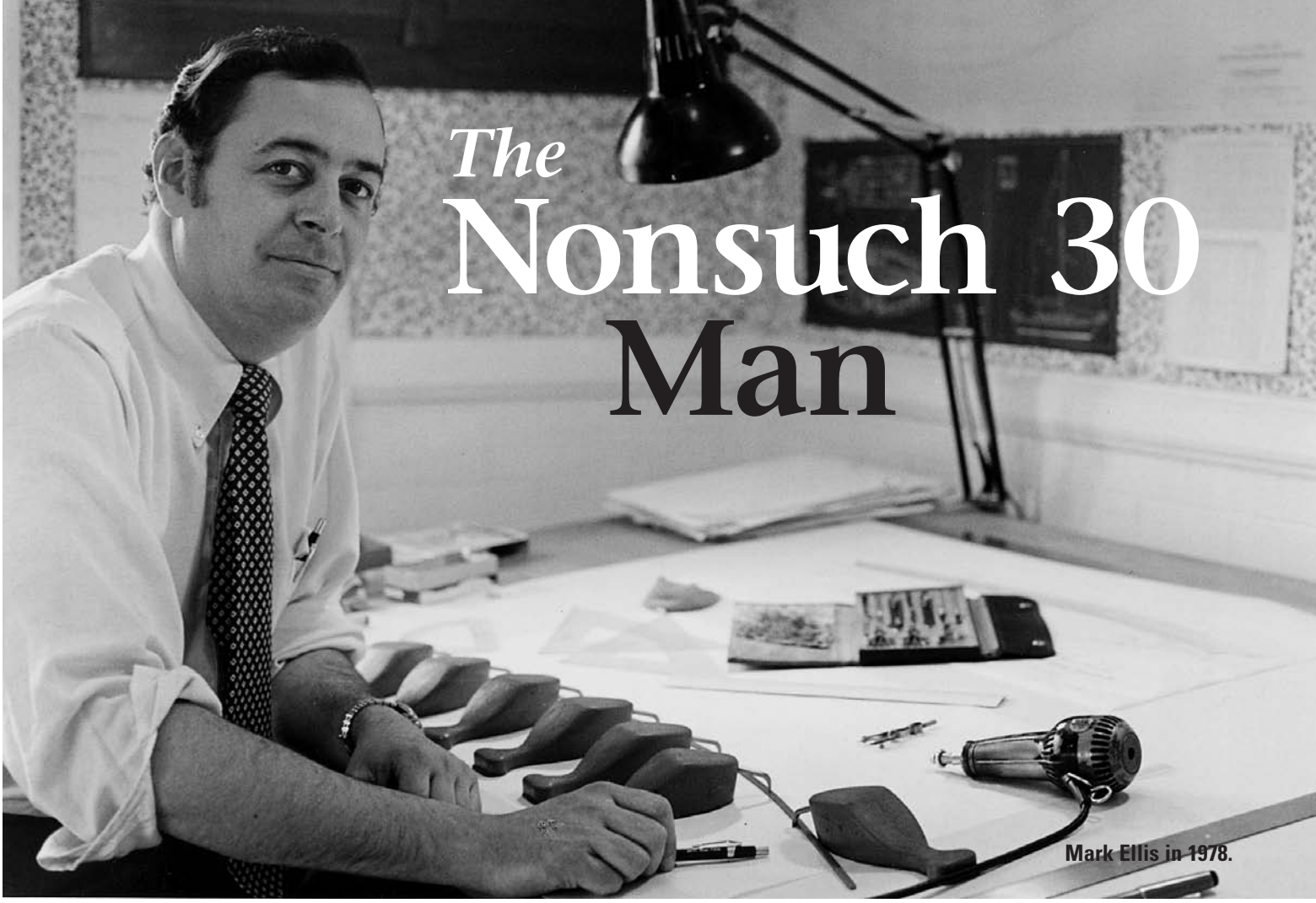
Nicholson 31

Designer: Camper & Nicholsons, Ltd.
LOA: 30 feet 7 inches
LWL: 24 feet 2 inches
Beam: 10 feet 3 inches
Draft: 5 feet 0 inches
Displacement: 14,750 pounds
Sail area: 500 square feet
Ballast: Encapsulated lead, 5,300 pounds
Spars: Aluminum
Auxiliary: Yanmar diesel 22.5 hp
Designed as: Ocean cruiser

In comparison

- **Safety-at-sea factor:** 9 (Rated out of 10, with 10 being the safest.)
- **Speed rating:** Not fast to windward, but a good passagemaker when sailing free, capable of averaging 140 miles a day.
- **Ocean comfort level:** Up to three adults in comfort; two adults and two kids in less comfort; four adults in relative discomfort.





The Nonsuch 30 Man

Mark Ellis in 1978.

Meet Mark Ellis, designer of a most unusual catboat

by Dan Spurr

Mark Ellis, the energetic designer of the Niagara 35, Nonsuch 30, and many other handsome production and custom boats, is a New York Yankee who moved to Canada as a member of George Cuthbertson's court — and stayed.

Perhaps you've seen him at a boat show greeting the public in the cavernous cockpit of the Northeast 400 motorsailer or, some years past, in one of his best-known designs, a Nonsuch catboat. More likely, you saw him flying by with leather briefcase in hand, headed for who-knows-where. Mark doesn't sit still long. Always nattily attired and going to windward at 30 degrees apparent, Mark Ellis short-tacked through an impressive string of design houses in becoming one of Canada's premier yacht designers.

Mark was born February 4, 1945, in Watertown, New York; that's "upstate," not far from the eastern end of Lake Ontario. His father owned a department store in which Mark worked as a boy. This was his first exposure to retail and to business, and the experience still serves him well.

The Ellis family was a sailing family. In 1930, Mark's father had an Atkin yawl designed and built. This was kept and cruised on Lake Ontario. Later the family bought an island on the St. Lawrence River, one of the Thousand Islands. Mark learned to sail there aboard what he calls "an overgrown Lightning" and a small frostbiter.

At the Clayton Yacht Club in Clayton and the Crescent Yacht Club in Chaumont, both in New York, he raced a wickedly fast Dragon-class boat, the 29-foot keelboat sailed with a crew of three. He also taught sailing at both clubs. Spending so much time around boats, it's no wonder he developed an interest in design. Some see the form, some don't. Mark did.

One year off

His first year of college was spent not far away at Syracuse University, followed by a year off when he worked first at Bob Derektor's yard in Mamaroneck, New York, followed by the Minneford yard at nearby City Island. Paul Coble, the famed surveyor, was at the Minneford yard at the time and rotated Mark through "every gang in the yard," beginning with cleaning boat bottoms with "witches' brooms" and progressing up to rigging and planking. The yard had just gotten the contract to build *Constellation* and a big motorsailer for Henry Morgan called *Dajinn*. Soon, Minneford would turn to aluminum construction, but *Dajinn* was wood. "The gang came from the old Nevins yard," Mark says. "I watched one guy sight a plank, run it through the planer two times, and then fit it. They were that good."

After the year was up, it was time to return to college. With the thought of pursuing a degree in naval architecture, he applied to the University of Michigan and was accepted. But the more he learned about the program,

the more Mark realized it involved a lot of marine engineering and big-ship work, when his love was always for smaller boats. So he declined and stayed on the East Coast to take a degree in business administration from Boston University.

While attending school he worked part-time and during summers for C. Raymond Hunt & Associates. At that time, Ray Hunt was in the process of turning over the business to John Deknatel, who moved the office from Padanaram, Massachusetts, to Cambridge. "I was a so-so, self-taught draftsman," Mark says. "I was a reasonable sailor and had run a lot of powerboats, but I didn't know enough to help them much. They helped me a lot more than I helped them."

Looked for work

In 1968, Mark graduated with a bachelor of science degree and began looking for work. "I never answered a newspaper ad," he says. "I just walked in the door and said, 'This is what I can do.' "

The next door he walked through belonged to none other than Philip Rhodes, a well-known yacht designer and marine engineer in New York City.

"Phil's son, Bodie, and Jim McCurdy had just left," Mark remembers, "which left a sort of vacuum that worked out well for me. I was fortunate to work right under Phil."

"I never answered a newspaper ad," he says. "I just walked in the door and said, 'This is what I can do.' "

Rhodes had three boats abuilding in Germany, and 23-year-old Mark was made project manager, where his business acumen helped enormously with accounting, purchasing equipment, and handling overseas shipments. These were no mean projects: two 67-foot ketches and a 98-foot ketch. He made three trips abroad working out details. "The designer is the arbiter between the yard and the owner," he says.

In 1969, his first child, Joe, was born, and he and his wife decided they did not wish to raise him in New York City. So Mark next walked through the doorway of Ted Hood's Little Harbor Boat Yard in Marblehead, Massachusetts. Dieter Empacher and Walter Wales were on the design team. Mark, who had worked drawing powerboats and managing projects, now was assigned to sailing rigs. Under the tutelage of engineer Walter Wales, he also developed accommodation and deck plans for the various heavy, whale-bottom, centerboard boats Hood was having built at the Frans Maas yard in the Netherlands. "Again," he says, "they were nice people, and I learned a lot. I used to race Sundays with Ted on one of his *Robins*, a 52-foot centerboard yawl."

Bright young group

Before coming to Little Harbor, he'd written a query letter to George Cuthbertson at C&C Yachts, where a bunch of bright young designers were churning out dominating racers and popular performance cruisers and George C. was king of the court. A year later, in 1970, he got a call from Cuthbertson asking if he was still looking for work. A sponge who'd soaked up all the information he could in Marblehead, Mark headed west to Oakville, Ontario.

"I knew the area," he says, "and just at that time the amalgamation [of the four founding companies, Belleville Marine Yard, Hinterhoeller Yachts, C&C, and Bruckmann Manufacturing; see *Good Old Boat*, September 2002] was taking place. The company's prospects were looking up. Henri Adriaanse, who'd worked for E. G. Van de Stadt, and I were the only ones who'd worked in an outside design office. The others, like Rob Ball and Rob Mazza, all grew up there.

"It was the hot place to be in the early 1970s. We were working on pretty exciting stuff. Since I was now a rig specialist, I did the rigs, beginning with the C&C 61, *Sorcery*, and then the 43. I did all sorts of general stuff, too, but eventually drifted into the business end. They didn't really have a strong business orientation . . . boats would leave without being paid for, that sort of thing. I began selling boats for the Bruckmann custom boat division and sailing a lot with clients — club races, the SORC, the Bermuda Race. I pushed the whole yachting establishment onto C&C, which was good.

"At C&C," Mark continues, "the development of a new model began with George Cuthbertson's preliminary drawings. He'd then send them to Henri Adriaanse, for the lines, and

Mark Ellis' popular Nonsuch 30, at left, and the Niagara 35, at right.

Rob Ball, who did all the technical stuff. George Cassian did the rigs, decks, and detailed metal pieces, and I was second to Cassian."

Always learning

As he had everywhere else he worked, Mark learned a lot — about yacht design, construction, and sales. But in 1975 it was again time to move on. C&C's decision to open plants in Germany and Rhode Island, at a time when the industry was in one of its periodic downturns, was "more eager than sense," Mark says.

He took the next step in a logical staircase and opened his own company, Mark Ellis Design Ltd. His first commission was the Aurora 40, but it was the second that really put his name in lights, the Nonsuch 30.

This unusual cruising boat was the brainchild of Canadian yachtsman Gordon Fisher, a friend of Mark's who had owned a series of C&Cs, co-skippered *Red Jacket* in her circuit victory, and co-skippered *Manitou* in her winning of the Canada Cup. "Gordon was," Mark says, "a very knowledgeable yachtsman. He wanted to do a fin-keel, spade-rudder catboat."

Gordon, Mark says, was tired of big boat racing and all that went with it — the care and feeding of crews, maintenance, and expense. What he wanted was a simple boat that could be raced singlehanded or perhaps by two people. Fisher wanted a Ljüngstrom or una rig because he didn't want a boom. Mark wanted a wishbone and, after much conversation, eventually convinced Fisher to go with it.

The catboat concept was taken to George Hinterhoeller, who also had left C&C to again start his own boatbuilding company. George was not in favor of the catboat, believing it had no chance of selling. But when Fisher said he not only had orders for four hulls, but would put up the money for the tooling, too, George couldn't lose.

First in the water was the Nonsuch 30, followed by the 26, 22, and 33. In all, more than 1,000 were built, surprising everyone, but none more than George Hinterhoeller. Mark says, "It just took off."

Weird wishbone

Dick Barton, onetime head of the Chesapeake Bay Nonsuch Association and winner of more than 70 club trophies, told *Soundings* some years ago that the wishbone boom was "weird. But I'm not afraid of weird, and I soon found out that it works." Off the wind, the rig becomes self-vanging, which simplifies sail handling.

"His first commission was the Aurora 40, but it was the second that really put his name in lights, the Nonsuch 30."

Jim Eastland, a dealer who eventually sold hundreds of Nonsuchs, says some customers "couldn't abide the look. Sometimes people would get angry at the idea of being offered one of 'these things.' I didn't have too much of an opinion on the boat myself until I started sailing it," he told *Soundings*. "The traditional catboat's weather helm wasn't there, there was no barn-door rudder hanging off the transom, and it went pretty fast. That's when we realized that the boat was something special."

Unlike some other yacht designers, Mark always retains ownership of his designs. "I get paid by the boat," he says, "I never sell the plans." While some designers have difficulty getting royalties paid, Mark says his business background has enabled him to write contracts that protect his interests. "From a business standpoint," he says, "I've put together agreements that have worked very well. Usually I retain some sort of control over the tooling."

His first powerboat design was the Limestone 24 for Fred Eaton, built by Hinterhoeller, which was followed by the Limestone 20 for the Medeiros Boat Works of Oakville, Ontario. Because he'd worked for C. Raymond Hunt & Associates, who pioneered the deep-V hull form, and spent so much time driving powerboats, Mark says he felt more confident about his ability to design a good powerboat than he was of the Nonsuch's cat rig with wishbone. Other builders did 17- and 22-foot versions.

Over the next few years, all but Medeiros went out of business, so Mark recovered the tooling and gave it to Medeiros, who then produced the entire line under the Limestone name. Mark is quick to point out that this was only possible because his contracts with the other builders had provisions concerning his rights to the tooling.

Aboard for the ride

During the last 10 years or so, a number of high-end sailboat builders have started building classy powerboats, many styled after Downeast lobster boats, and Mark Ellis hopped aboard for the ride. The Legacy 40, built by Freedom Yachts in Middletown, Rhode Island, was tooled by Bruckmann in Ontario and later sold to Freedom.

"I was after something that would operate in the mid-teens, plane at 12, and top out at 20 to 21," Mark says. "We developed a hull form that's a deep V forward, and as it comes aft there's a lot of rocker and a large chine flat. That's what makes the boat go. You sort of envision what's going to work. In this business, you go straight from the drawings to the plug to the mold to the boat without

The custom-designed Bruckmann 42 is sure to elicit sighs of appreciation.

testing. The 40 was introduced at the 1994 Newport boat show, and I made Mark Bruckmann launch the boat just before it so we could show that it works. People were telling the man who put up the money for the tooling that a single engine might not be enough power. Of course I knew the boat could handle twin engines, but because these boats appeal to sailors I thought it was important to also offer the economies of a single engine. During sea trials it ran right in the numbers, planing at 12, topping out at 21."

The Legacy 34 was added later, and similar designs are being built by Bruckmann (a 56-footer) and Barrett Holby (the Pilot 19 and 24).

Mark's versatility extends to the motorsailer genre as well. His friend Jim Eastland, a former C&C dealer, presented him with his first motorsailer design commission. "Jim has a good design sense," Mark says. "He came to me with the idea of a motorsailer, saying he really thought there's a place for this. Sailors were dropping out to trawlers, but Jim thought they'd stay with sails if they could still have the trawler comforts. I've always admired the motorsailers of Phil Rhodes and William Hand and thought that with a fin keel we could really improve performance.

Flattened out aft

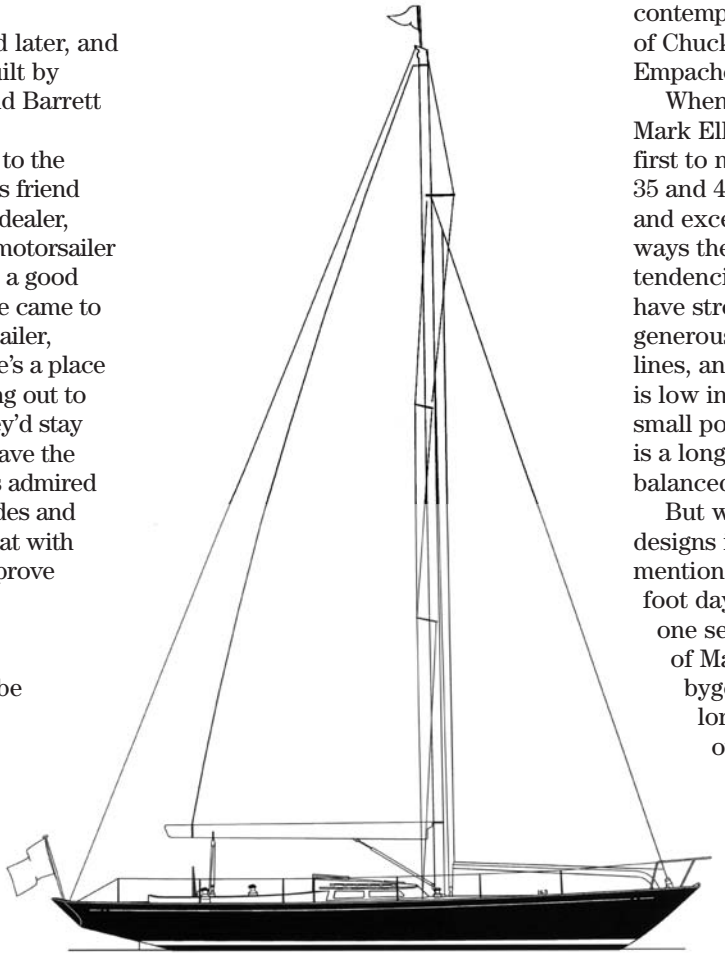
"Originally the boat was to be a 36, but it was stretched to 37½ feet," he adds. "The basic concept of the Northeast 400 was a Nonsuch except that it was flattened out aft so it wouldn't dig in the stern at speed. And we had to make sure that when the boat heeled it would still balance. In flat water it does 10 knots with its 100-horsepower four-banger Yanmar."

The Northeast 37 is built by Cabo Rico in Costa Rica. Mark has visited the yard there and is impressed with the facility and staff. A similar motorsailer design is under construction at Bruckmann Manufacturing in Oakville, the Bruckmann 480.

Design philosophy

When asked to describe his design philosophy, Mark says, "There are

"Unlike some other yacht designers, Mark always retains ownership of his designs. 'I get paid by the boat,' he says, 'I never sell the plans.' "



Sail plan for *Volunteer*, a custom 47-foot sloop.

Resources

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really two sides to it. One is aesthetics, which is very important to me. There's a classic line that lasts; 20 years later it still appeals. I don't like trendy, boxy boats, though I can see the reason behind them, like stretching waterlines, but I've never liked bad aesthetics for no good reason.

"From a performance standpoint," he goes on, "I've done enough racing to like a boat with a nice motion. Balance is key. I could never go along with boats that are odd-shaped and have a cranky motion." Among his contemporaries he admires the work of Chuck Paine, Bob Perry, and Dieter Empacher.

When one runs down the list of Mark Ellis-designed production boats, first to mind may well be the Niagara 35 and 42, both built by Hinterhoeller and excellent cruising boats. In many ways they typify Mark's artistic tendencies and design beliefs. Both have strong, masculine looks with generous freeboard, sweeping sheerlines, and classic ends. The coachroof is low in profile and flat with fairly small portlights. Underwater, the keel is a long cruising fin and the rudder a balanced spade.

But when asked which of his many designs is his favorite, Mark quickly mentions *Volunteer*, the custom 47-foot day sloop built in 1996. In her, one sees a somewhat truer picture of Mark's style, a style from a bygone era when yachts were long and lean with graceful overhangs, low freeboards, and powerful rigs. Not that his other designs, especially those produced as series, are unfaithful to this style, just that commercial enterprises are by necessity closely governed by consumer demands. In *Volunteer*, Mark and owner Fred Eaton were free to express themselves, and what a lovely expression she is!

Mark Ellis lives and works in Oakville, where he manages a successful design office. He enjoys dual citizenship with the U.S. and Canada. An active yachtsman, he enjoys sailing and powerboating, often from his vacation home in the Thousand Islands area.

The wheel deal

How one cruiser converted from tiller steering to wheel and pedestal

by Norman Ralph

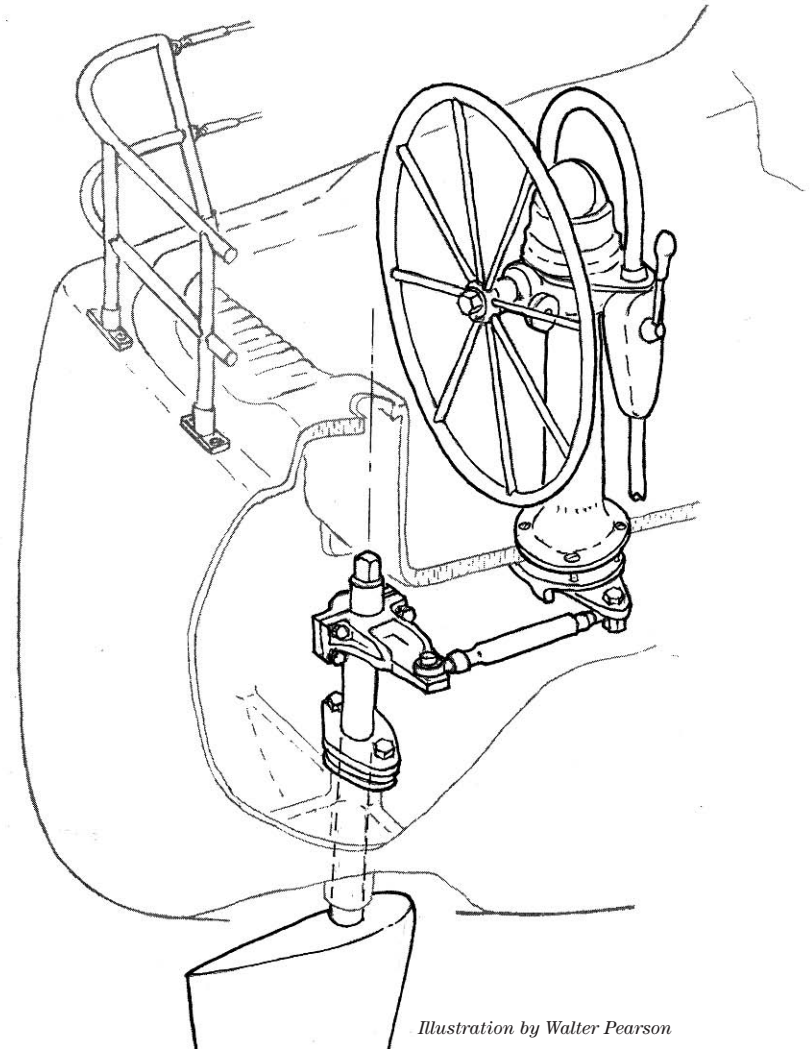


Illustration by Walter Pearson

THE LONGER YOU OWN YOUR SAILboat, the more you upgrade it. Some of the upgrades are planned from the time you purchase the boat. At that point you are aware of its shortcomings and plan to replace an aging system with a modern upgrade. Other upgrades are the result of systems that demanded attention unexpectedly. The water tank starts leaking, or the VHF radio quits. You are faced with repairs or replacements that you had never considered.

One upgrade that we did not consider when we purchased our boat was the conversion from tiller to pedestal steering on our Valiant 32, *Bluebonnet*.

All our previous boats had tillers, and we had considered a tiller to be superior to a wheel in its simplicity and dependability. The "feel" it gives the helmsman convinced us that a wheel was unnecessary. A further argument for the tiller on *Bluebonnet* was the size of the cockpit. As an offshore boat, her cockpit is on the small side, with a bridge deck between the cockpit well and the companionway. All this makes for safety at sea in case the cockpit gets filled by an overtaking wave. At anchor or in the slip, the tiller can be flipped up against the backstay, and the cockpit is open and uncluttered. A wheel takes up some of the limited space and is in the way at anchor.

With all the advantages of a tiller, why did we install pedestal wheel steering? Well, although the tiller doesn't take up as much space in a cockpit as a wheel, it does require space to swing when the boat tacks. With several people in a small cockpit, tacking often resembles a circus as everybody moves to get out of the way. On an offshore passage, where you seldom tack, this is not a problem. But for daysailing in coastal waters with guests aboard, it's a different story.

Our boat takes on a good bit of weather helm as it begins to heel. (Bob Perry, designer of the boat, suggests installing a bowsprit to move the center of effort forward to correct the weather helm.) Installing pedestal steering removed the strain on the helmsman. The weather helm is still there: if you let go of the wheel, the boat turns into the wind, but the constant fighting against it is gone.

The female factor

My wife, Jeannette, was a factor in the decision. She loves to take the helm and leave the sail trim to me. Long hours at the helm left her with sore arms and shoulders, no matter how well I trimmed the sails. Things were still in the discussion stage when we went to the St. Pete Sail Expo one November. A big boat show is a wonderful learning experience. We spent most of our time at the seminars and looking through the booths. I spent a lot of time in the Edson and Whitlock booths, looking and asking questions about wheel-steering systems. I was impressed with the rack-and-pinion steering systems offered.

I spent 30 years in the elevator trade, mostly in service and repair. One of the areas of frequent repair was cables on gates and doors of freight elevators. These cables are usually in the ½-inch to ⅜-inch range, running over sheaves of 4 to 8 inches in

diameter. Since I was aware of the maintenance required, the headaches involved in replacing the cables, and the "meat hooks" to avoid, I was motivated to look for a wheel-steering system that did not require the use of cables. I realize that these systems have been installed on boats for years and have given trouble-free service, but they did not appeal to me. *(The 27-year-old cable-activated Edson system on our boat has been completely trouble-free for at least the 10 years we've owned the boat. –**Ed.**)*

Also, the cable systems took up more space in the cockpit locker area around the rudderpost, and there was the possibility of stored gear getting caught in the sheaves. A rack-and-pinion system, on the other hand, consists of a rack, or flat gear in a semicircle, and a pinion, which is a small gear that engages the rack. As it turns, the semicircle rack rotates a vertical shaft through the pedestal.

Installation

Sometimes the rack is attached directly on the rudderpost. The pinion is mounted on a shaft that is turned by the wheel. As the wheel is turned, the pinion swings the rack and turns the rudderpost. This is usually how the system is installed when the helmsman sits straddling the pinion shaft. Often the wheel is at an angle and mounted lower than on most pedestal systems. This installation was common in older boats and was used on some more modern boats, such as the Island Packet line, until recently. On other installations, the rack and pinion is mounted inside the top of the pedestal, and the rack moves a shaft that passes through the center of the pedestal to an arm attached at the base of the pedestal under the cockpit floor. A rudder arm is attached to the rudder below deck and an adjustable draglink is attached between the rudder arm and the arm at the base of the pedestal. As the wheel is turned and the pinion gear rotates the rack, the shaft turns and the arm under the pedestal moves the rudder via the draglink. Edson's catalog shows both types of rack-and-pinion installations and Whitlock's shows only the type with the rack and pinion in the pedestal.

"My wife was a factor in the decision . . . Long hours at the helm left her with sore arms and shoulders, no matter how well I trimmed the sails."

I received a worksheet to fill out with the measurements needed to obtain the correct units. This included the diameter of the rudder shaft, the location of the keyway in the shaft, and the angle of the rudder shaft from perpendicular. The distance from the rudder shaft to the center of the pedestal was also needed to determine the length of the draglink. Also, the thickness of the cockpit sole and its intended reinforcement was needed to determine the length of the shaft in the center of the pedestal. The diameter of the wheel that I desired was requested. This was determined by the desired height of the center of the wheel above the cockpit sole (28 inches is standard height) and the width of the area between the cockpit seats.

Rack attached directly to rudderpost

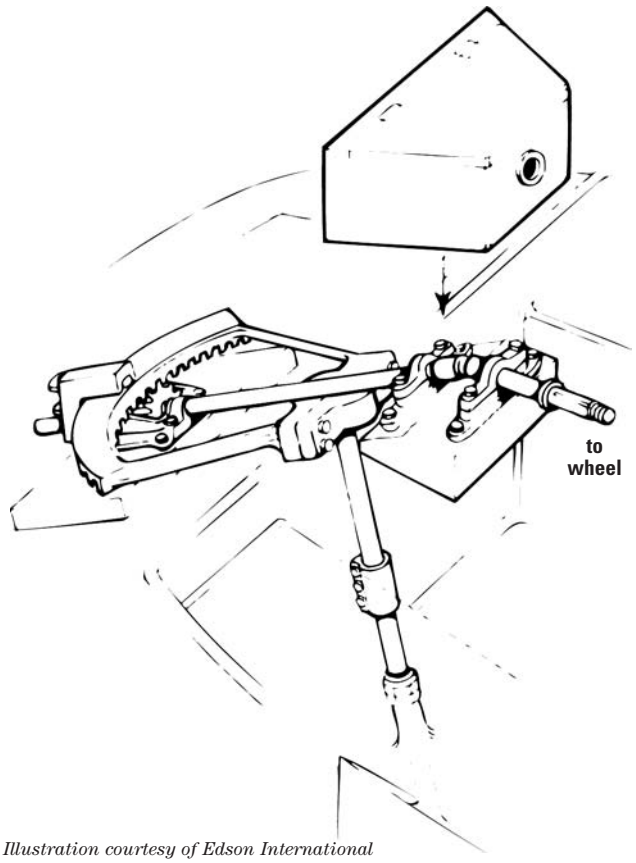


Illustration courtesy of Edson International

The work starts

Once everything arrived, the project got started in earnest. I installed the rudder arm first. This required no preparation and gave me a sense of accomplishment. The rudder arm came in two pieces. The part that went around the rudder shaft had a cap that went halfway around the shaft and was attached with four sockethead screws and Loctite. The keyway on the shaft was in line with the centerline of the boat facing the bow. The rudder arm extended to the starboard side, so the cap was placed in such a way that the keyway in the rudder arm was in the arm and not in the cap.

In some cases at this point in the project you may need to modify the length of the rudder tube to make everything fit. Depending on how high the top of the rudder tube extends above the worst-case waterline, you may need to add a stuffing box to the rudder tube. Edson makes a stuffing box designed for this purpose. Every rudder also hangs from some sort of thrust bearing, typically at the top of the shaft on spade rudders. This thrust bearing must function properly after the new steering system is installed.

I marked the center of the pedestal on the cockpit sole. The location of the pedestal determined the length of the draglink. Several things were considered — such as seating comfort and safety, access to the winches for sail trim, and so on. These were weighed against the desire to keep the pedestal as far aft as practicable to keep the cockpit area clear.

Once the center of the pedestal was marked, I scribed a circle 6 inches in diameter with a compass and cut the hole with a saber saw. The cockpit sole was ⅞ inches

thick. It had a ½-inch balsa core with a ¼-inch laminate on the top and ⅛-inch laminate on the bottom. The cockpit sole should be reinforced when adding a wheel because the pedestal and wheel are going to be the most convenient handholds in the cockpit. Given the height of the pedestal above the sole, considerable leverage will act on the sole. I cut a square piece of ⅝-inch exterior-grade plywood approximately the width of the cockpit sole. I placed a screw in the center of the plywood, 7 inches from each side. With Jeannette's help, I centered that piece under the hole. Next I cut a circle in the plywood.

Into the locker

Before epoxying the plywood in place, I needed to prepare the surface under the cockpit sole. I crawled in the cockpit locker once more and sanded the area around the hole. Then I placed the plywood against the bottom of the cockpit sole and had my wife hold it in place. I marked the outline of the plywood with a pencil. I placed a dropcloth under the hole to catch drips and brushed an epoxy resin/hardener mixture on the area outlined on the bottom of the cockpit sole and on one side of the plywood. I also brushed some of the mixture on the edges of the holes in the cockpit floor and on the edge of the plywood.

I then mixed some colloidal silica in the epoxy mixture to a mayonnaise consistency and spread this mixture on the surface of the plywood. I held it in position under the hole. This mixture would fill in any gaps between the plywood and the underside of the cockpit sole and ensure a good bond. Jeannette clamped it in place. *(Naturally, the plywood reinforcement must be completely sealed in epoxy either before or after it is glued to the bottom of the cockpit sole. –**Ed.**)*

After the epoxy had cured, we placed the pedestal over the hole and centered it. When I was satisfied that everything was aligned properly, I marked the mounting holes and the outline of the pedestal base and set the pedestal aside. I drilled the holes for the four mounting bolts through the cockpit sole and plywood. I made these holes slightly oversized and placed a piece of masking tape over the bottom of the holes. The holes were filled with some epoxy/hardener mix and left for several minutes. Before the mix had hardened, I removed the tape and held a paper cup there to catch any drips. This prevents moisture from seeping into the balsa core if the sealant should fail around the pedestal base.

"Was the project a success? Would I do it over again? Yes and yes."

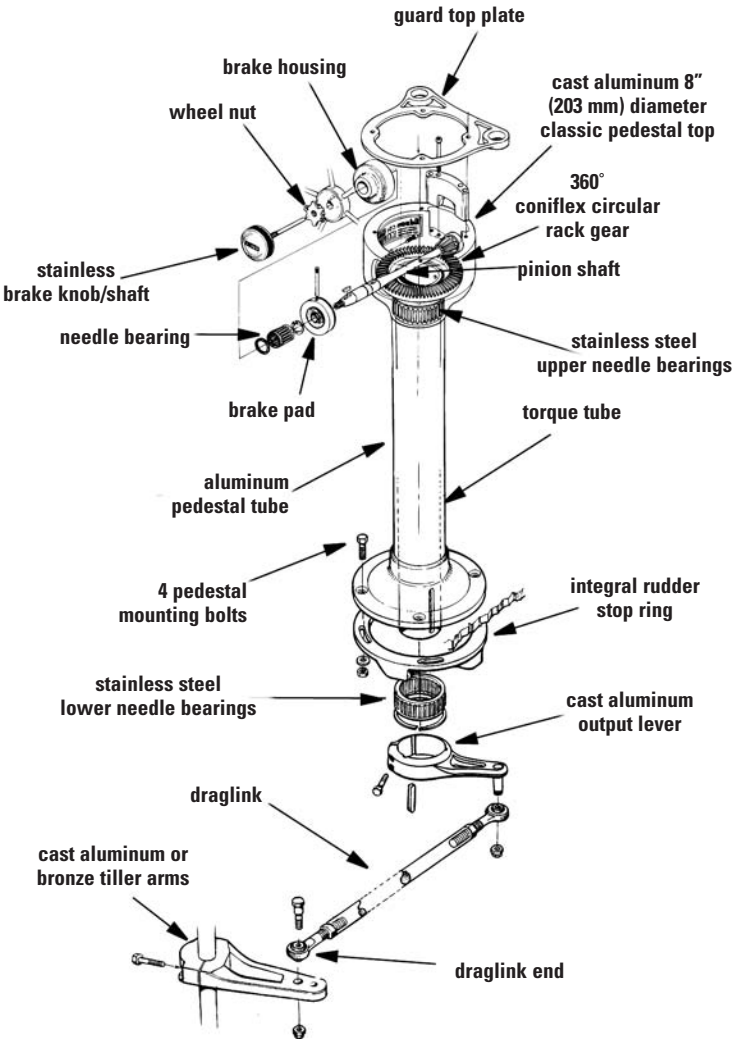


Illustration courtesy of Edson International

Spread sealant

I placed masking tape around the outside of the circle marked on the cockpit sole and spread sealant on this area. The masking tape prevented the sealant from spreading into the adjacent area and simplified cleanup. I set the pedestal in place and inserted the bolts. Below once again, I placed the rudder stop ring over the ends of the mounting bolts and attached the washers and locknuts. I made everything fingertight to allow for final adjustments.

The rudder stop ring is a cast-metal ring with four slotted holes in it. On the ring are two metal "stops" so the pedestal output arm will strike them when it moves to 36 degrees on either side of center or 72 degrees total (the maximum desired travel of the rack). This stop ring prevents the wheel from turning too far and damaging the rack and pinion. An alternative would be to fabricate some mechanical stops adjacent to the rudder shaft for the rudder arm to go against.

The draglink's length is adjustable so this must be determined at this point. I aligned the rudder with the centerline of the boat and the wheel so the pinion gear would be in the center of the rack. Next I attached the draglink to the rudder arm and adjusted its length to attach to the pedestal output arm. The adjustment locknuts on the draglink were then tightened securely. The rudder stop ring was centered so the stops were equidistant from the pedestal output arm and then the four mounting bolts were securely tightened. I swung the wheel from stop to stop (1.8 turns) and checked that there was the same amount of movement on each side of center.

Not perpendicular

It was interesting to note that the tiller arm and the pedestal output arm

are not perpendicular to the centerline of the boat when the rudder is centered. They are angled slightly forward from perpendicular. The angle is determined at the factory and depends on the length of the draglink. Whitlock calls this design "wide-angle geometry." The offset angle from a perpendicular to the keel is necessary because the pedestal arm is shorter than the tiller arm. When the rudder is in line with the keel, it is necessary for the two arms to be parallel, and it is also necessary for the draglink to be perpendicular to both. It is, in effect, tangent to the two arcs that are made by rotation of the arms. To comply with this geometric requirement, the offset angle (forward of perpendicular) varies with the distance between the pivot points of the arms.

When all this is arranged properly, there is an increasing mechanical advantage as the rudder is moved off-center. Because the pedestal output arm is shorter than the tiller arm, it starts out with a mechanical advantage of 1.52:1 when the rudder is centered. As the rudder is moved, the advantage increases to 2.8:1 at a rudder angle of 36 degrees (maximum travel). When you factor in the gear ratio of the rack and pinion in the pedestal, you start out with a mechanical advantage of 7.6:1, and it increases with the rudder angle to 14.5:1. This doesn't include the mechanical advantage of the radius of the wheel itself. This results in a variable ratio that provides a very direct feel in the wheel with more mechanical advantage at high rudder angles.

Once the pedestal was installed, the next step was to move the engine and transmission controls. They were originally installed on the port side of the cockpit well and forward, close to the companionway. As this was out of the reach of the helmsman, the controls needed to be moved. I had purchased a single-lever engine control, which attaches to the pedestal assembly. One lever controls the engine throttle and also shifts the transmission in and out of forward and reverse. This makes shifting from forward to reverse and controlling the engine speed when maneuvering in close quarters much easier because one hand stays on the wheel. Since the old cables from the engine and

"Under sail, the absence of the tiring pull of the weather helm made sailing a pleasure again for my wife."

transmission were too short and at least 20 years old, I purchased new ones to install in the pedestal engine control unit. Some minor fabricating was necessary to make brackets to attach the opposite ends to the respective attachment points on the engine and transmission. The hole in the side of the cockpit well where the old controls had been located needed to be patched, of course.

Rudder shaft stuffing box

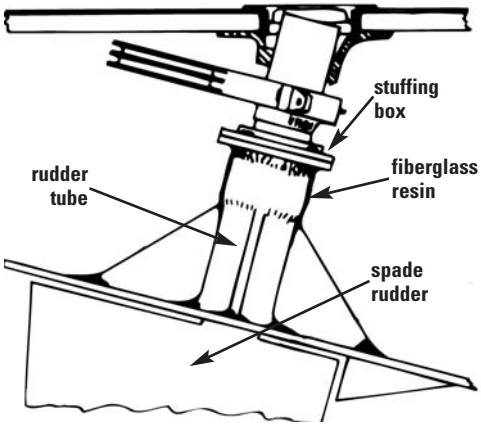


Illustration courtesy of Edson International

Instrument pod

The pedestal package I ordered included a compass and kickback guardrail with an instrument pod that mounts on the guardrail. This pod holds the knot log, wind instrument, and depth meter. The pod is mounted on the guardrail above the compass, yet below eye level when standing or sitting behind the wheel. The next step was to move the instruments from their existing location on the starboard side of the companionway and to install them in the instrument pod, hook up their wiring, and test them. Then I patched their old mounting holes.

The only thing left now was the problem of the top of the rudder shaft that extended about 1½ inches above the cockpit seat behind the wheel. One option would be to cut it off flush. However, I wanted to be able to attach a tiller in case of an emergency. There is a bushing on the rudder shaft where it extends through the cockpit seat. This bushing is chrome-plated bronze and is approximately 4 inches in diameter. It extends 5/16 inch above the cockpit seat. I fabricated a wooden seat out of ⅝-inch exterior-grade plywood to cover the end of the rudder shaft. The seat is 15 inches by 15 inches by 6 inches high. A boat cushion will fit on it comfortably. I cut two pieces of plywood 15 inches by 15 inches and cut a hole the size of the bushing in the bottom of the seat.

This hole was cut where the front edge of the plywood would be even with the edge of the cockpit seat when the plywood was placed over the rudder shaft and its bushing. I cut four smaller pieces of ⅝-inch plywood 4½ inches wide by 14⅜ inches long to make the sides of the seat. One piece was centered on the side of the seat and extended down 2 inches below the edge to prevent the seat from turning from side to side. I attached a pad-eye to the back side of the seat. A lanyard from the pad-eye to another pad-eye in the cockpit prevents the seat from being washed overboard if the cockpit is ever swamped by a following sea.

Ease of handling

Was the project a success? Would I do it over again? Yes and yes. The big plus is the ease of handling, and having all the controls on the pedestal makes operating under power much easier. We spend more time under power than we like to admit. Under sail, the absence of the tiring pull of the weather helm made sailing a pleasure again for my wife.

Minuses? The pedestal in the cockpit does take up precious space. I purchased a quick-release wheel nut that allows the wheel to be removed with a winch handle. At anchor, we remove the wheel and hang it from a bracket on the stern pulpit.

Is this conversion for everyone? This answer depends on the boat, with the expense of the project factored in. Most of all, it depends on the individual needs of each boatowner.

Changing your steering

Look before you take the leap from tiller to wheel

by Phillip Reid

***Miss Bohicket's* cockpit layout with wheel steering.**

THINKING OF CONVERTING (OR BUYing a boat that's been converted) from tiller steering to wheel steering? Read this first.

I wouldn't convert a tiller-steered boat to wheel steering unless the boat is so big and heavy that steering her with a tiller is a Viking's job. The conversion process involves much more than unbolting the tiller and mounting a wheel, pedestal, quadrant, and cables. It can involve the layout of all the boat's controls as well as her cockpit accommodations. Even if you've just bought — or want to buy — a boat that already has a wheel, you might want to go back to the tiller.

My boat, a Pearson 28, was designed for, and originally fitted with, a tiller. A previous owner had installed an Edson destroyer wheel and pedestal with wire-rope cables to the wheel on the rudderpost — a common system for small- to medium-sized sailboats. The components are high quality, and the actual installation was properly done. But it was incomplete.

The previous owner had unbolted the tiller, stowed it below, installed the steering components, and mounted a steering compass in the binnacle, and he was done. But the way the boat was laid out at the factory — from sail controls to electronics — was based on tiller steering. When you steer with a tiller, you sit toward the front of the cockpit, on one side or the other. So the cockpit seats are long, and there is no aft seat.

My boat's choke, throttle, and shifter were forward, easily reached from the head of the tiller. The starter button and ignition were placed just inside the companionway, within reach of the tiller. The mainsheet was an end-boom configuration, running to swivel blocks at the aft end of the seats. The depth sounder, on the overhead just inside the companionway, was easily viewed from the head of the tiller. (The VHF was located too far forward in the main cabin to be accessible at all from the cockpit.)

Different scenario

So now the tiller's gone and a wheel and pedestal are sticking up from the cockpit sole. It's a different scenario with what is now a poorly laid-out boat. There's nowhere to sit behind the wheel. Quick maneuvers under power? Forget it. You can't reach all the engine controls from the wheel. You can't see the depth sounder.

> *"Quick maneuvers under power? Forget it. You can't reach all the engine controls from the wheel."*

Guests are grabbing the compass as a handhold because there's no pedestal guard. You can't leave the helm even long enough to trim the mainsheet, because there's no wheel brake on the pedestal. (The previous owner did convert the mainsheet to mid-boom sheeting, but now the 4:1 mainsheet is underpowered due to loss of leverage — another upgrade for the list.)

I've spent countless hours addressing all this, and for me wheel steering's not worth it. If my boat had come with the "complete" conversion, I certainly wouldn't undo it. But if you have decided you want to replace your tiller with a wheel, check these aspects of your boat's layout and note how each would be affected by the conversion:

Pedestal guard: If there's already a wheel, is there a guard? You'll need one, and guards cost in the $150 - $200 range.

Engine controls: Where are they? Will you be able to reach them from the helm?

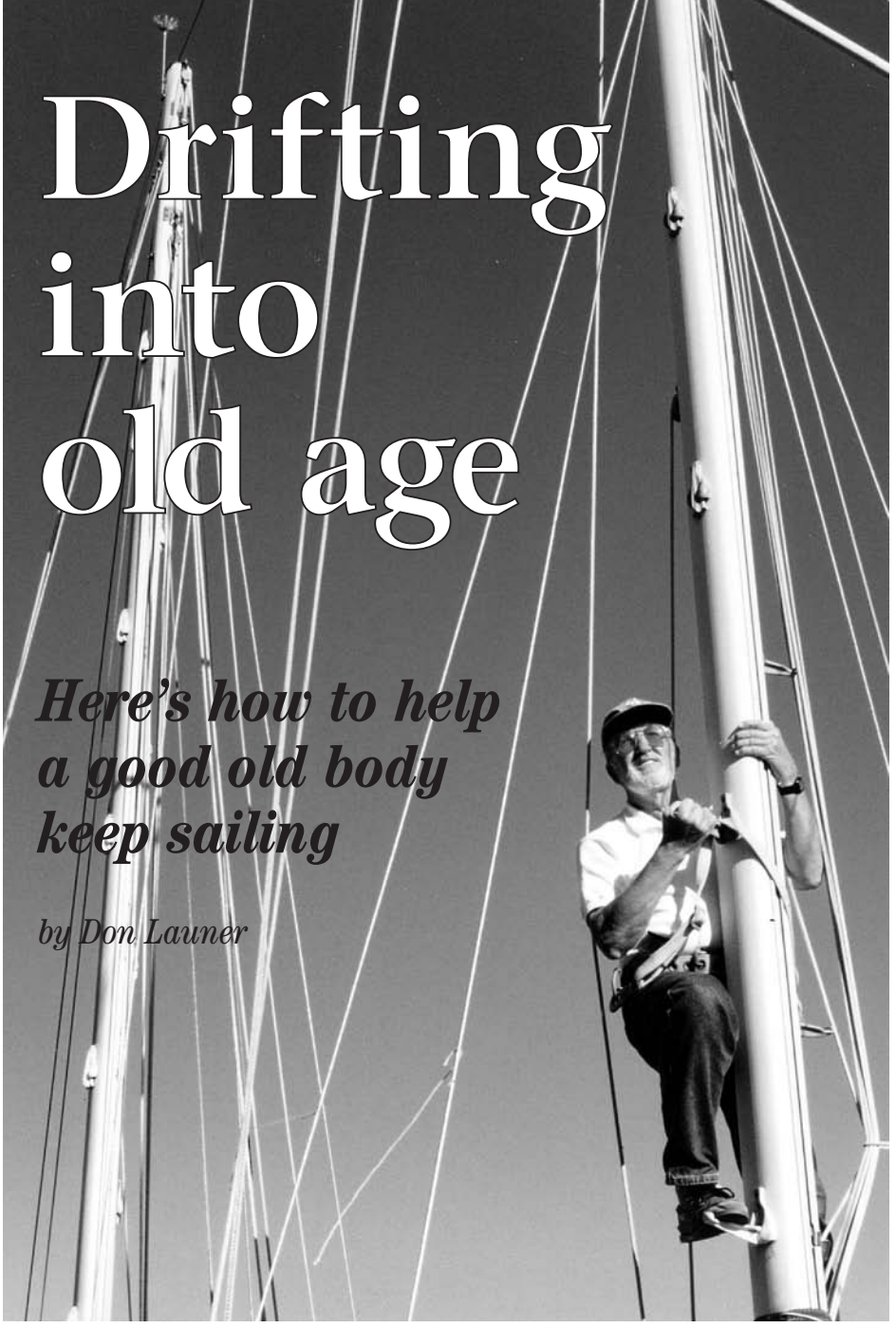
Mainsheet/traveler: Will you have to move them? If you have 4:1 end-boom sheeting and convert to mid-boom, you may find it underpowered.

Helm seat: An athwartship helm seat behind the wheel is awfully nice.

Instruments: Will they be visible?

Steering lock: If you have a tiller, you may have some sort of lock device to hold the stick in place while you do something. If you go with a wheel, you'll need a steering brake for the same purpose, and brakes are in the $150 range. You may also want a quick-release wheel nut (about $43) so you can get the wheel off in a hurry if the steering fails and you need to bolt on your emergency tiller.

Drifting into old age



Here's how to help a good old body keep sailing

by Don Launer

GROWING OLD IS THE MOST UNEXpected thing that happens in one's lifetime. When that three-score milestone fades into the distance behind you, sailing activities take on slightly different priorities.

I've been sailing for more than 68 years. My wife, Elsie, has been sailing with me for 53 years (ever since we were married). We've sailed in all types and sizes of craft and, if the fates allow, look forward to many more years on the water.

What are the special problems for the over-the-hill gang who want to stay on the water, but would like to take things a little easier and enjoy a little more comfort? The simplistic answer is to switch to a smaller boat or change from a sailboat to a trawler-type powerboat. For ease of handling, it would be ideal to have the smallest sailboat that meets your needs, within the boundaries of safety, comfort, and enjoyment.

But most sailors in their 60s, 70s, or 80s have long ago found the boat they love and fitted her out with all the things that make her home. Renouncing their love and embarking on a new boating relationship is not an enticing thought. The only trouble is, we're not as able-bodied as we used to be — a hard thing to admit.

More taxing

Handling a large boat, climbing in and out of dinghies, moving about in rough weather, raising and lowering sail, or hauling in the anchor . . . these activities can become unexpectedly taxing. I enjoy singlehanding my boat, and I have my solo deckwork routine down pat. But I've had a couple of bad scares on deck that I haven't mentioned to my wife. So lately I've been taking more time to think out my deckwork and prepare more carefully while solo-sailing. Although sailing my boat is an effort, giving up my schooner would be like asking me to reject one of our children.

Reduction in physical requirements is primary. For nearly every physically taxing job on deck, there is an easier way or a piece of equipment that can reduce the muscle-power and agility required.

For anchoring, as an example, is it possible to install a roller on the bow where a plow anchor can be stowed? If you use a fluke-type anchor, how about changing from one of the heavy galvanized-steel ones to one of the lightweight modern aluminum-alloy types? Along with a reduction in weight, you can actually increase your holding power with the aluminum anchor. The pull required to release an anchor from a sticky mud bottom is daunting for the older back. An electric or mechanical anchor winch can be a great asset and, if that winch can be operated from the cockpit, anchoring becomes even simpler.

Staying aboard

Most of us use harnesses, but we should use them more frequently as we age, especially when alone on deck. Remember that reaction times slow down some. The installation of fore-and-aft safety lines, or jacklines, is not that complicated, and the small expense involved is a good insurance policy. All you need is forged pad-eyes, through-bolted with backing plates, mounted fore and aft and connected with wire or nylon line.

When choosing jackline material, consider flat nylon webbing instead of round lines, since round ones tend to roll underfoot and could cause a fall. If these lines can be installed free of obstructions, your safety harness can be clipped on in the cockpit, and you can travel from cockpit to bow without unclipping. Some people use two lengths of tethers on their harness, the longer one allowing foredeck work.

Our schooner sports a long bowsprit. Although it gives a saucy look, it presents special problems for a safety line. When doing work out on the end

of the bowsprit, we clip our harness to the fisherman-staysail halyard, which goes to the top of the foremast, near the bow and is cleated off at a pre-marked position for this purpose. The pre-set cleated-off length of this halyard keeps it taut overhead when we're out on the end of the bowsprit *(see photo below)*.

If the ultimate happens and someone goes overboard, a man-overboard retrieval system should be easily available on deck. We have a Lifesling fastened to our stern boom gallows. What if you go overboard while singlehanding? A life jacket (I wear an inflatable one) and a line trailing astern are good ideas. You also have to be able to get back on deck when you're next to the boat. We have a rope ladder with hard rungs that remains on deck, fastened to the base of one of the stanchions. A ⅛-inch nylon line from the bottom rung hangs over the side of the boat and can be reached from the water (see *Good Old Boat*, May 2002). I went into the drink once while getting into my dinghy while at anchor in a secluded cove. It worked out very nicely (and there was no one around to see my foolishness).

Daunting trip

Trips to the top of the mast are not something sailors of any age look forward to, and for older sailors this can become particularly daunting. I've installed folding mast steps to the top of our mainmast and foremast. This

"The dinghy becomes unexpectedly heavier as we get older. Stern davits ease its handling."

lets me go up the mast at my own pace without having someone on deck to hoist me. The folding steps give a good, solid feeling of stability. I always use a nylon linesman's belt, which keeps me safe while climbing and when aloft.

Much fatiguing and hazardous foredeck work can be reduced with a jib-furling system. Aside from its obvious advantages, it makes the foredeck a safer place when anchoring under sail, with no sailcloth or sheets to slide on or trip over. It also stores the genoa on a furler, so the sail doesn't take up room in the cabin or sail locker.

To ease mainsail furling, lazy-jacks hold the sail close to the boom as the sail is lowered. This helps prevent the lowered sail from billowing out in the wind, getting underfoot, or else blocking visibility. Lazy-jacks are easily rigged with a minimum of hardware. Their only two drawbacks are a slight increase in windage aloft and the added care required when hoisting sail to keep the battens from going outside the lazy-jacks. Lazy-jacks also provide an emergency backup system in the event of a topping-lift failure, preventing the boom from dropping into the cockpit and doing damage to equipment or craniums.

A roller-furling system on the mainsail is another way of simplifying the furling procedure and should be considered when purchasing a new boat. For an existing boat, it will incur major refitting and expense.

Eases furling

Our traditionally-rigged schooner has a boom gallows, another asset that eases sail furling. Although I never had a boat with one before, it seems ready-made for the older sailor. When furling the main in high and confused seas while standing on the cockpit seats, I now have a solid boom to hang on to, instead of one that is swinging back and forth. An ancillary advantage of the boom gallows is that it provides a

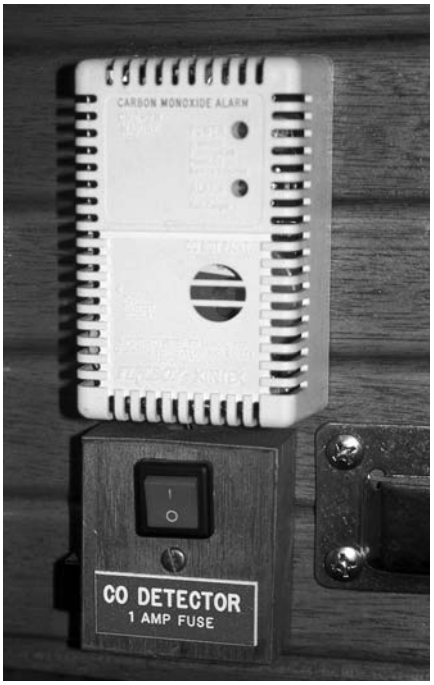
Our fisherman-staysail halyard, cleated off at a pre-marked position, provides an overhead safety line when furling sail out on the bowsprit, below left. The lazy-jacks on our club-footed jib contain the sail and also act as a topping-lift for the jib boom. Additional lazy-jacks are on the mainsail, center. The cabintop jackline allows movement from cockpit to foredeck without unclipping the harness, right. The line that is clipped to the harness is long enough for deckwork, yet short enough so you can't go too far overboard.

stable ridgepole for a winter cover, boom tent, or cockpit awning.

And speaking of cockpit awnings, we all know that reducing our amount of time in the sun is essential. Although this advice is true for all age groups, it's only as we get older that those sun-worshiping indiscretions of our youth return to haunt us, and we are belatedly concerned. A wide-brimmed hat is a good idea, and make sure when purchasing sunglasses that they are "UV-400 protected." Our eyes have been subjected to a lifetime of sunlight, but it's not too late to give them better care. In addition to the hat and sunblock, a cockpit dodger, awning, or Bimini will reduce the UV and make the cockpit more enjoyable in hot climates . . . as well as on rainy days.

We have a cockpit awning that zips onto the aft edge of our dodger and extends to our boom gallows. It has side panels that can be attached to the lifelines, keeping the rain outside of the cockpit coaming. Although the mainsail can't be used when the awning is in place, it is wonderful while at anchor, in a marina, or while motoring on a rainy day.

Being in the cockpit during those cold, windy days in the spring or fall can be exhausting. A dodger provides protection from the cold wind and spray. And to make the trip around the dodger to the foredeck safer, we've installed dodger handholds (see the March 2001 issue of *Good Old Boat*).



"It's a paradox that the older we get, the more we want to simplify our lives, while at the same time, the more comfort counts."

Weather cloths, fastened to the deck stanchions, also help to cut those chilling winds. More handholds in the cabin also are a good day's project that will repay your efforts in the future.

If you don't have one already, consider an autopilot. There are many good ones on the market, which, for a very small investment of electricity, will save many tedious hours at the helm. They are a delight when hoisting sail singlehanded, holding the boat into the wind perfectly and obviating those mad dashes back to the cockpit to readjust the heading. Autopilots are also welcome on long days under power when the engine is providing the necessary electricity. Leading halyards back to winches in the cockpit where you are close to your engine and rudder control also makes it easier to hoist sail when singlehanded.

The dinghy becomes unexpectedly heavier as we get older. Stern davits ease its handling. If you prefer a hard dinghy, you might want to consider a nesting dinghy that allows you to lower smaller and lighter sections over the side from the cabintop.

Are the soles of those comfortable old deck shoes becoming hard and slippery? Relegate them to shoreside activities. A few splashes of bottom paint won't hurt them now. You don't want to become the new candidate for the "I've fallen, and I can't get up" commercial.

Comfort belowdecks

Although safety equipment and labor-saving devices on deck are important, let's not forget belowdecks comfort. It's a paradox that the older we get, the more we want to simplify our lives, while at the same time, the more comfort counts. In pursuit of the comfort side of the equation, an inverter that will power a small microwave, hair dryer, or electric coffee pot can make your sailing life more pleasant. In the last year or two, inverter sizes and prices have come down, and their AC output wattages and efficiencies have gone up.

As I get older, my body's thermostat doesn't work as well as it used to, so high heat and humidity and cold, windy days become uncomfortable. We've installed a small marine air conditioner (with salt water heat exchanger) beneath the settee for the hot days. A few years ago we were visiting a marina in Baltimore's Inner Harbor in August. It was 90 degrees with 90-percent humidity. Our on-board air conditioner made a good night's sleep possible.

The flip side of this is cabin heating for cold nights. Deciding which heating system to install is not easy. Options to evaluate are price, size, reliability, safety, ease of maintenance and installation, combustion efficiency, heat exchanger efficiency, and choice of hot water, forced air, convection, electric, propane, compressed natural gas, diesel, or kerosene. We have three kerosene lamps aboard: a trawler lamp above the cabin table and two bulkhead-mounted ones. These take the chill off a cool evening, but for really cold weather, our diesel cabin heater will bring the cabin

A carbon monoxide detector like the one at left, is important. Don's diesel cabin heater, at right, also warms his coffee pot.

temperature up into the 70s on the coldest of nights.

Carbon monoxide detector

When we're in a marina on a cold night, we have an electric heater that we use when ample shorepower is available. If you're using any type of flame to heat the cabin, or if you have a cooking stove that uses a combustible fuel, investing in a 12-volt carbon monoxide detector is a must. It's a good investment in any case, since it can also warn you of engine-exhaust problems.

When installing labor-saving devices and amenities, however, remember the old engineering truism: "As the complexity of a system approaches infinity, the time between failures approaches zero." This means that you should have manuals aboard for all your equipment, and if your technical abilities preclude repairing a system, then taking it out of service, by-passing it, or changing to a simpler system should be in your bag of tricks.

As important as it is to upgrade our boat's hardware, we should remember that our mental software may also need some reprogramming. When on a cruise, if the weather is kicking up and you're secure at anchor, on a mooring, or in a marina, a day of boatkeeping might be more productive than fighting it out outside. There are always those little jobs to be done. When was the last time you changed your oil?

And if you're coastal-cruising, plan on shorter day's runs. You'll enjoy the cruise more if you're not pushing your limits. Also, try to resist the temptation, when sailing on the same course as another sailboat, to engage in a race. You're not in the business of having to prove yourself everyday anymore. Relax!

". . . I must admit that I've had a couple of bad scares on deck that I haven't mentioned to my wife."

It's also a good idea to pay attention to the old adage: "The time to shorten sail is when you first begin to think about it." The corollary to this is carrying less sail to begin with. After all, it's easier to cook and move about when you're at a reasonable angle of heel.

Heightened appreciation

Perhaps it's the realization of mortality, but in spite of the march of time, I've found that my appreciation of a life afloat actually seems heightened as I grow older. And yes, I am old, a word that I find not nearly as denigrating as the euphemism "senior citizen."

I see cruising under sail as a microcosm of our lives. We hone our skills and start out for destinations we hope to reach and yet may never reach. If we do reach these destinations, it may be much later than we intended. There are unexpected storms along the way, forcing us to change our plans and sometimes taking us to places more fascinating and encounters more exciting than those we had originally envisioned. By the grace of God, good luck, perseverance, and an accident of genes, we've made it this far in reasonably good health and agility. That doesn't warrant any special consideration or veneration from others. As another old sailor would say at the end of his nightly newscast, "That's the way it is."

For me, the satisfaction of being on a small boat involves the sense of self-sufficiency, with its subdivisions of ingenuity and endurance. I appreciate a special feeling of independence in a world where neither government nor social status can help . . . or interfere. You can be on your own partly or entirely, depending on how much self-sufficiency you feel like taking on. For those of any age, it's a matter of feeling alive.

A cockpit awning, below left, can provide protection from the sun as well as keep sailors dry on rainy days. The anchor winch, below right, saves older backs from strain. Furling the mainsail is an easier job when the boom is secure in the boom gallows, at left, and the sail is controlled by lazy-jacks.

Watch your winches

Here's how to maintain your winches for long, reliable service

by Don Launer

Illustration courtesy of Harken Yacht Equipment

In the early history of sail, all sail handling was accomplished through brute strength or with the help of multiple-part blocks and tackles. From the days of the earliest sailing ships there were, of course, capstans on board that allowed a stout crew to weigh anchor or raise spars, and later, in the 19th century, steam-powered winches came into use aboard larger vessels. But for the recreational sailor, it wasn't till the mid-1900s that sheet and halyard winches, as we now know them, finally came into general use.

Those first expensive winches appeared on the 12-Meter boats of the 1950s. Top-of-the-line blocks in those days were made of bronze, with no roller bearings, so it was a logical step to construct those first winches of cast bronze also. Those newfangled pieces of equipment were first fabricated for high-end racing yachts. They had a maximum of two speeds and no self-tailing apparatus.

By the 1970s, lighter-weight and less expensive winches with aluminum drums appeared on the scene. These could have up to three speeds. Finally, in the 1980s, stainless-steel drums replaced those of aluminum, and today we can find four-speed winches with carbon drums, titanium gears, and carbon gearboxes and shafts.

Power ratio

Small winches provide the ability to exert large forces on lines by using a combination of long winch handles coupled to small-diameter drums and ratchets to prevent lines from running free when the handle is released. Larger winches employ reduction gears and multiple speeds. Although the average sailor can exert about a 30- or 40-pound horizontal pull on a line, on larger boats this is just not enough. Sheet loads in the thousands of pounds are now common on large cruising or racing yachts.

> *"Since modern winches are so reliable, they tend to be the most neglected pieces of gear on board."*

By gaining mechanical advantage through leverage (a long winch handle turning a small drum) and reduction gears (the number of times the handle is turned to create one revolution of the drum), high "power ratios" can be developed. The power ratio is the ratio of handle length to drum radius, multiplied by the gear ratio. Thus, if you have a 10-inch handle, a 5-inch drum, and a 5:1 gear ratio, then your handle-to-drum ratio is 10:2.5 (2.5 being the radius of the drum), and the mechanical advantage is 4 (10 ÷ 2.5). When this is multiplied by the gear ratio (5) you have a power ratio of 4 x 5 = 20:1. Winches are given numbers that approximate this power ratio.

Thus, a #8 winch has a power ratio of 8:1. This 8:1 figure is, of course, a theoretical figure, since friction of the internal winch parts and the line on the drum will reduce this ideal number somewhat. With small winches lacking internal gearing, the power ratio is simply the handle-to-drum radius ratio. *(Regrettably, "power ratio" seems to be an industry standard term that is used in place of the proper and accurate term, mechanical advantage. Students of physics know that winches cannot increase power. Force is increased at the expense of distance; power is lost to friction. "Engineering" was probably not consulted when this term was coined by "marketing." **–Ed.**)*

Winch sizes

The smallest of winches are "snubbing" winches. These winches do not have handles. Their advantage is that when a line is tensioned, the winch pawls prevent the drum from rotating, which would allow the line to run out again. Thus, they give the sailor time to prepare for the next pull.

The next size up are single-speed winches with handles. Since these winches have no gears, the mechanical advantage comes through the use of a

long winch handle and small drum.

The next higher category of winches includes those that employ gear ratios and multiple speeds. These winches can multiply a person's pull tremendously (a #40 winch gives a power ratio of approximately 40:1).

New materials

Since winches have been asked to perform under increasingly high load conditions, the internal gears, bearings, and lubrication have also been upgraded. In the late 1970s, Amoco developed a plastic named Torlon. When used as roller bearings inside a winch, Torlon could take great abuse with little lubrication. Harken immediately seized on this new product and began using it in their winches. To delay copycat use by the competition, however, they called their new roller bearings Duratron. We now see winches with Torlon bearings becoming standard equipment from nearly all winch manufacturers.

Lubrication

Since modern winches are so reliable, they tend to be the most neglected pieces of gear on board. But, as with everything mechanical, winches require a certain amount of care if they are to perform their jobs and have an extended life. This care also minimizes the possibility of an unexpected breakdown and dramatically reduces the physical requirements of the crew.

There are three basic levels of winch maintenance:

1. Apply a freshwater rinse at the end of a sailing day. When you rinse down the deck, direct the hose at the winches to wash away salt water, which degrades the winch grease and corrodes the metals. Stainless-steel, chromed, and anodized aluminum winch drums should be washed with a cleanser regularly and dried with a cloth. Occasionally, non-abrasive liquid cleaner can be used on stainless-steel and chromed winches. Naval jelly, sold by winch manufacturers, can be used on stainless-steel drums to remove tarnish and protect the surface. Never use polishes or abrasives to clean the drums of aluminum winches.

"Be careful during the disassembly that the drum bearings don't stick inside the drum and go overboard!"

2. The second level of maintenance is the "quick check," which takes 10 or 15 minutes per winch and should be done two or three times a season, or more often if the boat is in constant use. Remove the drum from the winch and remove the main bearings. With a rag moistened with solvent, wipe away grease on exposed surfaces and examine the winch for wear or damage. Take special note of the condition of the gear teeth and pawls.

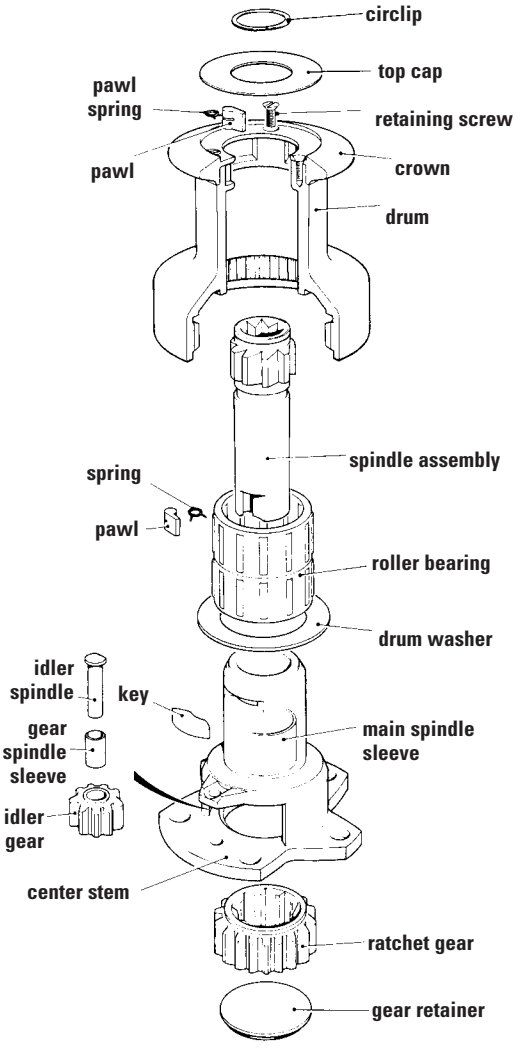


Illustration courtesy of Boatowner's Mechanical and Electrical Manual *by Nigel Calder, International Marine, publishers*

If there is any indication that the winch is dry, that the grease in the winch is gummed up and hard, or that dirt or sand has gotten inside, schedule a winch overhaul immediately.

3. A complete winch overhaul requires taking the winch down to its component parts, cleaning these parts, inspecting them for damage, replacing those damaged parts, relubricating, and reassembling. This should be done at least once a year, preferably at the end of the season. Although the first time you do this the procedure will take a while, due to unfamiliarity, for the typical winch aboard a 30- to 35-footer, it can be done in about 30 to 45 minutes.

Whenever you're doing a complete overhaul, especially for the first time, have the manufacturer's diagram of the exploded view of the winch, along with the manufacturer's service sheet, so you can follow the lubrication procedure and be certain the reassembly is correct. With this important diagram, you can identify any parts by number that need replacement.

Winch manufacturers supply service manuals for each of their winches, along with kits for routine servicing. These kits usually include drum screws, pawls, springs, and winch grease. Be careful during the disassembly that the drum bearings don't stick inside the drum and go overboard! Inspect the bearings, gears, and spindles for signs of wear or corrosion. Winches should be lubricated with winch grease, but avoid over-greasing. This can trap salt and water inside the winch. Check the pawls and springs for signs of wear and lubricate them with a light machine oil, such as 3-in-1, rather than grease. Do not grease plastic roller- or ball-bearings. Never grease the pawls or the ratchets they lock in; the pawl springs can't push the grease out of the way, and the winch will fail to lock against the load. Winch grease can be purchased at marine supply stores, through marine catalogs, and from winch manufacturers.

With simple and regular maintenance procedures, your winches can give you decades of reliable service.

Second thoughts

South Pacific cruisers think smaller is smarter

by Guy Stevens

As I write this article we are anchored in the lovely bay of Taahuku on the island of Hiva Oa, having just completed a 24-day passage from Mazatlan, Mexico. My boat is a wonderful Ericson 39 flush-decked sloop. The passage here was easy, even relaxing at times, in direct contrast to buying the boat, outfitting her, and building up the cruising kitty . . . all of which were very difficult. If I were to do it all over again I would do it differently. I would buy a much smaller boat.

There is a saying among yacht brokers and almost everyone who looks forward to going cruising. The saying is: "Buy the biggest boat you can afford." We whole-heartedly subscribed to this when we bought *Pneuma*. However, in hindsight (after cruising two years), instead of a 39-foot boat I would have selected something less than 32 feet.

When Melissa and I were looking for a sailboat in which to sail around the world, we saw many boats that we knew would take us anywhere . . . all beautiful 40-foot or larger yachts. They were way out of our price range. We knew that we needed a good older boat in solid condition.

We saw an ad in a Northwest regional boating magazine for a Seawind 31. I learned that it was not an Allied Seawind at all, but a locally built boat called a Seawind. That weekend we looked at the boat. It was in Bristol shape. The owner said he had recently purchased another boat, an Alajuela 38, and that he needed to sell the Seawind as soon as possible.

Crisping bread

We went back the next weekend to sail her. The owner spent most of the trip below in the galley crisping up bread for us to spread Brie on. We drank a bottle of wine and sailed along the Olympia waterfront. To say that the boat was a dream to sail might be an understatement. Every time I needed to make an adjustment to a sail, I would simply extend my hand, and there was the correct line. We brought her back into the dock and walked down to the owner's other boat.

The Alajuela was gorgeous inside with teak everywhere and all the fit and finish one could want. He gave us the Cook's tour and told us about the ample tankage and heavy displacement. The boat looked the part of the world cruiser, and we were impressed. We drank another bottle of wine and talked of his plans and ours. He spoke of buying the Alajuela and of trying to set a departure date for a world cruise. We spoke of our plans to buy a boat, live aboard, and head off when we had a big enough cruising kitty.

By the end of the evening, we were all discussing the amount of money that it took to go long-term cruising. He told us the price that he had just paid for the Alajuela and how many more years he was going to have to save to get away. I asked why he didn't consider taking the Seawind. "Not big enough, and she only holds 30 gallons of water and 30 gallons of diesel," he said.

Maintain her

As we were leaving he said, "I really can't afford two boats, and I would

With an extra five feet, Guy's Ericson 39, *Pneuma*, dwarfs *Kestrel*, an Islander 34, behind at the dock in Mazatlan (above). *Kestrel* is sailed by Jay Fraser and Leslie Fournier.

like to sell her to someone who will maintain her well; I would consider an offer less than $20,000." Melissa and I drove home talking about the Seawind. While we were sure we could live aboard the beautiful little boat, we worried that it would mean buying another boat before we left to go cruising. After all, the little boat was too small, wasn't it?

A year later we found and bought *Pneuma*, our Ericson 39. With some help from an unexpected windfall, it took us three years to pay off the boat and another two to build up a small cruising kitty. Our jobs paid well but were extremely frustrating and counter to our natural tendencies. The emotional toll of earning the money to pay for the boat and to put a little away for cruising was large. Even now the emotional issues created in those years haunt us.

When we arrived in Hiva Oa, we were greeted by crews of three boats that had left Mazatlan two weeks before we had. They were all in boats less than 30 feet long. All had wonderful passages, arriving in the Marquesas in about 30 days. We spoke at length, comparing passage notes as cruisers do. Their passages and the things that they encountered and had to deal with were very similar to ours. The wind was the same, the squalls had the same effects on the boats, and there were no differences in the problems adapting to watch schedules. The one difference seemed to be that when they had minor gear failures they had fixed them a lot more easily than we had fixed ours. Later in the week, a 24-foot boat came in. The sailor had come all the way from Denmark through the Panama Canal.

Everything possible

When most of us think of going cruising, we imagine 40- or 50-foot yachts fitted out with every possible piece of equipment. Bigger yachts can be more pretentious; they can speak of wealth and of place in society. But impressing people and going cruising are two different things.

"If I were to do it all over again . . . I would buy a much smaller boat."

We all think we are going to cruise forever. We picture ourselves out among the tropical islands with the wind in our hair and the surf sounds from the beach in our ears. Indeed there are people who continue cruising for all their days. But most cruises are three to five years in duration. When we think of the boat in terms of a three- to five-year commitment, are we looking for a posh floating condo or a nice sturdy vehicle to get us to exotic ports of call and places that few others have visited?

The bigger the boat, the more expensive it is to purchase. If your goal is to get out there and go cruising, then which boat is going to allow you to do it more quickly, the $150,000 45-footer or the smaller 27- to 32-footer that can be purchased for less than $30,000? By the time you have paid off the $150,000 boat, you could have been cruising in the $30,000 boat with a $120,000 cruising budget. Had we purchased the Seawind instead of the Ericson, we would have started cruising three years earlier than we did, with the same cruising kitty.

Have you ever noticed that the big boats spend more of their time tied to the dock than the little ones do? Look at the boats that are out on any weekend around where you live and sail. Are the majority 50-footers, or are there a lot more boats in the 25- to 35-foot range out on the water? There are a number of unavoidable reasons that the little boats are out sailing while the big boats are parked at the dock.

Heavier loads

It takes more effort to sail a big boat than it does to sail a little boat. The loads on the rigging are higher, and the strength needed to operate the boat is greater. Sails are heavier on the bigger boat and take more effort to move around and change. The anchor gear is heavier, necessitating specialized anchor windlasses and more time and effort when anchoring. It is often argued that on the bigger boat there is specialized gear to handle these higher loads. While this is true, each piece of equipment

***Tao*, a Cascade 29 shown here in the Sea of Cortez, was finished out and is sailed by Greg and Maria Grenzbach. They are now on their second long cruise.**

adds maintenance cost and time to the boat. A smaller boat needs less specialized equipment because less force is required to perform any specific function. This equates to less time needed for maintenance and less cost.

Melissa found it impossible to grind and tail at the same time when bringing in the genoa on our boat. In order to make sailing the boat safe, we felt we needed to purchase self-tailing winches at a cost of more than $2,000. But when sailing on a friend's 31-foot boat, Melissa never has a problem grinding and tailing.

Repairs and maintenance costs are less for smaller boats, often 20 percent of the cost of maintaining a bigger boat. Even a simple block for a 40-foot boat costs four times as much to replace as a block with the same function on a 30-footer. For the cost of replacing the genoa and mainsheets on a 40-foot boat, you could purchase the entire running rigging on a 29-foot boat.

"By the time you have paid off the $150,000 boat, you could have been cruising in the $30,000 boat with a $120,000 cruising budget."

My friends on a Vancouver 27 recently painted the bottom of their boat; it took less than a gallon of paint. It takes two gallons for the bottom of our 39-footer. Just in materials it cost me twice as much to paint mine. Friends on a 45-footer need three gallons to paint the bottom of theirs. One 7/16-inch Sta-Set X halyard on our boat costs roughly $120. A 5/16-inch halyard of Sta-Set X for the average 27-foot boat costs $45.

Specialized tools

In addition, repairs to bigger boats require bigger and more specialized tools that may not be available in small ports or at sea. The tools and spare parts for the larger boat are more expensive and larger to stow, taking up more storage space and costing more money that could be invested in the cruising kitty instead. It also takes more time to repair the larger gear than it does to repair the smaller gear. The time you save on maintenance could be time spent lazing on the beaches of paradise.

Insurance costs are a significant part of cruising for people with larger boats. A boat costing $200,000 represents a substantial amount of most people's net worth, so to feel comfortable cruising with such an expensive boat to far-off, unfamiliar places, insurance seems to be a necessity. The smaller boat can be a much smaller investment, so an owner is less likely to feel the need to insure it. Another part of the insurance game is that if you need and purchase insurance, the insurance company can demand that you have more crew, or that you alter your cruising itinerary to fit the insurance company's preferred risk profiles.

When we looked at boats, we were concerned about the tankage, comfort in a seaway, and living space. These were necessities for us, and we did not believe they could be met by the smaller boats we looked at. After cruising for more than 10,000 miles in the last two years, our opinion on each of these perceived shortcomings has changed.

Smaller boats often have tankage of about 35 gallons of water and a similar amount of fuel. With conservation, 35 gallons of water can suffice to make the longest passages of a circumnavigation. Every place that we have been so far while cruising has had potable water available.

Add a watermaker

Carrying water to and from the boat can be a time-consuming, labor-intensive task, however. Knowing also that conservation can be a difficult skill to acquire by those of us who are used to unlimited amounts of water coming out of a city-supplied tap, I would recommend the addition of a watermaker to the boat (see *Good Old Boat*, January 2003). Adding a watermaker to the smaller boat, one could cruise indefinitely without fear of running out of water or the need to conserve as much on water usage. A small watermaker with a capacity of three to five gallons an hour would easily meet the cruising needs of two people, with less than a couple of hours run time a day.

Fuel tankage is often limited to 35 gallons of internal tankage and perhaps an additional 12 or 18 gallons in jerry jugs lashed on deck or in the cockpit. Let's assume that the smaller boat has a usable fuel capacity of 42 gallons. Smaller boats have smaller engines, which in turn use less fuel. Since it is easier to hoist and trim sails on a smaller boat than on a larger boat, smaller boats will sail

even short distances between anchorages while bigger boats will choose to motor. This ability to sail more easily means that the smaller boats sail more often and use less fuel. Smaller boats with engines that burn less than half a gallon of diesel per hour with a cruising speed under power of about 4 knots would be able to motor about 300 miles with a conservative margin of safety. This is more than enough range to get safely in and out of harbor and to motor through periods of light air on most passages.

Even comfort in a seaway is more of a product of the configuration of the boat's underbody and its interior layout than its size. Rolling is a product of the shape of the underbody of the boat, not the size of the boat. Round bottoms with shallow keels tend to roll more than flatter bottoms with deeper keels. There are boats of all sizes that roll badly and boats of all sizes that have comfortable motions in a seaway; smaller boats can be as comfortable as larger boats.

Easier to move

By the very fact that they are smaller, most small boats are easier to move about in while in a seaway. In smaller boats you have less distance to travel to complete a given task, more handholds are available, and should you fall or be thrown about the cabin, you have a shorter distance to build up momentum. Smaller boats also allow you to prop or wedge yourself into places more easily than larger boats do.

We have spent time on a number of smaller boats and have not found the smaller space available for living to be as much of an issue as we had thought. Most of the time below is spent either sitting or working in the galley. The need for comfortable seats and standing headroom in the galley does not eliminate the smaller cruising boat as an option; there are many that fit these criteria for most of us. Entertaining in most cruising situations occurs in the cockpit, not in the main cabin. Having a comfortable cockpit, with well-thought-out cushions and a small cockpit table will take care of most entertaining requirements.

"Even comfort in a seaway is more of a product of the configuration of the boat's underbody and its interior layout than its size."

The reasons so far that I have listed have focused on bluewater cruising. But coastal cruising offers even more reasons. Smaller boats are cheaper to dock than larger boats; they can anchor in shallower water and can sneak up smaller rivers to anchor closer to sites of interest or activities.

Perhaps the best reason for a smaller boat may be that you already own one. The boat you own is almost always a better boat to go cruising in than the one you are dreaming of buying. The boat you own now can be made ready to go and get you out there cruising a lot sooner than the lovely 63-footer down the dock that you have been eyeing for the past year. Smaller often means going cruising sooner and staying out longer. This means going to more places, seeing more things, and tasting more of the cruising life.

Recommended Reading

- *Voyaging on a Small Income*, by Annie Hill.
  Anne and her husband built a small plywood boat and went long-term and long-distance cruising. Truly inspiring, they simplified their lives and lived their dream. Her book contains some wonderful ideas for staying on budget and getting out cruising.

- *Sensible Cruising, The Thoreau Approach*, by Don Casey and Lew Hackler.
  A great book about thinking and starting a cruise in a variety of small craft.

- *Your Money or Your Life*, by Joe Dominguez.
  A wonderful book about how to manage your money and change your lifestyle to accomplish whatever your dreams are, as soon as you can. There are no investment strategies in this book and nothing about the stock market or get-rich schemes, just solid advice and a full toolbox of lifestyle and financial evaluation tools.

***Yehudi*, a Vancouver 28, is sailed by Mike Neufield and Sarah Carson, who departed Victoria, British Columbia, in 1999 and were in Auckland, New Zealand, in mid-2002.**

Searching *for* quality

A famous designer tells how to discern real quality in a yacht

by Ted Brewer

Those who have read that fascinating book *Zen and The Art of Motorcycle Maintenance* will be aware of the author's interminable search for the meaning of the word "quality." My old Webster's dictionary lays it on the line quite nicely as far as I'm concerned: "quality is the degree of excellence which a thing possesses." Now you can look up excellence!

I offer one man's opinion of what constitutes quality in a yacht. The quality I'm talking about is not what many think of as "gold platers." I've never believed that gold plating adds much quality to anything from a cheap brass watch to a 100-foot yacht. In yacht construction, the real "gold" is evident in the materials, the hardware, the equipment, the workmanship, and the care that have gone into her original construction.

When I speak of equipment, I'm concerned with the initial gear the builder used, not the after-market radios, dinghies, depth sounders, wind indicators, radar units, and other relatively short-lived accoutrements that owners add over the years. If the yacht is more than 10 years old, much of that apparatus will be suspect, if not outright junk, and has little or no bearing on the vessel's value.

Quality begins with the basic construction and that begins with materials and workmanship. In wooden yachts built in North America, that typically meant an oak backbone and frames, Honduras mahogany planking, and teak decks, all bronze fastened. The table on Page 31 gives Lloyd's ratings of other native and foreign woods that you may find in yachts built here and elsewhere, and it bears study if you are looking for a quality wooden yacht, new or used.

Strength, too

Of course, the finest woods will not ensure quality unless the various parts of the yacht are adequately strong for the work at hand. This can be assured if the yacht has been classed by Lloyd's, The American Bureau of Shipping, or one of the European classification societies such as Norske Veritas. Where this is not the case, the buyer can check with Nevins or Herreshoff's Rules (as laid out in *Skene's Elements of Yacht Design* by Francis Kinney) to help ascertain the suitability of the scantlings used, but in all likelihood this will require the assistance of a marine surveyor to determine if the vessel is adequately strong.

Even first-class materials and stout timbers will not produce a quality yacht without true craftsmanship. One sign of excellence in wooden yacht construction is that the boat was built by a first-class yard. In the old days, that meant Herreshoff, Nevins, Luders, Paul Luke, Derektor, Crocker, and similar yards. Overseas yards included Berthon Boat, Abeking and Rasmussen, Plym, Fife, McGruer, and so on.

Fortunately, in the past 30 to 40 years, there has been a substantial resurgence of interest in wooden yachts, and this has encouraged the establishment of many small high-quality builders and yards. New and respected names include Brooklin Boat Yard, Covey Island Boatworks, Legendary Yachts, and Bent Jesperson. These and others are highly capable of producing fine new boats from the plans of good old boats.

Increasing thickness

In the early days of fiberglass there was a crude rule of thumb for the thickness of the typical solid fiberglass-reinforced plastic (FRP) hull supported by taped-in bulkheads and furniture. Basically, the hull thickness was to be one-thousandth of the length of the boat. So if the boat was 31 feet 3 inches (375 inches) long, the hull should be 0.375 inch (⅜ inch) thick. It might be a tad thinner or thicker, but that was the general rule for a boat built of the typical combination of alternating layers of woven roving and mat.

Often, the topsides were a bit lighter and the bottom a bit heavier, with further thickness increase down the sides of the fin to a "keel"

laminate of ½- to 1-inch thick or more running from stemhead to transom. For obvious reasons there should also be thickening of the laminate at the mast step and chainplates. This often extends from sheer to sheer on a well-built yacht, both on the hull and under the deck. A few older boats, such as the U.S. Naval Academy yawls, were laminated entirely from woven roving. A number of cheapies were built completely of the weaker mat but, fortunately, most of the latter have been scrapped or abandoned over the years.

Many builders use a core of rigid plastic foam (such as Airex) or edge-grain balsa between the inner and outer glass laminates of the hull. In effect, this makes an I-beam out of the structure, adding great rigidity and strength. I can testify to one 42-foot ketch that hit the rocks at 40 mph! Her hull was cored above the grid. She suffered minimal, and readily repairable, damage with only minor penetration of the inner laminate. Incidentally, "40 mph" is not a misprint; the trailer tipped over while she was being towed cross-country!

Whether solid or cored, the result is a good yacht if the laminate and the workmanship are up to the job. Indeed, one of the finest yacht builders in the United States preferred a solid FRP hull to a cored hull. A test for quality in construction is simply to stand back and carefully look at the boat. Ripples in the gleaming topsides usually mean carelessness in the manufacture of the original mold. This may carry over into the boat. Hard vertical ridges can indicate a poorly fitted bulkhead or chainplate knees, a too-thin hull laminate, or simply bad laminating.

Increased stiffness

The decks, even in good old boats, were usually cored with edge-grain balsa to increase their stiffness. Some Asian yards, however, used the balsa on the flat, and this can result in rot spreading if water penetrates the outer laminate. A few builders prefer waterproof-glued plywood, which has the advantage that you can bolt down hardware anywhere, but it *is* heavier. With balsa-cored decks it's important to have a large backing plate below all fittings to spread the load and reduce the chance of crushing the core. Every deck fitting must be set in good quality sealant. The careful builder will use resin to seal the edges of any holes cut or drilled through the laminate, or at least dip the bolts in resin before they are pushed home to keep water from getting at the edges of raw laminate or balsa core.

"Quality begins with the basic construction and that begins with materials and workmanship."

The hull-to-deck joint is a weak spot on many FRP boats, and the best quality yachts will have the joint well-seated on a wide flange, set in 3M 5200 sealant or its equal with through-bolts fitted every 6 inches or so. A few top builders even fiberglass tape over the joint after sealing and bolting. That is quality and ensures a strong, leak-free joint. Check carefully on older boats for softness in the deck itself due to core rot and for weakness of the overall structure by jumping up and down. Also give a good pull on the lifeline stanchions. They will feel rigid on a quality hull with little movement at the deck or in the tubing. No lifelines at all are preferable to inadequate ones. If the stanchions flex to excess, there is a chance they have inadequate or no backing plates or that the deck/hull joint itself is weak.

Buell Hollister's Hinckley Bermuda 40, at right and facing page, is an example of quality built in by the manufacturer.

Not true quality

Many sailors love the look and the footing given by a teak deck but, in my opinion, too many of the teak decks are simply "gold plating" and not true quality. Too often the teak is very thin, and the plugs covering the fastening heads are even thinner. These soon start popping out to reveal the screw heads, which are usually stainless steel rather than bronze. Water eventually gets into the structure, whether it is a plywood subdeck or the balsa core in an FRP laminate, and then you have the makings of serious trouble with corroding screws and rot.

A small but significant sign of quality in workmanship is the proper fit of hardware. The installation of the portlights may provide a clue. Too many yachts have shiny brass or stainless-steel rings around the outside of their opening portlights and windows. In the good old days, this was a sign of sloppy workmanship. Today it can mean that the workman installing the port did not have the skill to make a close fit. The result was a gap between the metal casting of the port and the wood or fiberglass cabin side, which was then hidden by a cheesy metal trim ring.

A proper fit can be made, even in an FRP yacht. I insisted on proper installation of the oval bronze ports on my Nimble 30, and they were — a tight fit and no ugly trim rings! Unfortunately, the metal trim ring seems to be widely accepted today; so many buyers say "lovely" when they should think "hiding bad workmanship!" However, many modern ports are designed to clamp the fiberglass cabin sides, and there is no way to install them without trim rings. In any case, the slots in the heads of the machine screws should all be aligned fore and aft or, in a wood yacht, countersunk and plugged so as to be invisible. That is quality.

Varnished brightwork

The interior of the yacht will also express the general quality of workmanship. Finely varnished brightwork and slick paintwork are an indication, of course, but can also blind a buyer to other faults and omissions. A real teak-and-holly cabin sole (not thin plywood teak and holly) is a good sign, as are well-rounded corners on the furniture, a dust trap on the cabin sole, drawers that open and close smoothly and stay closed in heavy seas, well-ventilated locker doors, strong fiddles on locker tops, a decent trash bin, well-insulated icebox or fridge, and, of course, quality brass, bronze, or stainless-steel hardware throughout. A small magnet is a handy tool for checking that hardware is not simply plated steel.

"In yacht construction, the real 'gold' is evident in the materials, the hardware, the equipment, the workmanship, and the care that have gone into her original construction."

Access to the hull is vital for maintenance, so the fine yacht will have removable sole panels and berth bottoms. These panels will be locked in place so they can be opened quickly in an emergency but cannot go flying about, spilling their contents in case of a knockdown. Removable overhead panels and furniture will give access to the wiring and permit the inspection, tightening, and fitting of deck hardware. Up on deck, the quality yacht will have generous Dorade vents, and the thoughtful builder will fit shut-offs below so the vents can be closed in cool weather.

Both good and bad builders obtain their engines, machinery, controls, and other major components from the same manufacturers, so there is little to choose between them in this regard. The difference lies in the quality of care that goes into the installation of these components. Unfortunately, it is not always possible to discern the strength of engine beds, the adequacy of stuffing box installation, or the security of tank mountings in a quick inspection. But a sailor can tell a lot by simply checking the neatness of the engine room, the lack of which is a sure sign of careless installation and poor workmanship.

Neat wiring

Quality will show in the general organization of the machinery space; in the installation of wiring runs and piping; in the cabling and color coding of wiring; in the labeling of wiring, piping, valves, and seacocks; and in the proper support of piping and wiring at regular intervals, with attention to chafe prevention. Is there a wooden plug alongside each seacock? The engine and stuffing box should be readily accessible for maintenance, and the engine space should be well insulated for sound and well ventilated. A blower is imperative with a gasoline engine, of course, but is also

Photo by Betty Brewer

***Irene*, the last Concordia yawl built, on display at a wooden boat show in Victoria, British Columbia.**

useful on a diesel installation to rid the engine space of excess heat after the engine is shut down. Large-volume manual bilge pumps, such as Whale or Edson, are a reassuring sign that the builder cares, even when a husky electric pump is fitted.

One sign of quality is a heavy-duty battery box with a ventilated cover and tiedowns strong enough to ensure that the batteries will still be in place after a 180-degree roll. The batteries must also be accessible for maintenance without requiring the skipper to be a midget or contortionist. The tanks should withstand the same 180-degree roll, but that is not always easy to judge. Obviously the best engine in the world is worthless unless it will start, so heavy-duty fuel filters are a must, and the fuel fills and vents must be such that water cannot enter the tanks. A very nice touch on larger craft is dual filters set up so one can be changed while the engine continues to run on the other. A simple method of checking the tank level — tank gauge or dipstick — is essential to avoid that letdown feeling when the engine tries to run on air.

"Many sailors love the look and the footing given by a teak deck but, in my opinion, too many of the teak decks are simply 'gold plating' and not true quality."

Lloyds' guidance on the selection of timbers for constructional members

Timber Species	Average Weight Air-dried		Keel & False Keel	Deadwood	Stem	Sternpost	Bilge & Chine Stringer	Beam Shelf, Stringer & Clamp	Floors	Frames		Hull Planking		Deck Planking	Beams & Carlings	Knees		Covering Boards, Kingplanks & Margins	Natural Durability	Resistance to Impregnation	Ease of Gluing
	Lb per Cubic Foot	Kg per Cubic Meter								Grown	Bentwood	Below Waterline	Above Waterline			Hanging	Lodging				
Afrormosia	43	690	B	B	B	B			B	B					B	B	B	B	V	E	S
Afzelia 51	815	B	B		B						B	B						V	E	S	
Agba 32	515								B**		C	B	B					D	R	S	
Cedar, Western red	24	385												C					D	R	S
Douglas fir	33	530					C	C				C	C	B	B				M	R	S
Elm, English	34	545	B	B	B	B													N	M	S
Elm, Rock	44	705					B	B			A*					C	C		N	R	S
Elm, Wych	42	670	B	B	B	B													N	R	S
Guarea 36	580									B								D	E	S	
Gurjun 46	735	C	C	C	C			C	C		B	C						M	R	S	
Ipil 45	720								B	A								M	R	S	
Iroko 40	640						B	A	A		A	A	A				A	V	E	S	
Kapur 46	735	B	B	B	B	B	B	B	B		B	B	B	B	B	B	B	V	E	S	
Keruing 46	735	C	C	C	C			C	C		B	C						M	R	S	
Keyaki 39	625	B	B	B	B			B	B						B	B		D	R	S	
Larch 35	560					B	B		B**		B	C		B	B	B		M	R	S	
Mahogany, African	33	530	C	C	C	C	C	C	C	B**		C	B	B	B**			C	M	E	S
Mahogany, Honduras	34	545	B	B	B	B			B			B	B		B**			B	D	E	S
Makore 39	625	B	B	B	B			B	B					B**				V	E	S	
Oak, American white	48	770	B	B	B	B	B	B	B	B*	A*	B	B		B*	B	A	B	D	E	S
Oak, English	45	720	B	B	B	B		B	B	B*	A*	B			B*	B	A	B	D	E	S
Opepe 46	735	B	B	B	B			C			C	C	B				C	V	M	S	
Pine, Pitch	44	705						B				A	B	B	B				M	M	V
Redwood, European	32	515					C	C				C	C	C					N	M	S
Robinia 45	720	B	B	B	B			B	B	B								D	E	S	
Sapele 39	625	C	C	C	C	C	C		C		C	C						M	R	S	
Spruce, Sitka	28	450					C	C				C	C	C	C*				N	R	G
Teak 41	655	A	A	A	A	A	A	A	A		A	A	A	A	A	A	A	V	E	S	
Utile 41	655										A	A	A					D	E	S	
Yacal 62	990	B	B	B	B	B	B	B	B						B	B		V	E	S	
Yang 46	735	C	C	C	C			C	C		B	C						M	R	S	

General Scoring: A-Best choice; **D**-Worst choice.
Durability: P-Perishable; **N**-Non-durable; **M**-Moderately durable; **D**-Durable; **V**-Very durable.
Ease of Impregnating with Preservative: P-Permeable; **MR**-Moderately resistant; **R**-Resistant.
Ease of Gluing: G-Good; **S**-Satisfactory; **V**-Variable; **D**-Difficult.
For beams and frames, timbers marked * are suitable in both the natural and laminated form. Those marked ** are only suitable when laminated.

Tapered spars

Quality in the rig begins with the mast. The finest yachts will have their spars properly tapered above the spreaders to reduce weight aloft. Chainplates will be fitted with toggles, and headstays and forestays will have toggles both top and bottom. The upper toggle is too often omitted, unfortunately, and this can promote stress in the masthead fitting over the years. Rigging end-fittings, if swagings, will not show banana-like bends or cracks if the rigger is a careful workman. However, most sailors will prefer renewable and less problem-prone Sta-Lok or similar fittings, particularly on the lower ends of the rigging.

If the halyards are inside the mast, the builder should ensure that they can be inspected and replaced at sea. Otherwise, halyards are better outside where they can be checked and maintained. I simply cannot understand the reason for the modern fad of internal halyards on cruising yachts. Seeing your spinnaker go over the bow while hundreds of miles offshore is not pretty, as I can testify from experience.

Proper metals are also a sign of the quality of materials used in wood and FRP yachts. Aluminum bronze (91 percent copper, 7 percent aluminum, 2 percent iron) and silicon bronze (96 percent copper, 3 percent silicon, 1 percent manganese) are both highly acceptable marine metals. The latter is the choice for fastenings in wood yachts as well as for propeller and rudder shafting in wood and FRP vessels. Aluminum bronze is excellent for weldments such as hull and deck strapping, mast steps, engine beds, chainplates, and floors. Manganese bronze (58.5 percent copper, 39.25 percent zinc, 1 percent iron, 1 percent tin, .25 percent manganese) is used for propeller hubs and blades, but commercial brass (65 percent copper, 35 percent zinc) should never be used under water. Its only function on a yacht is for nameplates, trim, and screw fastenings where corrosion resistance and strength are not important, such as on internal furnishings.

Joined athwartships

"Floors" in a wood or metal yacht are the athwartship parts that join the heels of the frames and connect them to the keel. They can be wood or metal in a wooden yacht and, in a metal yacht, they are of the same material as the frames, of course. In an FRP yacht, the floors are usually of fiberglass or fiberglass over plywood, bonded to the hull. Many modern FRP yachts will have a grid system incorporating floors, mast step, and even tanks. This is glass taped to the hull to add the necessary strength. Unfortunately, a few fiberglass yachts are built without floors, and this can be taken as a lack of strength and quality. Generally, while there will be a floor on every frame in a wood or metal yacht, the rule for an FRP vessel is that there should be a minimum of three floors in way of the ballast fin or keel, and additional floors should be fitted to spread the stress and support the hull below mast steps and engine beds.

"A small but significant sign of quality in workmanship is the proper fit of hardware."

Of course, bronze shafting, seacocks, and chainplates should never be used on a steel or aluminum hull, as corrosion will begin the instant she is launched and will progress rapidly. The only answer is stainless-steel alloys such as Aquamet 17 for shafting and type 316 or 316-L stainless steel for seacocks and other parts. The problem of mixing copper-based and aluminum metals was demonstrated the hard way when, back about 1919, Capt. Nat Herreshoff built a large racing yacht with aluminum plating on bronze frames. She was scrap when she was barely a year old!

A point to note is that brass screws and bolts should not be used where they are subject to the elements, even on deck. When commercial brass is exposed to a salty atmosphere, the zinc is eaten away, leaving only weak copper, which quickly fails. That was a problem on a couple of the boats I've owned. Nuts too often simply broke off the corroded brass bolt, which then had to be replaced with a bronze fastening.

Needs oxygen

Definitely, for wood or FRP yachts, bronze is the metal of quality. The problem with stainless steel is that it depends on oxygen to repair itself by creating an oxide film, and it is therefore subject to crevice corrosion when oxygen is not present. This crevice corrosion manifests itself in stainless-steel keel bolts, tank seams, wire end swagings, and similar parts that are continually wet with a thin film of water. The stainless steel leaches the oxygen out of the water and then starts to corrode when there is no replacement water with its oxygen source to replace the old. There is, undoubtedly, a better way to phrase this but the reader may understand when I say that I have seen crevice corrosion failures of stainless steel in keel bolts, chainplates, freshwater tank seams, rigging swagings, and in the shaft underneath a tightly fitting bronze propeller hub.

The problem is worsened when stainless steel is used with a metal superior in the galvanic scale, such as lead or bronze. In my opinion, stainless steel should not be used for fastenings in wood yachts, for tanks, or keel bolts in lead keels. A point to note is that the U.S. Coast Guard does not approve of stainless-steel fuel tanks, due to corrosion problems. I've seen a costly stainless-steel engine exhaust system pinholed by diesel exhaust within a year. Galvanized iron bolts are superior to stainless steel in an iron ballast keel, again due to problems of crevice corrosion. Aquamet 17, a form of stainless steel used for propeller shafting, is quite acceptable but needs the protection of proper zinc anodes for reliable service. It took many years for designers and builders to discover the problems of stainless steel, so you will not find many older FRP boats with bronze keel bolts, chainplates, and so on. At least you will know where to look for potential problems.

The foregoing is but a short list. I'm certain many readers will have their own favorite signs that are indicative of quality and craftsmanship. I presume that most of our readers will be more concerned with used boats rather than new ones when they get that crazy itch to move upward a couple of feet in size. So I will say this just once: do not let your heart rule your head! Do as I say, not as I've done (to my regret): get a qualified marine surveyor to check out your dream ship *after* you have checked it for quality and *before* you sign the check.

A dream come true

The pleasures (and perils) of prairie trailer sailing

by Maureen Bennie

WE HAPPENED TO SEE HER PARKED at the Glenmore Reservoir. A "For Sale" sign hung on her trailer, and the price was right. We wanted her from the moment we saw her — a 1987 Catalina 22. My husband, Ron, and I did not have much sailing experience, but we knew this was the boat for us. Our sailing dream was to cruise leisurely around our local reservoir and take overnight trips to out-of-the-way places.

Time Off (at $13,045 Canadian) fit our requirements. We needed a boat less than 26 feet because of a length restriction at Glenmore Reservoir; our van couldn't tow anything more than 3,500 pounds; and the boat had to be priced below $15,000. People thought we were crazy to be considering such a purchase. A boat is a luxury item; we had two children under the age of four, and there are many expenses involved in raising our young family. But owning a sailboat had been our dream since we settled in Calgary, Alberta, 12 years earlier. Despite the lack of lakes and a six-month winter, we were not deterred from buying *Time Off* in May 2000.

> *"People thought we were crazy to be considering such a purchase . . . But owning a sailboat had been our dream since we settled in Calgary, Alberta."*

Ron and I rented a mooring site on the reservoir for convenience. We live five minutes from the reservoir and wanted to avoid the headache of launching the boat every time we sailed. We love mooring; it takes 10 minutes to get ready to sail, and there is no waiting at the launching ramp. Glenmore has a "no anchoring" policy, so if we want to sit around on the boat on a calm day or eat a meal, the mooring site provides privacy. We love sailing at our local reservoir. The mountain backdrop provides beautiful scenery.

Family outings

Of course, there have been a few perils too. One of our main reasons for getting the boat was to use it for family outings. Our children have autism. One of the characteristics of autism is the need for routine and familiar surroundings. We thought *Time Off* would provide that for the children. The reality was much different. At two and four, both children were too young to deal

***Time Off*, a 1987 Catalina 22, offers time off for sailors Ron and Maureen Bennie, whose autistic children can make parenting a challenge.**

with all the changes and challenges. Wearing life jackets, an unstable boat, and unpredictable movements are challenges we will have to overcome with time. After several attempts at making them into sailors, we gave up temporarily. Both children loved being near the water so we decided that in time they would love sailing too. In the meantime, *Time Off* became just that: time off for Ron and me.

Our most challenging times have been in trailering her to Ghost Lake, 37 miles from Calgary. This glacier-fed lake is close to Banff in the Canadian Rockies and offers breathtaking scenery, protected inlets, abundant wildlife, and solitude. However, this can be accompanied by unpredictable high winds. One summer day there, the winds reached 64 miles an hour and destroyed several boats.

One trip out there was riddled with mishaps: Ron fell from a ladder, we lost our Sun Shower bag in the lake, there was a bad electrical storm, and our outboard motor refused to start. This cut our trip short by a day and required a magnificent docking job under sail in very high winds with many spectators. Then, while we were driving back to Calgary, one of the wheel bearings lost grease. By the time we reached Calgary, the wheel was radiating heat and emitting a strong burning smell. Ron was so frustrated after that trip that he wanted to sell the boat. In times like this you need a short memory. These events tell you which skills you need to acquire to prevent similar mishaps from occurring next time.

Want to sell?

Not too long after that we received a call from someone in Vancouver who saw our boat moored at the Glenmore. He left a message asking if we wanted to sell *Time Off*. We considered it seriously. The kids weren't sailing yet; we didn't sail as much as we had hoped to; and we still had payments to make. Maybe we weren't in the right place at the right time to be sailboat owners. Even though our pleasurable times outweighed the frustrating ones, it was time to re-examine why we had this boat.

With selling in mind, we took our last sail of the season with a friend of ours in mid-October. It was windy, but sunny. The mountains were clear in the background, and the trees were the most beautiful golden color. We had a wonderful sail, lots of laughs, and spent some time at the end just relaxing and conversing on the mooring. Ron and I looked at each other and said, "No way are we selling this boat. We'd be miserable without her." No sooner had we said that, gotten into the dinghy, and begun rowing to shore, than Ron spotted a muskrat sitting on the stern-mounted transducer for our depth sounder, gnawing away at the wire. All we could do was laugh and say, "I wonder where we can find replacement wire?"

"Even though our pleasurable times outweighed the frustrating ones, it was time to re-examine why we had this boat."

There have been highs and lows to owning *Time Off*, but I can honestly say the lows have been few. Maintaining the boat has been a pleasure for Ron. We've even begun to time ourselves to see how much more efficient we're becoming in getting the boat off the water and unstepping the mast. We are constantly reading to improve our knowledge of sailing, maintenance, and safety.

We're entering our fourth sailing season this May and have plans to get the kids on board again now that they are older. Marc is 6 and Julia is 4. Marc has started to handle some short, gentle sailing around the Glenmore Reservoir and enjoyed it last season. We took his therapist with us to help with the land-to-water transition. We plan on taking Julia out this year but know she'll be a bit more difficult, as she is our daredevil. Safe boating will not be a top priority on her list.

Ron and I are planning at least two out-of-town boating trips on our own this summer to restore our sanity in our challenging parenting situation. The children continue to struggle with language, communication, and behavior. We hope sailing will become an enjoyable activity for them as they continue to develop.

Of course we'll renew our mooring site at the Glenmore Reservoir and be ready to sail at a moment's notice. Was the dream of owning *Time Off* all that we thought it would be? Yes — and more.

Julia and Marc, above, in the comfortable surroundings of home. Maureen, at right, in the comfortable and scenic surroundings she enjoys.

All about Yves

Meet the sailing inventor who circumnavigated in an Alberg 30

by Karen Larson

Yves shows his windvane at the Oakland Sail Expo.

Words fail the writer who would describe Yves Gélinas. Maverick? Free spirit? Innovator? Genius? Adventurer? Dreamer? One who achieves his dreams? He deserves all of these appellations and more.

Born in Montreal, Quebec, Yves started his professional career there as an actor and filmmaker. But he closed the book on that career with a dramatic last chapter: he set out to sail around the world solo and nonstop while starring in his own film about the trip.

Why would anyone choose to sail around the world without stopping to smell the roses along the way? Yves says he needed sponsorship to make the trip, and the only way to interest potential sponsors was by doing something a bit daring. "No one would have given a cent for a conventional trade-wind circumnavigation," he points out.

In making this voyage, Yves says he was attempting to succeed at an art form combining many disciplines. "This was my performance," he notes, "... completing a circumnavigation, writing a book [published in French only so far], making the film [*With Jean-du-Sud Around the World* — a marvelous piece of work available for some time and now also on DVD and videotape], making the windvane, and sailing the boat." His film won many awards even though the trip was not concluded as Yves had hoped. His Alberg 30, *Jean-du-Sud*, was rolled and dismasted in the Pacific Ocean, cutting the circumnavigation into two legs.

> *"Yves says he needed sponsorship to make the trip, and the only way to interest potential sponsors was by doing something a bit daring."*

After repairing the mast (by himself and in the middle of nowhere, it should be noted) Yves concluded his trip — a total of 282 sailing days — and completed his film. The year was 1983. But his interests were no longer in filmmaking. This man was a sailor, an interest that led to a new career as the manufacturer and distributor of an integrated self-steering windvane of his own design — the one that had taken him around the world with no hand steering once he was outside of a harbor. Because of his own experience with it, Yves guarantees his Cape Horn Windvane for 28,000 miles or a circumnavigation. Whichever comes first.

Natural aptitude

No one sails without encountering breakdowns. This actor-turned-sailor was fortunate to have a natural

mechanical aptitude to make up for a lack of formal training. He had made it his mission first to prepare an Alberg 30 for a circumnavigation, then to invent the windvane to steer her, and finally to repair all breakdowns while under way, including the mast and water generator. About that generator: using the tools and materials at hand while at sea, he simply fabricated a new propeller. Wouldn't anyone?

His boat preparations involved making *Jean-du-Sud* nearly unsinkable by creating five watertight compartments using the four existing bulkheads. He reinforced the portlights with Lexan windows bolted on outside. He strengthened the cabintop. He removed the Atomic 4 and gas tank to make room for storage. (Years later, Yves still sails this boat and has since added a 9.9-hp outboard.) He built a new mast. He beefed up the rigging. He created weathercloths that would break loose if the boat were pooped by large seas, and he developed an innovative dodger that could withstand a knockdown or onslaught by a heavy sea without being crushed.

Referring to his windvane design, Yves says, "I had been thinking of the design of a wind-operated self-steering system for as long as I had been cruising under sail: I have always considered that there were more interesting things to do than be stuck at the helm." Yves created his self-steering windvane since he lacked confidence in the windvanes that were available at the time.

Third generation

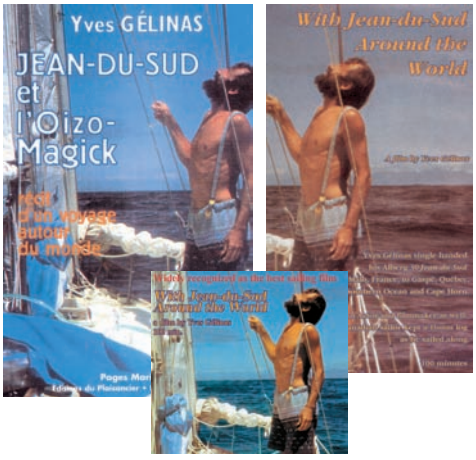
In looking back more than a decade, he says, "I introduced the third generation in self-steering." He credits Blondie Hasler with developing the first-generation vane, which worked on the servo-pendulum concept. But, Yves says, "A feathering windvane could never produce an impulsion greater than the course deviation." Like the first version, the next innovation was also created for a single-hander sailing in the OSTAR. The newer design was used by Eric Tabarly's *Pen Duick IV*. This one was created by French engineer Marcel Gianoli, who found that if the axis of the windvane were brought close to horizontal (rather than vertical), the impulse produced for a given course deviation would be much greater,

"I have always considered that there were more interesting things to do than be stuck at the helm."

allowing a smaller vane to steer with greater precision.

"The system I designed for *Jean-du-Sud* integrates the self-steering into the boat *[Note the Cape Horn's much smaller support structure. –**Ed.**]*. It also integrates all steering modes: hand, wind, and autopilot. Third generation," Yves says. "This was the third vane I had designed and built for my own use. This prototype kept course upwind or downwind, at Force 2 or Force 10, under spinnaker, under trysail, through Cape Horn swells, even under jury rig after I was capsized and dismasted."

It was Yves' fervent hope that the mast he had built in St. Malo, France, before beginning his voyage would be strong enough to withstand a rollover. He sold his Alberg 30 mast to help pay for a new and stronger mast extrusion. He created a double-spreader rig, fabricating the fittings himself and replacing ¼-inch rigging with 7-mm wire. "It was bulletproof," he says. "But later I learned I had made one mistake." At the time of the rollover



Yves' book, above left, is available only in French. The success of the video, above right, led to the recent launch of a DVD version, center, of Yves' award-winning movie. Packaged with the DVD is a free CD with additional photos and text about his voyage. For more information, contact him at 800-227-4676.

two lower shroud chainplates pulled out of the deck, he says. They should have been more strongly attached.

Dry bilge

Of the rollover, Yves says, "The boat is small. I couldn't fall far." In his tumble in the cabin, Yves accidentally hit the bilge-pump switch, turning it on. "By the time I looked, the bilge was dry," he recalls. But the view that awaited him outside the cabin was another matter. "I saw the gooseneck, but I couldn't believe the mast was broken. The break was at the first spreaders. The shrouds were cutting the rail. I didn't want to jettison this mast. I knew every rivet by name, and I couldn't afford another one. Eventually I had to dive to tie a line around the mast and winch it up."

The nearest land was 150 miles to windward, naturally. Yves made it there under jury rig and hauled his boat out. He got a piece of the original mast extrusion from the boatyard in St. Malo and created an inner sleeve with which to splice the two sections together.

Fast forward to 1989. Yves had become a Canadian national hero upon completion of his voyage. Halfway through the trip he was something of a "cause célèbre" when he went missing for many days following the dismasting. Without a mast, he lost communication for long enough to make headlines from one end of Canada to the other.

He had no money, but he did have a product he had tested and believed in strongly. "I started Cape Horn without any money and with just the tools I had on the boat," he says. "At first I had the work subcontracted, and I would sneak into the shop to see how they used the tools to build it and even *what* tools they were using. Eventually I traded a windvane for a lathe. I built the first 60 units myself. Later I hired my nephew, Éric Sicotte, who was out of a job. These days, he builds the vanes, and he is as interested in the success of this company as I am. He is very meticulous. I am very lucky. At 64, I am able to take time off for sailing in the summer."

Lucky is the word Yves would choose to describe his life. But the writer is still beset with the problem of the correct word that will describe Yves himself.

Cleaning science

An expert tells how to pick the right stuff for the job

by Bill Burr

I'm going to suggest something that may sound a lot like the TV pitchman who promises miracles for only pennies. It is as simple as this: the biggest improvement you can make on your boat costs the least amount of money compared to almost any other project. I can all but guarantee that it will improve the safety, good looks, and possibly even the performance of your vessel, no matter what size or age. If I told you about a product that could do all this, I would probably have your attention.

The product I am describing is in a small bottle or tube, stuffed away in a dark corner of a remote locker on your boat. It is nothing more than one of the hundreds of inexpensive cleaning compounds available to you every day. In order to let the genie out of the bottle, it takes a little rubbing, a modest knowledge of how it works, and some of your time. However, like the salesman says, the most important thing is to act *now*.

The first step toward your boat's transition to its old beauty is to learn how to choose the right cleaner from among the multitudes.

My education in learning about cleaners may be a good example. Like many of us who bought an older boat, I was driven to bring my sailboat back to life. She was sound, but needed a lot of tender loving care. In order to transform her, I had to learn how to clean and polish. Like few other possessions, boats require constant preventive maintenance. It simply must be done.

Like most of us who come to boats, I didn't automatically know how to clean everything. I had to figure it out the hard way, learning through the tedious process of scrubbing and polishing without any clear idea of what I was doing. When I began, I bought a deck cleaning soap. It worked OK. Then someone told me about a biodegradable detergent called Sudbury Boat Zoap. It was remarkably better.

> *"Through trial and error, I finally discovered a tar remover in an automotive store that cleaned the fenders in minutes."*

Next, I scrubbed at the tar and seagunk fouling my fenders, which had seen years of abuse and were so unsightly that I considered replacing them before my reputation was ruined. The marine store first recommended a popular fender cleaner. It failed to do more than smear the mess and ruin a good rag. Through trial and error, I finally discovered a tar remover in an automotive store that cleaned the fenders in minutes.

On and on it went. Reading labels provided minimal help. Most manufacturers gave no clue to the composition of their cleaning compounds except a warning if they contained toxic ingredients. Selection was pure chance. I never knew if I was using the best product or the worst. I found that high-priced marine products for cleaning, polishing, and renewing were often no better than supermarket staples like Fantastik and Windex.

On the other hand, I discovered some marine compounds that did what they promised and more. West Head Lube, for example, made my finicky toilet pump work like new.

In the course of bringing my boat back to civility, I devoured books on maintenance. Cleaning occasionally came up but was treated as a lightweight subject compared to engine repair, blister control, or rewiring. I searched for answers to my long list of cosmetic complaints: smudged fiberglass, scratches in the Lexan, mildewed fabric, faded woodwork, and the chaos of the bilge. I found some solutions in the popular boating books but almost never specific product recommendations.

With futility, I searched the shelves at marine stores looking for non-existent clues to selecting the best product. I learned slowly and often only through trial and error. Time and money were wasted as I narrowed down the choices. Finding the right product was frustrating, but with my background in chemistry, I took it further. What follows is a summary of what I learned.

Keep dirt off

The ultimate surface is the one that never has to be cleaned. But there are almost no surfaces that remain like new forever. All will tarnish, soil, corrode, or deteriorate in time. It's a simple fact that dirt kept off the boat is dirt that doesn't need to be cleaned. So, before we look at how to select the right cleaner, let's consider some ways to prevent bringing dirt on board in the first place.

Place a welcome mat on the dock where you step aboard the boat. The fiber varieties will deteriorate quickly, but they offer a cheap way to keep dirt away. A square of Astroturf will work as well. Put a bathroom rug at the foot of the companionway to catch all inbound dirt and sand. And when you're not actually sailing, take off your shoes when coming into the cabin.

Keep it dry and salt-free

Do everything you can to keep cushions, clothes, and sails dry and salt-free. Salt is a desiccant, meaning it absorbs and holds enormous amounts of water for an indefinite time. Once fabric is soaked with salt, it will almost never completely dry, as the salt continues to pick up water from the atmosphere.

Try to store sails dry and salt-free. On a calm, clear day when you can run the sails up at the dock, spray them with fresh water and let them dry in the sun. Racing sailors know that clean sails weigh considerably less than salt-encrusted canvas. Rinsing the sails has the added advantage of lowering the overall weight of their boats and will probably improve performance.

After an outing, rinse the deck with fresh water. Wipe the chrome and stainless with chamois. Get rid of the salt.

"The first step toward your boat's transition to its old beauty is to learn how to choose the right cleaner from among the multitudes."

Water and fresh air

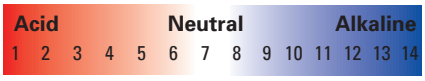
I can't stress enough that the best, least expensive, and most readily available cleaner is fresh water. If their boats are kept in salt water, owners of well-maintained boats religiously wash down with fresh water after every trip. It is no accident that water is called the universal solvent. Often it is the safest and most effective cleaner available, though we tend to overlook it in the frenzied and expensive search for the magic cure.

Likewise, adequate ventilation is critical to creating a pleasant environment belowdecks. Get fresh air into closed areas as often as possible. Every few weeks, open all the lockers, floorboards, and lazarettes for an overnight airing. It will pay off in the long run by preventing bad smells, mold, and rot. But nothing can be kept clean, dry, or mold-free forever. Stains will appear on the hull. Birds will aim at the deck. Chrome will begin to pit. If left unattended, the value and safety of your boat will corrode as surely as neglected brass. The decision to bring fiberglass, sails, brightwork, and metal back to life is one-third of the battle. Selecting the right cleaner is next. A little elbow grease is last.

Selecting a cleaner

To begin with, it will be up to you to determine the severity of the soil problem. As an example, if all you have to do is clean surface dirt from fiberglass, a conventional boat soap like Boat Zoap will do an excellent job; if used as directed, it will not be so abrasive as to remove the polish or wax already protecting the surface. If there is moderate soiling, such as bird or spider droppings, scuff marks from street shoes, or waterline stains, a more robust cleaner will be required. Try Fantastik for spot cleaning and FSR for waterline scum. These cleaners will almost certainly remove wax or polish, so the protective wax or polish must be re-applied. Finally, in the most severe case we will consider, if the gelcoat itself has dulled or become chalky, you will have to literally rub away the topmost layer of the compromised gelcoat with an oxidation remover before protecting it with a wax or polish.

A few generalizations about the chemistry of cleaners are worth making. One of the determining factors in choosing a cleaner is the pH (the degree of acidity or alkalinity) of the product. A universally accepted scale has been established to classify the pH of chemicals. The scale runs from 1 (acid) to 14 (alkaline) with neutral products in the center at 7.



On the left side of the pH scale are the acid ingredients, such as oxalic, phosphoric, and hydrochloric acids, which, depending on their strength, run from 1 up to the neutral value of 7. The closer an acid gets to 1, the stronger its effect will be — and the more hazardous it will be to a user. Neutral or mild cleaners are in the middle at a pH near 7. The alkaline ingredients, such as chlorine (bleach), ammonia, and sodium hypochlorite fall between 7 and 14. The closer an alkali gets to 14, the stronger it is and the more hazardous it becomes.

A strong rust and stain remover like On & Off, which contains three different acids, will have a low pH and should be applied with protective gloves and glasses. A mild cleaner like Boat Zoap will fall in the neutral pH category. A degreaser will be on the alkaline side and should also be used with protective gloves and glasses.

Strong agents

Alkaline cleaners should not be allowed to dry in place. Rinse them off before they have a chance to dry. On the boat, you may well be cleaning a large surface area in direct sunlight without easy access to fresh water for rinsing, so be very careful.

Many heavy-duty household cleaners contain strong alkaline ingredients (such as lye or sodium hypochlorite) for their grease-cutting properties. They are intended for use on severely soiled household surfaces and, in general, are too

harsh for surfaces on the boat, such as gelcoat.

Most of the high-powered stain cleaners, like On & Off, contain acids. In the marine environment, acidic cleaners are most effective on rust and waterline stains. Unlike alkaline products, acidic cleaners don't have much effect on grime and oil.

Many specialized boat cleaners have a pH value near neutral to avoid the hazards associated with high acidic or alkali content. Some are distinctly acidic to remove rust and stains, and some are alkaline for cutting grease. Read the product labels and try to determine the specific intent of a product. Don't just grab any cleaner at will.

Be aware that many marine cleaners are concentrated and should be diluted with water before use — don't just pour the cleaner on a rag and wipe away. Read the label and follow the instructions. Quite often, a cleaner will do a better job if it's left on the surface for a few minutes, but flush it away as soon as possible after it has done its work.

As a last resort, if you find an acid- or alkali-based cleaner is not doing the job, try an abrasive cleaner like Bar Keepers Friend or T. L. Sea Marine Cleanser. On surfaces that are deeply stained, tarnished, or oxidized, the finely abrasive ingredients in cleaners such as these will abrade away the stain. They will do no harm if used sparingly, but repeated, aggressive use of abrasives on fiberglass will wear away the gelcoat.

Cleaning compounds

Though there are numerous types of commercial marine cleaning compounds, many other useful cleaners can be found at home. Look in your medicine or kitchen cabinets for everyday remedies such as rubbing alcohol, dish soap, bleach, and ammonia. In the kitchen you'll probably find white vinegar, baking soda, salt, tea, and lemons.

These everyday natural products can often be used in place of brand-name cleaners. Don't overlook home-brew cleaners that have stood the test of time. Like the weather rhymes, home cures wouldn't continue to be used if they didn't actually work. Lemons aren't plastered with promises like marine products but they often do the job just as well. For instance, you might try baking soda for cleaning any smooth surface. It is a mild, environmentally safe — yet effective — cleaner that has been used by professionals for years.

Acidic: FSR; Starbrite Boat Bottom Cleaner; Starbrite Instant Hull Cleaner; On & Off.

Alkaline: Baking soda; TSP; Clorox; Castrol Super Clean; Easy-Off.

Neutral: Simple Green; Boat Zoap; Murphy Oil Soap; Windex; Fantastik.

Marine products

Even as you discover effective natural and cheaper non-marine cleaning compounds, don't forget that marine products are specifically designed to work in the harsh environment of salt, radical temperature change, and neglect. Most of these products are effective only if you follow the manufacturers' directions. What separates one product from another is ease of application or longevity. If product A performs as well as product B but goes on more easily, it will become more popular. If product C lasts longer than product D, it will be a favorite.

Most of us stick with a product if we feel it does an adequate job. Complacent, we rarely find out if there is something better out there. It is human nature that we hesitate to try new products. Brand advertising was created to promote customer loyalty, and we seldom switch once we find a serviceable product. However, new and improved cleaners come onto the market on a regular basis. Try some of the products that are unfamiliar to you. Chances are you will find an improvement.

The fine print

Printed on the back of every product is a long list of instructions and cautions, often in the smallest print possible. Our tendency is to ignore the instructions and plunge right into the project. As I've said, most products do a decent job if they're used as intended. Manufacturers always test their products and, in the process, determine how to obtain the best results. They want their products to succeed. Put on the reading glasses and pore over the fine print. It might make the job easier and will definitely make it more successful. Whenever you use commercial products, follow the label precautions exactly. For example, never mix cleaners containing ammonia and bleach. Harmful fumes can be created by the chemical reaction.

Specialized products

Single-purpose cleaners, advertised to do just one specific task, are sweeping the market. Products were once touted as being do-everything cleaners because they were capable of many cleaning jobs, but some companies are now expanding their lines by offering a whole slew of single-purpose cleaners to increase sales. Often there are only subtle differences among them; the intended result, apparently, is that buyers will fill their cabinets with half-used containers. This can be a problem if you postpone a chore because you don't have the single-use product you were told was necessary for the particular job you're tackling.

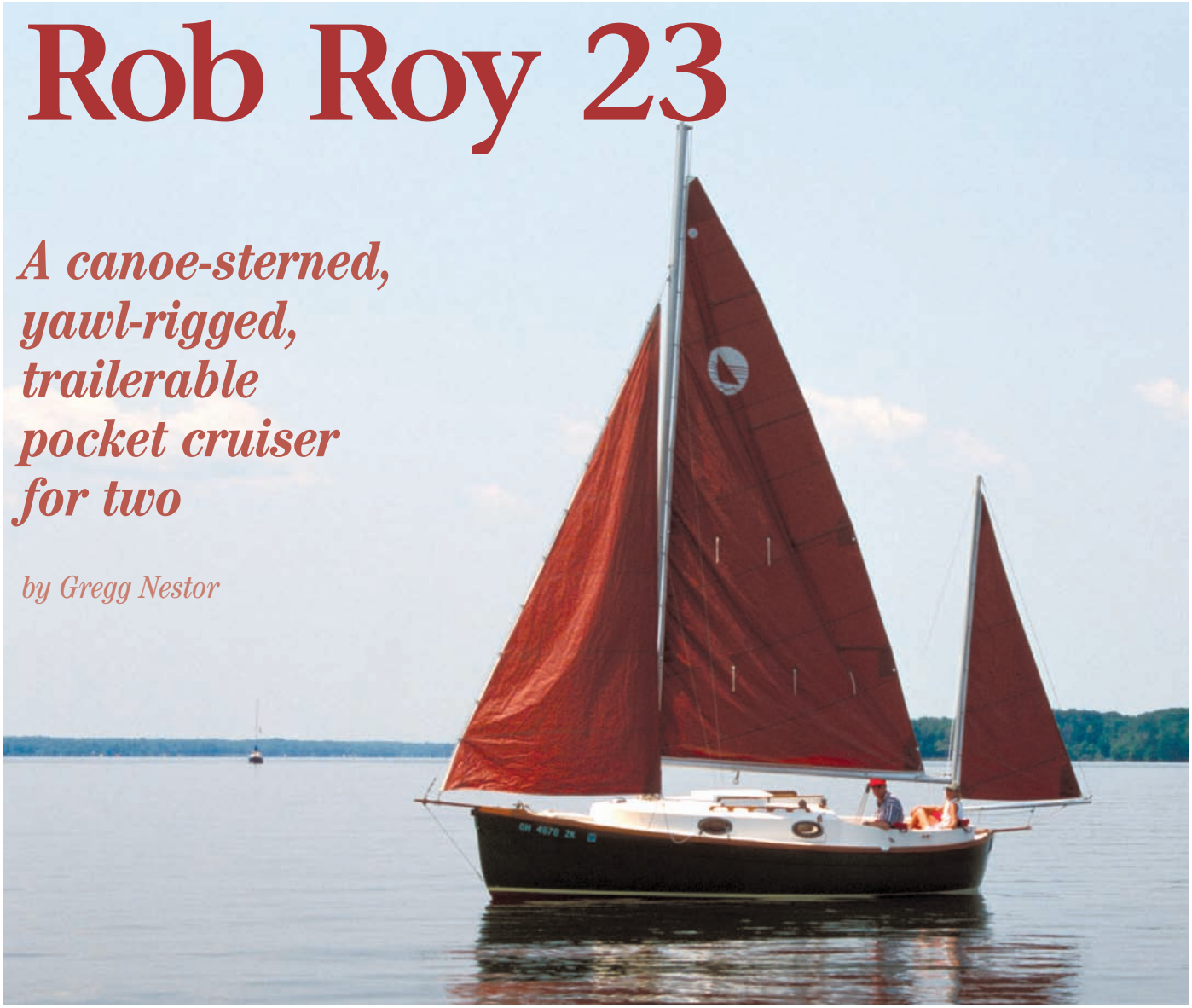
Putting off a job may mean forgetting it. Why wait to get a specialized product when a more generic cleaner would do the job just as well? There's probably a product already on the boat that would suffice. For example, if there were no black-streak cleaner

continued on Page 58

Rob Roy 23

A canoe-sterned, yawl-rigged, trailerable pocket cruiser for two

by Gregg Nestor



START WITH SHALLOW DRAFT. ADD handcrafted quality and a dash of salty conservatism. Voila! You've got a Rob Roy 23.

It has been said that history repeats itself. I believe this is so. At least it has been in the case of the Rob Roy 23. For in less than a decade, Marine Concepts of Tarpon Springs, Fla., has again ceased production of this offshore trailersailer.

Inspired by the exploits of John MacGregor and his 20-foot canoe yawl, and designed by Ted Brewer, one of North America's best-known yacht designers, this two-person pocket cruiser was first introduced in 1983. At that time, it was the only trailerable canoe-sterned yawl on the market.

In addition to its novel design, the boat sailed well, had a salty appearance, and was constructed to exacting standards. Even though it provided accommodations for only two, this unique craft addressed the needs of its crew and did it well. For seven years, its popularity was reasonably strong. Then, in 1989, Marine Concepts retired the Rob Roy in favor of the Sea Pearl line of shallow-draft daysailers.

After a hiatus, Rob Roy 23 production was resumed in 1993. Once again the last Rob Roy left the Tarpon Springs plant, this time in 1999, with emphasis directed once more toward the Sea Pearls. In total, close to 100 boats were produced. Now the molds are for sale. But maybe history will repeat itself yet again, making the third time a charm.

> *"In addition to its novel design, the boat sailed well, had a salty appearance, and was constructed to exacting standards."*

Balance, versatility, and small, easily managed sails are the attributes of the yawl, which has an overall length of 28 feet 8 inches, including bowsprit and mizzen boom. It has a length on deck of 22 feet 8 inches, a waterline length of 21 feet, and a beam of 6 feet 11 inches. It displaces 2,800 pounds with 900 pounds of ballast.

Construction

The original Rob Roy 23s, those built between 1983 and 1989, were constructed of fiberglass with balsa coring in the deck and hull. End-grain balsa is extremely light and resistant to crushing. It also affords good temperature and sound insulation. However, if the laminate is violated, the

balsa quickly soaks up water through capillary action and turns to mush.

The newer Rob Roys, those built after 1993, are also constructed of hand-laid fiberglass roving, but the core is of synthetic foam. It is widely believed that the new synthetic foams exhibit superior resistance to water migration and afford excellent noise and temperature insulation. The boat has additional layers of fiberglass roving in the keel and trailer-support areas. To inhibit blistering, behind the gelcoat layer is a barrier coat of vinylester resin. The remaining hand-laid roving that makes up the laminate is wetted out with polyester resin. The hull-to-deck joint is lapped, sealed with 3M 5200, mechanically fastened, and covered with a solid teak caprail.

The Rob Roy 23 sports a shoal-draft keel comprised of 900 pounds of ballast. This includes the weight of the centerboard. The majority of the ballast is in the form of lead chunks, which are held in place with casting resin. Older Rob Roys had aluminum centerboards that were shaped like the letter "L" lying on its back. The newer boards are of fiberglass construction and are foil-shaped. The centerboard trunk is almost entirely housed inside the shoal-draft keel. Just a foot (the foot of the "L") extends from the companionway forward into the cabin. By means of a simple pendant and cleat, the centerboard can be raised or lowered, depending upon sailing conditions. With the board down, the boat draws 4 feet 8 inches and windward performance is somewhat improved. With it up, the 19-inch draft increases thin-water capabilities and makes for easier trailering.

On deck

The profile of the Rob Roy 23 is that of a classic canoe-sterned yawl with plumb ends. The boat exhibits conventional sheer and moderate freeboard. The rudder is mounted inboard and is located aft of the outboard motor well. The design line of the cabinroof gently slopes forward and is carried out to the stemhead. This not only allows for a slight increase in cabin height as it runs aft, but also results in a clean, harmonious design.

"…designed by Ted Brewer, one of North America's best-known yacht designers, this two-person pocket cruiser was first introduced in 1983."

All of the deck hardware, including the four oval opening ports and the two Barlow #15 winches, is bronze and adds handsomely to the boat's salty looks. The deck fittings are through-bolted and secured to stainless-steel backing plates. Except for the forward hatch, which is a potential tripping hazard, the foredeck is uncluttered. All deck surfaces are glare-resistant and non-skid.

The shrouds are outboard, and there are narrow (10-inch) sidedecks. There are no bow or stern pulpits nor are there stanchions and lifelines. From its bowsprit to its boomkin, the Rob Roy's considerable use of teak is functional and adds dramatically to its appealing looks.

The cockpit seats are straight and comfortable enough, with the high coaming extending smoothly aft from the cabin to offer good back support. Even though the cockpit measures 6 feet 6 inches, the canoe stern, mizzen mast, inboard kick-up tiller/rudder, and outboard motor well gobble up space at an alarming rate. The resulting deep cockpit is ideal for two. Any more crew and they would need to go below to change their minds.

Like the centerboard, the inboard kick-up rudder is easy to lift and secure in any position by means of a simple pendant and cleat. The motor well is located just forward of the tiller/rudder. This arrangement places the motor's shaft just aft of the keel. Since the motor remains fixed in the well at all times, this positioning reduces propeller drag. The hull opening is slightly larger than the motor's cavitation plate. This allows for cockpit drainage, while discouraging surge from a following sea or possibly prop turbulence. Aft and to port in the cockpit there is a bilge pump that can be operated from the helm.

On-deck stowage is one of the boat's strengths. There is stowage for two 6-gallon fuel tanks (one to port and one to starboard) as well as two additional cockpit seat lockers. Below the cockpit sole is a raft compartment that also houses the battery in its own secured box. There's also a pair of handy bins forward, one each on the inside of

Even though the cockpit is 6 feet 6 inches long (right), the canoe stern, mizzen mast, inboard tiller, and outboard motor well gobble up space at an alarming rate. The deep cockpit is ideal for two.
John Oney, facing page, ghosts along on Pennsylvania's Pymatuning Reservoir in his 1986 Rob Roy 23.

the coamings. At the forward end of the cockpit is a proper bridge deck. Its function is to prevent water from cascading below, should a large wave fill the cockpit. No proper seagoing craft would be without one.

Below deck

Below, the Rob Roy utilizes a small fiberglass interior pan to give the centerboard trunk a more finished appearance and to predetermine the location of the bulkheads and cabinetry. Unlike other boats of this size, this fiberglass unit is not a structural component. The bulkheads and cabinetry are double-tabbed to the hull and finished with teak veneer. All trim work is solid teak. The cabin headliner is foam-backed vinyl and, along with a teak-and-holly sole, finishes off the cabin in proper yacht fashion.

The forepeak is designed primarily for stowage, with port and starboard shelving lining the hull, a locker to port, and a hanging locker to starboard. There is even adequate room for a Porta Potti. This arrangement offers both privacy and roominess. A curtain separates the forepeak from the main cabin. One optional interior plan locates a marine head to port, removes the hanging locker, and adds a child's berth to starboard. Access from the deck to the forepeak can be gained through the forward hatch.

Aft of the bulkhead is the galley. To port is a stove area that is large enough to accommodate a two-burner stove. A stainless-steel sink with bronze hand pump is on the starboard side. Potable water capacity is 14.5 gallons. The storage tank is forward. An optional pressurized potable water system was available. Above both of these galley work areas are pantry bins. Beneath, the teak cabinets have drawers and sliding doors with additional stowage bins. There is room for a cooler or an optional built-in insulated ice chest under the cockpit sole, alongside the centerboard trunk. The four bronze portlights open and, along with the forward hatch, provide cross ventilation and natural illumination for the cabin.

Located amidships are the settees/berths. As settees they are 4 feet 8 inches long. When used as berths, they are 6 feet 6 inches long and extend under the cockpit. By using the settee back cushions and an insert, they can quickly be converted into a platform double berth. The settees are comfortable and allow for full sitting headroom. There are shelves outboard of the settees/berths that are convenient for small items. The electrical panel is located aft and starboard, under the cockpit.

Rob Roy 23

Designer: Ted Brewer
LOA: 22 feet 8 inches
LWL: 21 feet 0 inches
Beam: 6 feet 11 inches
Draft:
Board up: 1 foot 7 inches
Board down: 4 feet 8 inches
Displacement: 2,800 pounds
Sail area: 255 square feet
Ballast: 900 pounds

The rig

The Rob Roy is a classic canoe yawl. Its mainmast, which reaches a height of 29 feet 6 inches above the water, is stepped on deck with a hinged tabernacle. This is supported belowdecks by a central bulkhead archway that, in turn, is supported by solid teak members that reach to the keel.

While the mainmast is supported by single upper and lower shrouds, the mizzen mast is unstayed. All spars are anodized aluminum. Total sail area is 255 square feet. The mainsail comes standard with two reef points and jiffy reefing. All halyards are low-stretch Dacron, are external, and are cleated at the bases of the masts. Jib sheets are led through adjustable sheet blocks situated on two-foot sections of track that are located on either sidedeck. From these points, the sheets travel aft, through a fairlead, on their way to winches located on either side of the aft portion of the cabinhouse. The

From its bowsprit to its boomkin, the Rob Roy 23's use of teak is functional and adds dramatically to its appealing looks.

The bulkheads and cabinetry, below, are finished with teak veneer. All trim is solid teak. The headliner is foam-backed vinyl and, along with a teak-and-holly sole, finishes off the cabin in proper yacht fashion. The four bronze portlights, left, open to provide cross ventilation and natural illumination for the cabin. The use of bronze hardware, right, both topside and below, adds to the Rob Roy 23's "salty" looks.

sheets are finally cleated at the top corners of the companionway by means of cam cleats. Mid-boom sheeting for the mainsail is attached to a traveler on the bridge deck and cockpit seats.

Underway

The hard bilges of the Rob Roy 23 give the boat good initial stability. As it heels, it progressively stiffens. It is a seaworthy and dry craft.

The yawl rig works fine on a reach. However, upwind the close-set mizzen suffers a bit from mainsail backwind. On the flip side, the mizzen functions well when sailing downwind. However, all the while it's stealing air from the main. The Rob Roy 23's performance in light air is very respectable, as is its ability to hold its own when conditions get rough. The yawl rig allows a sailor to reef and maintain balance, while at the same time lowering the center of effort.

Unfortunately, the versatility and virtues of the yawl rig often prevent the boat from reaching its full potential. For example, a sloop-rigged version with the same amount of sail area would probably accelerate faster and most definitely point closer.

The boat's engine well was designed to carry an 8-hp Honda 4-stroke. This powertrain moves the boat along quite well; however, some sailing performance is lost because of its fixed arrangement.

Things to check out

Since the hulls and decks of the earlier boats (1983-1989) were cored with end-grain balsa, check closely for balsa that has deteriorated due to water influx and migration. Areas requiring particular attention include those around through-hulls and deck fittings. If, when tapping with the handle of a screwdriver, you hear a dull thud instead of a solid ring, some potentially major work may be in the offing.

"Marine Concepts built the Rob Roy 23 well, and they stand behind it."

The earlier models had aluminum centerboards and aluminum-sandwiched rudders with a splash of stainless-steel welds/fasteners. If the boat is kept in the water, especially salt water, and not on a trailer, electrolysis can occur. Protect these blades with zincs.

There is a tendency for the outboard to become starved of air while under load. Enlarging the air intake will relieve this condition.

Summing up

As designed, the Rob Roy 23 is a two-person boat. Every design detail from the interior arrangement to the cockpit size to the sail plan reflects this fact. So if you're planning on entertaining several guests with cocktails on the fantail or berthing a crew of four below, this is definitely *not* the boat for you.

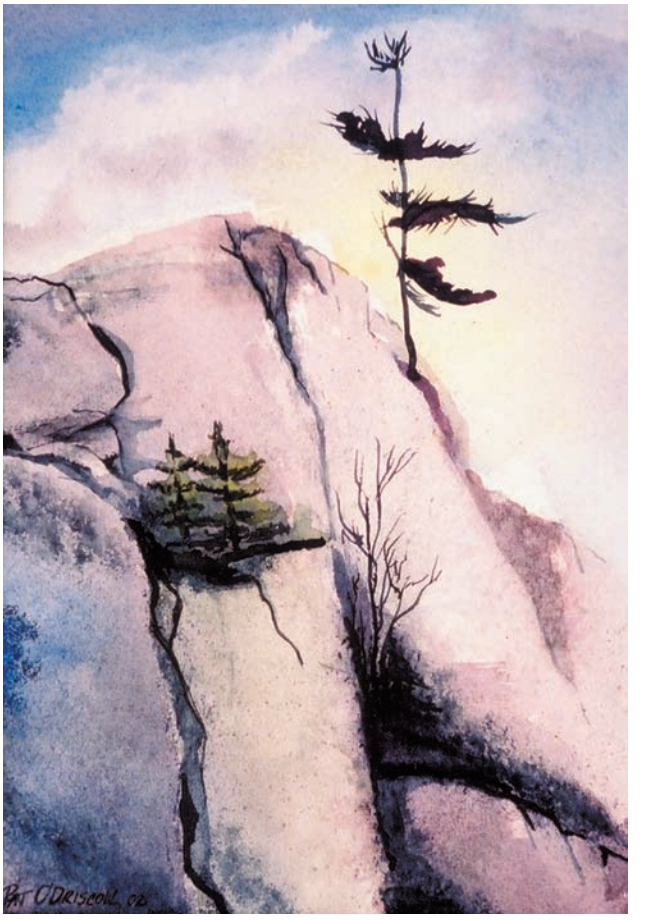
If you appreciate simplicity in design and ease of operation, attention to detail in construction and finish, and a salty, almost nostalgic-looking offshore trailersailer, this *is* the boat for you. The boat is a comfortable "weekender." Owners have reportedly cruised it for weeks at a time. Some have regularly ventured into open waters. Marine Concepts built the Rob Roy 23 well, and they stand behind it. Through refinements in construction and design upgrades, they work hard to keep Rob Roy owners happy.

There's no shortage of boats in this size that have larger cockpits and more berths and that cost less. As simple as it sounds, the old adage rings true . . . you get what you pay for.

A 1983 Rob Roy 23 originally sold for $16,000. Today that same boat is worth about $6,000 on the used market. A 1985 version goes for around $12,000 and a 1999, whose base price was $32,000, commands $28,000. If you're sufficiently interested or just want to whet your appetite, check out the brokerage page on the Marine Concepts website at: <http://www.marine-concepts.com>, or make contact with the Rob Roy 23 Association at: ahaberle@msn.com.

Soft Seascapes

by
Pat O'Driscoll



Chrysler's S-27 reborn

A labor of love makes a tired old 27-footer better than new

by Martha Leonard

"Chrysler? Are you sure? I didn't know Chrysler made sailboats!" The words of our friends echoed our thoughts when we bought our boat. As we delved into her history, however, we found that Chrysler did indeed build boats from 1966 to 1980. Our 27-foot sloop was built in the last year of Chrysler's marine production.

We stumbled on our boat by accident. Because most of our interests had led us in different directions, my husband, Arnie, and I were looking for something we could enjoy together. We both like the water and since we live near the St. John's River in north Florida, buying a boat seemed a good bet. It was the day of the Mug Race, an annual sailing event that starts in Palatka and ends in Jacksonville. We watched the sailboats as they left the docks for the starting line downriver, then strolled down the pier of a small local marina to look at the boats left behind.

One particular boat with graceful lines and a "For Sale" sign caught our eye. After brief negotiations with the owner, the boat was ours. Ignorant and innocent, we bought it without seeing the bottom or the sails! (We wouldn't do that again, but we were lucky this time.) We knew the 7-hp Yanmar engine worked, and we liked the roomy cabin with four bunks, a small galley, and a huge head in the bow.

In appearance, the boat was a little forlorn — used but recently neglected. It appeared to be structurally sound but needed some renovating. This interested Arnie, who was looking for a project. Furthermore, the price fit our budget. We did not know for several weeks that our purchase was a treasure in disguise.

New franchise

In 1979, Chrysler Corporation introduced Chrysler Yachts, a new franchise. They contracted with Charles Morgan to obtain the design rights to his Morgan 27 and redesigned it to be comfortable for cruising and also competitive under MORC racing rules. This marriage of cruiser and racer was called the S-27 and was the proposed flagship for the franchise. She made her first appearance in Michigan at Sail Plan '79. (This was the first of what Chrysler planned to be an annual convention bringing together the biggest names in the world of sailing.) Introduced as "The yacht for all reasons," the new S-27 was toasted with champagne and hors d'oeuvres by an impressive array of guests.

The original specs were: LOA 27.25 feet; LWL 25.50 feet; draft 4.92 feet; beam 9.92 feet; displacement, 8,000 pounds; ballast 3,600 pounds. She was white and trimmed with teak. She was available in fixed-keel and shoal-draft, swing-keel models.

During the next year or so Chrysler built a number of sailboats of different sizes. Unfortunately, financial problems short-circuited their ambitious plans for Chrysler Yachts and an annual sailing symposium for sailing. In 1980, Chrysler Corporation applied to the federal government for loans to continue operating. As part of the federal bailout, Chrysler was required to drop the sailboat business. The last

of the Chrysler S-27s were built in 1980. The total number of S-27s built is unknown, but it appears to be small. The website of the Chrysler Sailing Association lists only nine current owners of S-27s.

> *"Ignorant and innocent, we bought it without seeing the bottom or the sails!"*

Special treatment

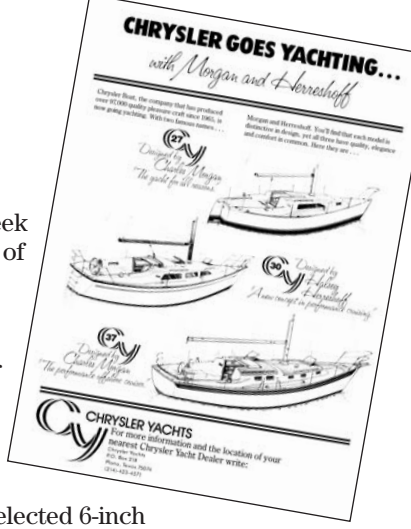
Since we have owned her, our lady has spent most of her time getting a "spa" treatment. The first step: a good cleaning from top to bottom. Next, we turned our attention to leaks. Some of the deck fittings and portlights had been improperly installed; in some cases, rotted core was the result. We removed all the leaking deck fittings and rebedded them. In addition to the leaking and rotted trim around the portlights, the Lexan was heavily scarred, reducing visibility. We decided to replace, rather than repair, them.

While we were at it, we removed the surrounding vinyl lining. Since the rest of the lining on the overhead in the cabin was dingy, torn, and sagging, we removed it also, leaving the bare fiberglass hull exposed. The resulting holes from the portlights were filled with ½-inch plywood, shaped and fitted to the recessed openings. We used ¼-inch waxed, threaded bolts and fender washers as clamps to ensure solid glue joints. The next day, when the epoxy had set, the wax allowed us to remove the clamp system easily. The holes were filled and faired inside and out until flush with the sides. We used epoxy fairing compound and some glass on the interior for strength.

We discussed replacing the vinyl lining in the cabin but elected instead to use wood, which we thought would stay cleaner, last longer, and give the cabin a homey look. To form a base for fastening, we glued ⅜- by 2-inch strips to the overhead on 16-inch centers from the forward bulkhead to the companionway hatch. Thin strips of ¼-inch by 2-inch tongue-in groove were presealed with epoxy and primer, then fastened fore and aft with stainless-steel ¼-inch countersunk screws. To keep the lines straight, we started from the center and fit each slat individually, following the curves of the overhead. In some cases the pieces had to be spiled. It was a challenge, to say the least, but well worth it. We finished the overhead with the application of two coats of marine primer and two coats of Pettit white gloss enamel.

Port replacement

After completion of the overhead and a portion of the sides, we turned to the replacement of the ports. We wanted to keep the sleek racing lines of the design, but at the same time allow better ventilation and air circulation in the cabin. We selected 6-inch by 24-inch Beckson Rain Drain opening ports. Using the outside trim piece, we traced a pattern and cut out the wood recently placed on the cabin sides. The holes were cut about ¼-inch wider than the ports in order to seal with epoxy and fiberglass cloth.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The new ports were installed from inside out with stainless-steel screws and caulked. We gave the remaining unfinished interior sides the same wood treatment as the overhead, except the boards were placed vertically and cut to length to correspond with the hull shape. The white wood overhead and sides were then trimmed with varnished mahogany.

With an eye toward the possibility of spending long periods of time aboard, we turned our attention next to refurbishing the cabin interior without changing the basic layout. We upgraded the electrical wiring for additional lighting and instruments. We rebuilt the galley sink and stove area, adding teak drawers for more storage. The sink was replumbed and fitted with a new hand-pump faucet. We recovered the various cushions, and we made curtains. We left the large forward head as it was with hanging storage, shower seat, Porta Potti,

***Lotsaknots*, a Chrysler S-27, on opposite page and above at launchtime. Arnie and Martha Leonard removed the worn vinyl overhead lining, at left, and replaced it with strips of marine ply, which was then painted white, shown at right.**

On deck, leaking fittings were removed and rebedded and new non-skid was added. In addition, ports were modified or replaced and the interior was updated.

and an additional sink.

Deck repairs and replacements were ongoing. We replaced the original mainsail, which was blown out and patched, with a custom-made sail complete with the CY insignia. Arnie found a new talent for sewing when he successfully completed a new sailbag for the genoa. When we found an inexpensive source for Sunbrella, he was enthusiastic about creating a new mainsail cover. He entered a new world of zigzagging, nylon thread, and cutting with a hot knife. For a pattern, he used an old sail cover and guidance from *The Complete Canvasworker's Guide* by Sailrite's Jim Grant.

Removed hardware

Repairing the leaks required removing some of the deck hardware. While we were at it, we relocated some of the tracks. We decided to replace some of the worn running rigging as our budget allowed. In repainting the boat, we kept the white hull, but used a sand-colored contrast on the non-skid areas. Our main extravagance was an autopilot.

> *"We did not know for several weeks that our purchase was a treasure in disguise."*

Since Arnie enjoys working with wood and is pleased at his newfound talent for cabinetry and sewing, most of the work on the boat has been a labor of love. He did get frustrated by the difficulty of obtaining good-quality materials and accurate tools, parts, and supplies. Because we live in a rural area, we had to travel or use mail order to get materials. We experienced a number of delivery delays, back-order holdups, and erroneous substitutions for what was ordered. Arnie also realized that the curving lines of our boat were more challenging than he'd expected when compared with the straight lines of housing construction.

I love the spacious cabin and have never felt closed in. The open ports make a big difference in ventilation. The galley is efficient and makes it easy to prepare meals. The two main bunks are comfortable, but we may indulge in better mattresses soon. The head is roomy, and friends envy us our large shower area.

To date, we have taken only short trips on the river. We have found our S-27 to be very responsive although with a bit of a weather helm. She moves easily and handles well in the gusty and unpredictable winds of a winding river. She also sails in the lightest of winds in spite of her 8,000-pound displacement. She can handle a larger-than-normal sail area for her size, but we generally use a Number 2 genoa. With a five-foot draft and fixed keel, she is extremely stable, a comforting thought for novice sailors.

On a rare day we have achieved five to six knots on a half-mile tack — unusual for river sailing. While we had a skimpy history from the previous owner, he did say she had been sailed offshore. We did not doubt it when we found well-used charts for Bermuda and the Bahamas.

Bright future

The future looks bright for our fair lady and us. I retired from my practice as a mental health counselor last fall. That frees us to explore the Intracoastal Waterway and some of the islands of the East Coast. We hope to start in Georgia and go up to the Carolinas. Our long-term dream is to visit Canada's Maritime Provinces and explore the areas off Maine, which were the stomping grounds of Arnie's ancestors.

Three Mug Races have come and gone since we bought our boat and the fourth will occur in May 2003, as you are reading this issue. We would like to see how she does in that race. Sometimes it seems as if she is tugging at the lines to go. While we're a bit intimidated by the thought of racing, we may convince others to crew for us and give her the test.

And what, you may be wondering, is our lady's name? We christened her *Lotsaknots*. A lady her age certainly has a lot of knots behind her. We are confident she also has even more knots left, and we hope to enjoy them for many more years. When Chrysler and Morgan set out to unite the best of racers with cruisers, they did an excellent job. We revel in the renewed cabin and delight in the boat's grace and easy movement. It's been a pleasure to see her bloom with our improvements, and we're looking forward to different ports, steady winds, and all the other joys of sailing and cruising in our rare, classic "yacht for all reasons."

Chrysler Resources

Chrysler Sailing Association Web site: <http://www.geocities.com/sneeuwjagt/> or <http://www.geocities.com/thetropics/cabana/3135/>

SailNet Chrysler discussion group:
<http://members.sailnet.com/resources/links/list/index-new.cfm?id=chrysler>

Chrysler sailing page:
<http://www.kiva.net/~gentrysv/sail.html> but soon to move to this address:
<http://myclubs.excite.com/mycomm/browse.asp?cid=.A6AKtxoIztT>

A Web site with Chrysler sailboat brochures:
<http://www.isc-durant.com/nolan/sailing/chrysler/index.htm>

The gentle art of rowing



Oars: How to choose 'em and use 'em

by Don Launer

ALTHOUGH SOME DINGHIES CAN HANdle outboards and some have sailing rigs, every dinghy has a set of oars. The ease and pleasure of rowing a small boat depends on its hull design, oars and oarlocks, and the skipper's technique. In every dinghy the types of oars and oarlocks, as well as the rowing technique, are contributing factors to a dinghy's practicality. Not only is a rowing dinghy great for taking out that storm anchor or bringing ice from the marina, but leisurely rowing through an anchorage allows conversations with other boatowners, a social event that's impractical when using an outboard or sailing rig. (For a discussion of dinghies themselves, see Page 51.)

Oars

Oars come in many lengths, shapes, and levels of quality. When you visit your local marine store, you'll find a good selection of oars, but how do you choose the best? People have argued for years over which wood was the most perfect for oars. Most are made from basswood or spruce.

There are about a dozen species of basswood, or linden, which grows in the temperate zone of the Northern Hemisphere. Basswood is the choice of hobbyists, since its wood is light, soft, and easy to carve. Nonetheless, it is tough and durable and is a reasonable choice for oars.

Spruce doesn't rot easily. It is considered by many to be the best oar material for recreational rowing, since it is very light yet has a good strength-to-weight ratio. Sitka spruce, a special variety of that species, grows in moist sites along the coast of British Columbia and can attain heights of 300 feet. Because of the height of the tree's stem, the wood is usually straight-grained but has a lower resistance to decay than other spruce varieties. For oars, it is light in weight and moderately strong.

Oars made from the ash tree are the heaviest and strongest and are recommended for extremely hard usage. However, ash oars, because of their weight, are not as easily used as oars made from lighter-weight woods. Ash is the common name of a large variety of trees found in northern North America and Europe. The trees grow to a height of 100 to 150 feet. Their wood is fine-grained, tough, and hard, ranking next to oak in strength and durability, so it holds up well.

Occasionally you'll find oars made from sassafras, maple, or cherry. Oars and paddles made from these woods are prized by their owners since these woods have the look of a fine piece of furniture when varnished. Oars of sassafras are light, flexible, and darken to a rich walnut color as they age. Using these woods tends to make oars a bit more expensive.

If you look closely, you'll find that most oar blades are made from three pieces glued together (laminated). The best and most expensive oars are those that have been cut from a single piece of wood. The expense is partially a result of the waste involved. While the shaft of laminated oars can be made from a 2-inch by 2-inch piece of lumber, one-piece oars are made from 2-inch by 6-inch boards — so the wood stock costs nearly three times as much.

Blades on most oars are straight and come in a variety of shapes and sizes. In the early part of the last

Preparing for the power stroke, above at left. The position of the blades in the water during the power stroke, center. The oars are feathered on the return stroke, right.

century, quality oars came with copper blade tips to protect them from wear. Now this protection usually is made of epoxy or sometimes epoxy and fiberglass. The firm of Shaw & Tenney, of Orono, Maine, which has been manufacturing oars and paddles since before Abraham Lincoln was president, supplies oars with inlaid cherry tips. This hardwood resists wear and creates an elegant contrast. Other manufacturers, such as Lahnakoski of Finland, use wood wedges that are mortised into the tip of the oar.

Oar length

Once you've decided on your oar material and construction, length is the next consideration. A rowing dinghy should have the longest oars possible. Generally, the length of an oar should be at least 1.5 times the beam. So a dinghy with a 4-foot beam should have 6-foot oars. For dinghies with very high freeboards, longer oars are required.

The Pardeys suggest oars up to three times the beam. Many oar manufacturers use the formula that the oar length should be beam times 25, divided by 14 (to the nearest 6 inches). This would give an oar-length of 7 feet for a dinghy with a 4-foot beam. The controlling factor here is that the oars should be able to be stowed inside the tender. To this end, some long oars are made in sections. A few rowers (usually those who have grown up rowing racing sculls) prefer to row with the grips of the oars overlapped. In that case, add 6 inches to the above figures.

Oar maker Shaw & Tenney uses a slightly different formula to calculate oar length: measure the beam of your boat in inches between oarlock holes, divide by 2, add 2 inches, divide by 7, and multiply by 25. This formula gives you the oar length in inches, which will produce a leverage ratio of about 7:18.

". . . leisurely rowing through an anchorage allows conversations with other boatowners, a social event that's impractical when using an outboard or sailing rig."

The diameter of the shaft of an oar depends on oar length. Shafts generally vary from 1¾ inches for the shorter oars to 2½ inches for the long ones. Although shafts are usually round and turned on a lathe, square-shaft oars, popularized by R. D. Culler, are also available. With square-shaft oars you'll have to use the pinned-type oarlocks.

The rate of the rowing stroke is proportional to the oar length, with the longer oar resulting in a slower rate. A rate of about 30 strokes per minute is comfortable for recreational rowing.

Oar maintenance

Oars are usually sold already varnished. However, some are sold bare. Although varnishing allows you to see the condition of the wood, it requires regular maintenance. Paint is more practical but can hide faults in the wood. Although varnished oars seem to be the norm, I advocate painting oars— at least the lower part of the oars — with white, marine-grade paint. If you have ever tried to find a pair of varnished oars in the water at night, you'll understand why. Whether oars are varnished or painted, it's a good idea to leave the grips bare. Varnished or painted grips are slippery when wet.

Whenever oars are not being used, keep them out of the sun and weather as much as possible. This is especially true if they have laminated blades.

Oar protection

When your dinghy is being towed, make sure your oars are secured to prevent loss. Although the oars can be tied down, a better idea is an oar yoke, which fastens the oars through the seat of a dinghy. This yoke is usually bronze. The one-piece version can be fastened in place from under the seat with a clevis pin. When the dinghy is left at a public dock or on the beach, a padlock can be substituted for the clevis pin to discourage theft or kids' joyrides. Edson makes a two-piece bronze yoke, where the clevis pin or padlock is above the yoke.

Oarlocks

There are many types of oarlocks, or rowlocks, available. For children and rowing novices, the U-shaped, or "horn" oarlock (sometimes called the North River horn oarlock), with a pin through the oar, is the most common and easy to use. (The term "horn" is usually applied to U-shaped oarlocks, which resemble the horns of a bull.) With a pinned oarlock, the pin through the oarlock and oar keeps the oar and oarlock together and keeps the blade vertical. This is not the ideal type for rowing, however, especially while rowing into the wind or chop, when feathering the blade is a great advantage. When I began rowing my own boat — at about five years of age — my father would not allow pinned oarlocks (he was on the rowing team at Cornell).

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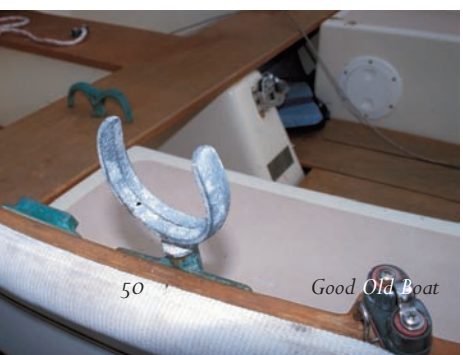
The unpinned "horn" type oarlock, below left, allows feathering. Round oarlocks, below center, keep the oarlocks on the oars and still allow feathering. An oar yoke is used to hold the oars in place when they're not in use or to lock them down to prevent theft, below right.



Dinghy choices

Don's folding dinghy stowed on deck, at left. Below, he launches this folding dinghy singlehanded.

IT'S NOT A PERFECT WORLD, AND IN ITS IMPERFECTIONS, THE ideal dinghy doesn't exist.

Cruising sailors are looking for a yacht tender that can be easily rowed or sailed (a true displacement hull) but also one that can be towed behind the mother craft with little pull on the painter (a planing hull). The dinghy must be small and light enough to be easily hoisted and stowed on deck during offshore passages, but large enough to carry the crew and provisions through a nasty chop. It should be beamy enough to make it stable when you're boarding or leaving, yet narrow enough to make it a good sailer or easy to row or both.

All cruising sailboats need a dinghy of one type or another. Since about 90 percent of cruising time is spent in an anchorage or marina, having a practical dinghy that can be easily rowed, motored, or sailed is a great advantage. Many sailors opt for an inflatable dinghy. In fact, for many sailboats, it is the only practical option. Liveaboards and inveterate cruisers who use their dinghies on a day-to-day basis find that their inflatables have a useful life of about three or four years. For the weekend sailor, a good inflatable's life span is much longer, up to 10 or 15 years.

Although having an inflatable makes the stowage problem much simpler, inflatables are atrocious to row, especially into a wind and chop and, with the exception of the Tinker, can't be sailed. One big advantage of the inflatable is that it can be easily towed in open water with its bow fastened up near deck level and only its transom in the water.

A hard dinghy would be ideal for rowing, but there must be some provision for carrying a hard dinghy on deck amidships or perhaps on stern davits, neither of which is the ideal situation, unless you have a very large boat. (Both of these positions can be a problem on small sailboats.) If a hard dinghy is carried right-side-up on deck, it becomes much easier to launch and retrieve. It also becomes a good place in which to stow a boarding ladder, a sailing rig, and oars. Naturally, the drain plug should be removed to drain rain or spray. But when a dinghy is stored right-side-up, there's always the possibility of heavy seas filling it; the dinghy can then easily weigh a half ton, severely straining its lashings and possibly becoming a lethal weapon. For this reason, most cruisers stow their hard dinghy upside-down on deck. Although this is the safer arrangement, it makes launching and retrieving more difficult. Even if a convenient spot for a hard dinghy can be located on deck, visibility is bound to be compromised.

In recent years many hard dinghies made in one piece from polyethylene or polypropylene have appeared on the market. These dinghies are slightly lighter than their wood or fiberglass counterparts and have less tendency to scuff your topsides.

Many years ago we learned the hard way that a dinghy should never be towed when sailing in open water — especially when the possibility of a storm exists. We were returning from a cruise to Block Island when a northeaster overtook us with winds directly astern. Our hard dinghy began surfing down the breaking waves, passing us first on one side and then the other, occasionally hitting our transom. Soon, however, the breaking waves filled it with water, and it became a very effective sea anchor. Things were getting so bad that we considered cutting it loose, but we were able to limp into the harbor at Port Jefferson, Long Island, at less than one knot. We vowed never to tow a dinghy at sea again — even if the weather at the start of the day seems perfect.

The tendency of a dinghy to surf down a wave can be mitigated somewhat by towing a warp from the stern of the dinghy. Of course, this increases drag, and the warp is nearly impossible to rig once sea conditions have become rough. Furthermore, this doesn't eliminate the possibility of the dinghy's filling with water. If you rationalize that you'll tow your tender and bring it aboard when sea conditions start to build, you're likely to change your mind when the weather turns nasty.

A compromise to the stowage problems of a hard dinghy is having a folding hard dinghy or a sectional, nesting, hard dinghy. When we're on an offshore cruise, we take an 8-foot folding hard dinghy along on deck. Our folding dinghy is made from mahogany plywood and folds down to 4 inches thick. We stow the folded dinghy, pictured above, lengthwise on the port side of the cabintop, which doesn't interfere with visibility from the cockpit. Our folding dinghy can be rowed or motored and also has a sailing rig. We purchased it 20 years ago, and it still doesn't leak a drop — probably because we keep it out of the sun and weather in its vinyl case when not in use. This dinghy was imported from Britain by Britannia Boats of Annapolis, Maryland, who sell the Cornish Crabber Pilot Cutter 30. There are also folding hard dinghies made completely of plastic.

We don't have any sheet or halyard winches on our schooner, but after our folding dinghy has been

Resources

Britannia Boats, Ltd.: 410-267-5922
<http://www.britanniaboats.com>
Bauteck Marine: 888-228-8325
<http://www.bauteck.com>

assembled on deck, I can hoist it to and from the water without assistance, using a 4:1 block and tackle with an integral cam cleat and the halyards, to the top of our schooner's fore and main masts — very much in the same way that the old Grand Bank fishing schooners launched their dories. With this method I can hold the dinghy off and steady it as it comes up alongside the hull and over the lifelines with one hand while hoisting with the other. For a single-masted vessel, the main halyard alone can be used — using the halyard winch, if you have one. If you use a halyard winch, the launching and retrieving will require two people, one at the winch and the other by the rail.

When in protected waters, such as the East Coast's Intracoastal Waterway, we use our Bauer 10 fiberglass dinghy, pictured on Page 49. It's a very stable boat and a wonderful sailer. It can also be rowed easily or powered by a small outboard. Its 10-foot length and wide beam make it handy when we have guests aboard to take to a waterside restaurant or swimming beach or when hauling groceries from shore.

When a hard dinghy is being towed, it should be from the center of a bridle going from the port to starboard stern cleats on the mother boat. The dinghy's painter, fastened to the center of this bridle, should be polypropylene, since a polypropylene line floats and won't foul the propeller. It's best to make eye-splices in polypropylene line, since knots tend to slip. If you'd rather use a nylon painter, floats should be attached along the line to prevent it from sinking. (Small, plastic rope-floats are available from marine suppliers). When towing the dinghy, you can reduce drag slightly by adjusting the length of the rode so the dinghy rides downhill on the forward face of the stern wave. But this is usually impossible with a displacement dinghy, since it will always be riding on the uphill slope of a wave it has created for itself and which is longer than itself.

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Another type of horn oarlock, extensively used before World War II, was an oarlock where the pin was on the rail and the oarlock horn had a socket in its bottom that fitted over the pin. A variation of the pinned oarlock is the Wynn post-and-clamp oarlock, which consists of a metal clamp that bolts around the oar and is attached through a pivot to a post that fits in the gunwale socket.

U-shaped, unpinned oarlocks — also a horn-type oarlock — were originally called crutches. These oarlocks are not fastened to the oar and allow feathering. A big advantage of unpinned oarlocks is that in close quarters you can pull the oar inboard and still maneuver. Unpinned oarlocks require practice, however. They must be tethered to the boat so they are not lost overboard. These oarlocks have holes in their casting for just that purpose. Although a short nylon lanyard will suffice, commercially available chains with a short bar at the end are also used. Of course, this chain and bar cannot be used with top-mounted gunwale sockets. Oarlock materials vary widely: inexpensive pot metal, Delrin plastic, galvanized steel, stainless steel, and bronze.

For the rowing perfectionist and those with very narrow boats, there are also outrigger oarlock brackets that extend the socket of the oarlock about a foot beyond the side of the dinghy. This type of oarlock, however, is impractical if the rowboat is being used as a tender.

My personal preference is for the round-type oarlock. It becomes part of the oar and cannot be lost overboard, but it takes two hands to put the oar in place.

"A rowing dinghy should have the longest oars possible. Generally, the length of an oar should be at least 1.5 times the beam."

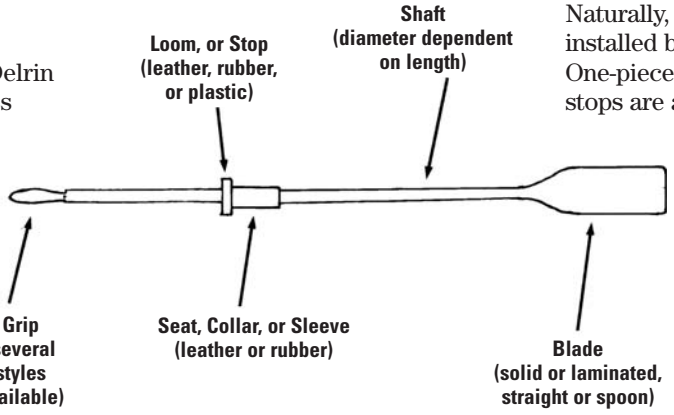
Unpinned oars need a stop. This stop is the raised section on the oar just inside the oarlock. It's often made from leather wrapped around the oar several times and secured with copper nails. The stop prevents the oar from sliding out into the water if you release your grip and, in round-type oarlocks, it keeps the oarlock connected to the oar. If you are installing round oarlocks on your oars, be sure to slide the oarlocks in place before the loom, or stop, is installed.

In place of leather looms, hard rubber or plastic ones that are slipped down over the grip of the oar and pushed into position last longer and require less maintenance. The stops should be positioned so that when the oars are held in a horizontal position, the grips of the two oars are almost touching (unless you like rowing with an overlapping grip).

Just outboard of the loom are leather seats, collars, or sleeves where the oar comes in contact with the oarlock. Leather seats can be installed with contact cement to hold them in place temporarily; then they can be herringbone-stitched or fastened in place with copper nails. Rubber or plastic sleeves are also available. Naturally, these sleeves must be installed before the loom or stop. One-piece combination collars and stops are also available in hard rubber or plastic. Since shaft-diameters of oars vary, be sure to check that dimension before ordering rubber or plastic collars and/or stops.

Oarlock sockets, or gunwale sockets, come as top-mount or side-mount and, as with oarlocks, are

The nomenclature of an oar



made in a variety of materials. The Davis oarlock and gunwale socket is a horn oarlock/socket combination where the oarlock can be flipped down out of the way when not in use, but remains attached to the gunwale socket.

> *"Good rowing technique requires that you use as many muscle groups as possible — not just your arms."*

Rowing technique

Even though you may have the ideal dinghy and the best of oars and oarlocks, it all comes down to your rowing technique. There's not much practice or technique required for oars with pinned oarlocks, but unpinned oars take a little getting used to.

Good rowing technique requires that you use as many muscle groups as possible — not just your arms. With your wrists straight, grasp the oars so the blades are vertical. Lean well forward with your arms extended in front of you, and put the oar blades in the water with their upper edges just at the surface. Pull on the oars by straightening up your body, keeping your hands level, and using leg power to prevent you from sliding off the seat. Near the end of the stroke, your arms can be flexed for that added measure of blade-distance in the water. During this power stroke, the blades should not come out of the water or dip too far below the surface.

When you have completed the power stroke and begin the recovery, feather the oars by rotating your wrists downward so the blades are almost parallel to the surface of the water. This feathering reduces wind resistance on the blades, making it easier to row into a strong wind. In a chop it also prevents the oar from hitting the top of a wave. As the oar blades are returned toward the bow of the boat, you should be in the original position, leaning forward with your arms outstretched. Now rotate your wrists upward so the oars are at 90 degrees to the water, lower the oars into the water, and begin your next power stroke.

Keeping on track

To keep on track when rowing, point the dinghy in the direction you want to go, then select some fixed point astern — a point on land, an anchored boat, or a relatively stationary cloud formation, and keep that reference point dead astern. Naturally, you have to look over your shoulder occasionally to make sure there is nothing or no one in your way.

Sculling

Sculling is an alternative to rowing that is not seen much anymore. This method uses a single oar astern, in replication of a swimming fish. Nearly all dinghies of the 19th century and earlier had a sculling notch cut in their transom. The notch was about ¾ inch wider than the sculling oar. Sculling now is almost a lost art and few dinghies have a sculling notch in the transom. However, the Pardeys, who have sailed the globe, are able to scull their engineless *Taleisin*, with 17,900 pounds displacement, in and out of harbors and anchorages at about 1½ knots (with no wind) using a sculling oar.

Wrists are rotated downward to feather the oar blade.

Montgomery 23

A neglected Lyle Hess classic receives royal treatment

by Karen Larson

SERENDIPITY BROUGHT A cherished cult boat into the hands of Bob and Sylvia Mann, and remarkable good fortune will bring this gem to another owner someday. The gem is a 1979 Montgomery 23, one of perhaps fewer than 20 built, a much sought-after prize among Montgomery owners everywhere.

Jerry Montgomery began Montgomery Marine in Costa Mesa, California, in the early 1970s to build dinghies and eventually a line of Lyle Hess-designed Montgomeries: 15s, 17s, and 23s. The 17-footer was the first, introduced in 1973 at the Newport Boat Show. Over the years a couple hundred were built. It was followed by the 23 in 1978 and the 15 in 1980. (Since the number of boats built was relatively small and, as they are Lyle-Hess designs, Montgomeries have acquired a high level of prestige among those who have owned or sailed them.)

"There is definitely a cult following," says Randy Palmer, who has owned a 15 and a 17 and has elected to hang on to the 15 even though he now owns and cruises a Cape Dory 30. "Older Montgomery 17s are available in the Minnesota and Wisconsin area because of the reputation Sailboats Inc. [which was selling them] developed here. California is another hot spot for obvious reasons. Otherwise, they are rare and not as well known. The Montgomery 15 is hard to find used. We looked unsuccessfully for two years. When we heard that Jerry Montgomery was talking about selling the molds to Edey & Duff, we decided to buy a new one and keep it forever. It was one of the last ones he built before retiring in the summer of 1993. It's even more difficult to find a 23. You *really* have to look for one of these."

Unaware of status

Bob and Sylvia knew none of this, however, which made locating their boat easier. They were looking for a Pacific Seacraft Flicka or Dana when a broker brought the Montgomery to their attention. They lavished love and quite a few dollars on their discovery, named her *Misty*, and made her better than new. When they're ready to sell this 23, the next owners will have a polished and pampered leak-free sailboat with all the bells and whistles.

Misty was neither polished nor pampered, and certainly not leak-free, when Bob and Sylvia first laid eyes on their future boat sitting in six inches of oozing red mud on a trailer with three flat tires. The bright yellow hull was not to their taste either. They recall it as "school bus color," and still shudder at the recollection.

Sylvia was particularly wary. She didn't relish the idea of tromping through the red ooze to view this boat closely, and she denied ownership when they towed it home some weeks later. "I didn't even want to trailer it home to Minnesota," she says. Ignoring it behind the tow vehicle, she'd laugh, "I don't know this boat. It's just following us home."

> *"Ignoring it behind the tow vehicle, she'd laugh, 'I don't know this boat. It's just following us home.' "*

It was Bob who trod through the mud and who saw the possibilities. "Inside there was teak and ash. The hull was thick and solid. There was a perforated toerail. There were other good features. I realized I was looking at something very sound . . . something built very well for a boat so small," he says, noting, "once Sylvia saw it, she was impressed with the interior."

Misty had started life as a MORC-rated racer in a fleet of sleek and

serious raceboats on a large lake in suburban Minneapolis. Named *Big Bird*, she wasn't in her element there. Her Lyle Hess lines encourage cruising and gunkholing, not short trips from buoy to buoy. Among the racers of the Wayzata Yacht Club, her charms remained hidden. But elsewhere in the country her sister boats were gaining cult status among a group of Lyle Hess devotees. Next *Misty* was moved to Lake Superior by another owner who named her *Buttercup* and neglected her.

Started earlier

Bob Mann's own sailing story began much earlier, at age 16, sailing a friend's scow on a small lake near downtown Minneapolis. He learned to sail by pulling on lines and seeing the effects. In fact, he courted his future wife aboard that boat. Marriage and children followed. Throughout these years, Bob and Sylvia were friends, each with a different spouse. The foursome liked double dating and, once married, getting together as couples. Many years later, after the death of Bob's wife, with Sylvia newly unattached, they renewed their long-time friendship on a different level, marrying in 1993. That day, Sylvia jokes, she "became a Mann."

Bob's sailboat ownership began with an Aquarius 21 in Minneapolis and then a Pearson 33 in Florida. He and his first wife bought a home on a Florida canal with sailboat ownership in mind. He made a $1,000 deposit on a 45-foot hull that was to be owner-completed. This was a Morgan racing hull with a center cockpit ketch rig sold by Starett and Jenks of Clearwater, who bought the Morgan mold. But once he started doing the math, he realized that he'd soon be head over heels into a very expensive and time-consuming project.

"I'm very handy. I've learned a lot about boats since. I could take on that project now," he says, "but I'm not sure how well it would have gone then." Rather than throwing good money after bad, he kissed his $1,000 goodbye. Sometimes common sense is the better part of valor.

"Misty was neither polished nor pampered and certainly not leak-free when Bob and Sylvia first laid eyes on their future boat sitting in six inches of oozing red mud on a trailer with three flat tires."

Bob went on a quest for a sailboat to tie up in front of his home in Crystal River, Florida. That search led to the Pearson 33, named *Seanote*, on which he lavished his skills as an engineer and handyman. He earned his USCG six-pack license and offered daysail charters and overnight cruises. He joined the U.S. Power Squadron and taught classes. A move back to Minnesota and his wife's ill health caused him to sell the Pearson.

Hurricane cruise

One great sea story goes with this boat and begs to be retold. Bob and crew took a cruise from central Florida to New Orleans on *Seanote*. Bad timing dictated, however, that they'd encounter a hurricane before arriving safely home. They were partly home when they learned that the latest tropical storm had been given a name: Bob. When a hurricane has your name on it, you should get the heck off the water.

They ducked into Carrabelle but had to pass under a bridge to get to sheltered waters. The storm surge had raised the water levels to the point that it was not clear whether they'd have sufficient clearance under the bridge. But they were running out of options. So under full sail and heeling at a precarious level, they passed beneath the bridge with inches to spare.

Picture a sailor like this back in Minnesota again and boatless. A new quest found Bob the second Aquarius 21 of his life. By this time he and Sylvia had married, and together the two discovered that the lack of headroom made the Aquarius too uncomfortable for Bob's 5-foot 11-inch frame. At 5 feet 3 inches, even Sylvia lacked standing headroom.

This led to the search for a Flicka or Dana and the serendipitous discovery of a forlorn yellow Montgomery 23 up to the hubcaps in mud. Since that day, *Misty* has been Awlgripped white to gain Sylvia's approval. And Bob has been on a crusade against leaks, sealing the portlights with RTV and sealing every leaking bolt at the hull/deck joint with polysulfide. He's

Lyle Hess' popular design, the Montgomery 23. *Misty* shows her spunk in a late fall blow on Lake Superior, on facing page. Bob and Sylvia Mann and *Misty* at right.

installed two adjustable 5-watt solar panels, since *Misty* is pushed by a 9.9-hp Evinrude outboard. He added a second battery and, while he was at it, moved the battery switch and both batteries to the starboard side to improve the balance of the boat. He also added a steaming light, spreader lights, and lightning protection.

Beautiful teak

Woodwork is Bob's specialty also. He says, "I like wood, especially teak, on a boat. Outside it's a pain, but inside it's beautiful." *Misty's* wood, both inside and outside, has been carefully restored and maintained.

In addition, he had a split Bimini built to accommodate the mainsheet; built a swing-out panel to display GPS, speed, 3-D depth, and water temperature in the cockpit; invented a television antenna mount for dockside use; modified the rudder (taking several inches off the bottom); and reinstalled the stanchions, adding a couple of inches of walking space in the process by moving them to the toerail. In addition, he beefed up the cleats and chocks on the foredeck, revised the sanitation system, added a second bilge pump, and in general spiffed *Misty* up until she's better than new. She's a gem. Still . . .

> *". . . these boats have acquired a high level of prestige among those who have owned or sailed them."*

"Do you remember playing house?" Sylvia asks, recalling children's tea parties and miniaturized toys. "We're always trying to do things better, more cleverly limiting our personal belongings on our trips to the boat." *Misty's* ultimate fate is sealed when she adds, "I like this boat, but I wish it were a *hair* bigger."

Even Bob admits — reluctantly — that this boat is much smaller than his Pearson. "It is a normal progression of thinking when moving from one boat to another," he says. "The really hard thing is that when you want to have a trailerable and reduce the boat size from 33 feet to 23 feet, you still try to take all of the gear and features onto the smaller boat."

Ah, well, Montgomery lovers everywhere will be standing in line when *Misty* goes on the market.

***Misty's* interior, above, is cozy and inviting. Sylvia takes the helm at left. Bob does the deck work and sheet trimming.**

Montgomery Resources

Montgomery Sailboats Owners Group: <http://www.msog.org/>

Montgomery listserver: Anyone with an interest in Montgomery boats is welcome on the list. The membership of 100 includes original builder Jerry Montgomery and current builder Bob Eeg. To subscribe, send mail to <majordomo@xmission.com> with only "subscribe montgomery_boats" in the body of the message. You will receive an automated reply message with a "cookie" that must be returned to confirm your subscription. Instructions are included in the message.

Keith and Karen Diehl's Montgomery website: <http://www.xmission.com/~kdiehl/>

Nor'Sea Yachts (has redesigned the 23 and is producing it in limited numbers): <http://www.montgomeryboats.com>

Trailersailer trio

An architect crunches the numbers to compare performance

by Ted Brewer

The Montgomery 23 and the two similar small cruisers in this review are classed as "trailersailers." The problem with all of the three is that, as candidates for trailering, they are a load. Many people trailer and ramp-launch boats this size, but I tried it once with one of my Nimbles and said, "Never again." You have 3,000 or more pounds of boat behind you, loaded with 500 pounds of equipment, food, fuel, water, clothes, books, and other cruising gear. That's all sitting on a 1,500-pound trailer that backs up like a reluctant sow. That was not for me!

Having said that, these boats can be trailered if you have a full-sized car or, even better, a van or pickup truck with an engine of about 350 cubic inches and preferably larger. Ideally, a four-wheel drive, diesel-powered pickup will give you more reasonable fuel mileage and will have the traction to tow the boat up a slippery, slimy ramp when it comes time to haul her.

I won't compare their trailerability except to say this: the lighter the boat and shallower the draft, the better. Let's look at their merits as small sailing cruisers instead.

Looking at their high capsize-screening factor and the low motion-comfort figures, we can agree that none of these boats are Cape Horners, but I'll bet someone will sail one of them to Hawaii, if it hasn't been done already. I can guarantee that I won't be aboard though. Their motion will be quite corky in any kind of a chop, so it would take a strong stomach as well as nerves of steel to cross an ocean aboard one of them.

The boats are all fairly beamy. They need to be in order to offer reasonable accommodations, so they are at or close to the 8-foot limit that was the legal trailerable width until recent years. Rather surprisingly, they are of quite moderate displacement with Displ./LWL ratios of well under 200, and they still manage to carry a good ballast ratio, close to or even well over 40 percent. This bodes well for their safety for coastal cruising, and I imagine that any of them could take a fairly severe knockdown and come up smiling, even if the crew isn't.

Unusually for a trailerable sailboat, the Com-Pac 23 is a keelboat; her lack of a centerboard, coupled with very shoal draft, will put her at a disadvantage when beating to windward. Her long, fat keel also adds wetted area and will increase resistance when reaching and running. Still, with a high SA/Displ. ratio, she won't be a sluggard either, and she'll provide a lot of cruising pleasure for a small family.

The O'Day 23 appears to be a good all-around small cruiser, but my preference is for the Monty 23 with her slightly heavier displacement, good ballast ratio, and longer waterline. I'll qualify that by saying that the 515-pound lighter O'Day might be the better choice where trailering is an important factor in selecting a small cruiser. Regardless, when it comes down to the mighty dollar, any of these three could be a good choice for a first boat or a small family cruiser, depending on the price and condition.

Montgomery 23

Com-Pac 23

O'Day 23

	Montgomery 23	Com-Pac 23	O'Day 23
LOA	23 ft. 0 in.	23 ft. 11 in.	22 ft. 9 in.
LWL	20 ft. 10 in.	20 ft. 2 in.	19 ft. 6 in.
Beam	8 ft. 0 in.	7 ft. 10 in.	7 ft. 11 in.
Draft	2 ft. 5 in./4 ft. 11 in.	2 ft. 3 in.	2 ft. 3 in./5 ft. 4 in.
Displacement	3,600 lb.	3,000 lb.	3,085 lb.
Ballast	1,530 lb.	1,340 lb.	1,200 lb.
Sail area	249 sq. ft.	250 sq. ft.	246 sq. ft.
Beam/LWL ratio	0.384	0.388	0.402
Disp./LWL ratio	177.7	163.3	185.7
Bal./Displ. ratio	0.425	0.447	0.389
SA/Displ. ratio	16.96	19.23	18.59
Capsize screening factor	2.09	2.17	2.18
Motion comfort	16.12	13.95	14.7

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in the locker, you'd probably have success removing the streaks with ordinary boat soap. Solve this quandary by trying Windex or Boat Zoap.

Environmental concerns

The environmental impact of adding chemicals to the waste stream is a large and comprehensive subject beyond the scope of this article. However, it behooves us all to be aware of our relationship with the marine environment and to use chemical products responsibly. The careless use of cleaners can introduce harmful chemicals into our environment. Obviously we must exercise great caution with highly toxic products like acetone. Likewise, ingredients that are not toxic, but are highly disruptive to the natural environment, must be used carefully. For example, most manufacturers of cleaning products have stopped using phosphates because their excessive nutrients can trigger algae blooms and die-offs, upsetting entire ecosystems. Whenever possible, we should consider using "green" or biodegradable products — cleaners that will break down biologically into harmless byproducts. Responsible manufacturers are rapidly bringing more green cleaners to the market.

Government regulations aimed at producing environmentally friendly products continue to multiply. Some states, such as California, have established laws calling for more rigid labeling and information than the federal government requires. Thanks to legislation (notably the Clean Waters Act) and public concern about the environment, major steps have been taken through the Environmental Protection Agency and corresponding state agencies to minimize the impact of chemicals being introduced into our waste stream.

Marinas and ordinary gas stations have receptacles to collect waste oil and fuel. Batteries are returned to the manufacturer for disposal. The nozzles of fuel pumps are fitted with collars to capture fumes. Tributyltin, a highly toxic chemical, has been removed from most bottom paints. Many solvent-based paints are now manufactured with higher solid contents, which means that smaller amounts of toxic solvents evaporate as the paint dries. Manufacturers of cleaners have consistently moved toward biodegradable ingredients. All of this is progress, but it's far from finished. Until the consumer refuses to purchase products that disrupt the environment, harmful chemicals will continue to be released into the waste stream.

Many of us assume that environmentally friendly products are less effective than their harsher counterparts — that using "green" products will always involve a tradeoff in effectiveness. This simply isn't true. For example, Simple Green is a concentrated, powerful grease-buster that is nontoxic, noncorrosive, and biodegradable and contains no harsh chemicals. Even consumers for whom environmental impact is not the top priority should try some of the "green" products.

Go easy with harsh cleaners

It's human nature to reach immediately for a product you know will clean anything. But why not try a gentler cleaner first? Being kind to your boat and the environment might

mean taking a few extra minutes but it's worth it. Start with the mildest cleaner and work up to the stronger stuff only if necessary. As an example, begin cleaning dirty fiberglass with a gentle, environmentally safe cleaner like Boat Zoap. If this doesn't do the job, move to a medium-grade stain remover like FSR. If all else fails, pull out Castrol Super Clean, your killer cleaner that can take the skin off an alligator. But save this as a last resort. You'll be surprised how often a gentle cleaner will do the job.

"Often it [water] is the safest and most effective cleaner available, though we tend to overlook it in the frenzied and expensive search for the magic cure."

Worth the trouble

Generally, homemade cleaners (like baking soda or lemons) are non-toxic and best from an environmental standpoint. They tend to be milder, less expensive, and friendlier to your health. Consider these remedies instead of powerful, harsh cleaners that will do the job easily but might damage the surface permanently. If used incorrectly, aggressive cleaners can sometimes etch the surface, allowing dirt and corrosion to adhere more easily the next time. For example, if alkaline household cleaners like Fantastik are allowed to dry on fiberglass, they may eventually etch the surface. When you use them, be certain to rinse thoroughly before they have a chance to dry.

Not all environmentally sound ingredients used in commercial products are completely innocuous. Some are, in fact, quite harsh or toxic. It is a well-known fact that lye can burn your skin or that ammonia will produce noxious fumes.

How safe are they?

Currently, it is nearly impossible for consumers to determine the health and safety effects of every cleaning compound on the market just by reading labels. This information is available, but the customer will rarely see it. The U.S. government requires manufacturers to file Material Safety Data Sheets (MSDS) that identify the major hazardous ingredients in each product. But it is unusual to find a retailer who will provide MSDS sheets. All a consumer has to go by is the primary hazardous ingredient nearly always identified on the label. However, the ingredient listed may not be the only unsafe or environmentally harmful agent; it may not even be the worst offender. Some lesser ingredient that falls below the government mandated minimum percentage level may not be listed though it may be environmentally unsafe. Current labeling regulations don't give us a foolproof system, but they're the only protection we have.

Rules to follow

Though your boat may show the ravages of the years, it is not difficult to have it look like new again. Follow a few simple rules: Keep it as clean as possible with frequent

Cleaning science continued from Page 59

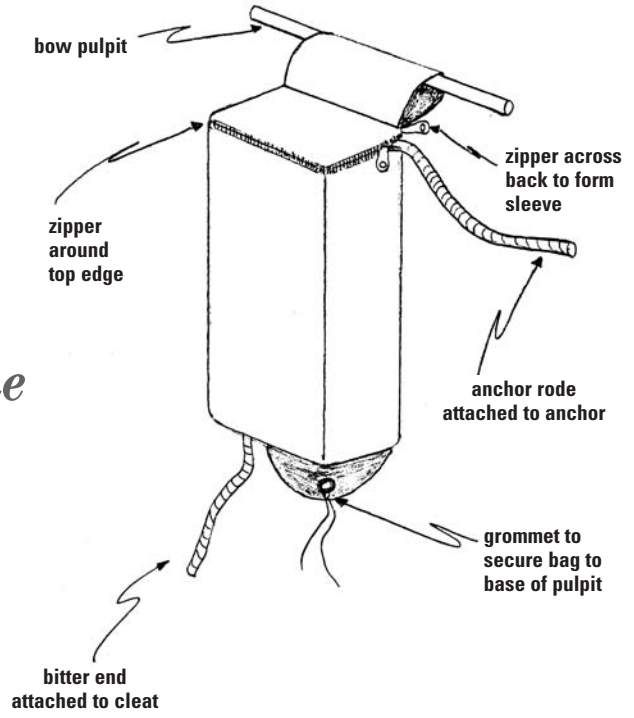
fresh water hose-downs. Determine the severity of the problem so you don't indulge in overkill when cleaning. Learn a little about chemistry so that your choice of cleaners will give the best results. Read the label to help determine if the cleaner is designed for grease cutting or soil removal. And, finally, don't overlook home remedies or environmentally correct cleaning products.

By following a few simple steps in selecting the right cleaner you can bring the lost sparkle and shine back to almost any boat.

Anchor rode bag

A neat and simple way to store the anchor line

by Gregg Nestor



One of the most convenient features found on many newer boats is a dedicated anchor locker on the foredeck. My O'Day 222 lacks this amenity, as do many older trailersailers. When I purchased the boat, I found the anchor and its rode "stored" in the lazarette beneath a tangle of PFDs, fenders, and enough docking lines to tie off the *QE II*. Recalling that someone once said "good seamanship is nine-tenths preparation and one-tenth application," I set about developing a better storage system for my ground tackle.

My goal was to create an arrangement that would afford easy access, provide protection, and be out of the way when not in use. I decided to suspend the anchor from the bow pulpit using stainless-steel brackets.

With half of my ground tackle stored, I directed my attention to the other half: 150 feet of nylon and chain rode, which I had temporarily stored in a paper bag. Eureka!

Using that same grocery bag as the basis for a pattern of what was to become my anchor-rode bag, I added a zippered lid and extended the back side of the bag up and down. The "up" portion was extended 6 inches. When rolled in half and zippered to itself, this formed a sleeve that would be wrapped around the top rail of the bow pulpit. I rounded the 4-inch "down" portion and centered a large grommet near the edge. By adding a short length of line to the grommet, I could secure the bag to the base of the pulpit. To finish it off I added two more grommets, equally spaced, in the bag's bottom. One is for drainage and the rode's bitter end protrudes through the other.

Once the pattern was complete, I took it to the local canvas shop and had it fabricated out of material matching my sailcover. To use it, I mount the bag close to the anchor, loop the sleeve around the top rail of the bow pulpit, zipper it, and tie the bag's bottom to the pulpit base. From inside of the bag, I pass the bitter end of the rode through one of the grommets in the bag's bottom and secure it to a cleat. I then flake the rode into the bag and zipper the lid closed, leaving a short length of rode attached to the anchor to complete the system.

Having my ground tackle stored in this manner meets all the goals I established for easy access, protection for the rode, and getting it out of the way when not in use. Using a #20 paper bag as a pattern provided more than enough room for 150 feet of rode. The extra space turned out to be a handy place to store the gloves we use when deploying and retrieving the anchor.

by Beverly Amaral

Creating that bronze look

From aluminum ports to weathered bronze: a clever fraud

ALTHOUGH WE LOVE OUR BOAT, WE'VE NEVER HAD ANY particular affection for her fixed aluminum ports. Plans to retrofit them are on the to-do list, but at the rate we work it may be years before we get that far down the list. So we were pleased to discover a creative camouflage in the form of a two-part chemical process that transforms any surface into "weathered bronze."

There are a number of two-part products on the market. The one we used is made by Modern Options and was purchased from a craft store, but similar products are available at hardware and paint stores. All operate on the same basic principle: a chemical reaction is triggered by applying an ammonium chloride solution over an initial coat of paint that contains finely ground copper particles. The result is a credible impersonation of weathered bronze without the bother of weathering or the expense of bronze.

We masked the surrounding areas with blue tape before painting. Before beginning the two-part process, we first treated the ports with Alum-A-Prep to ensure good adhesion. We allowed this to dry thoroughly.

Now the process really begins. Prepare yourself for lots

Any aluminum port can be turned into a "faux bronze port" with clever chemistry available at craft stores. (For a color photo, see the table of contents page.)

of attention from neighbors on your dock. They'll want to know what you're thinking, painting your ports that gaudy copper color. Be strong. It will be worth the trauma.

Be sure to shake the first paint bottle well prior to use, as the whole process relies on the reaction of the ground copper particles in the paint and — being heavy — they tend to settle out. Do not thin this paint.

Careful timing

Timing is critical with this procedure; it's advisable to keep your work area small. After you've allowed the initial base to dry, start with one port and apply a generous coat of copper paint using a foam paintbrush. Allow this to dry thoroughly. You're primarily looking for coverage and a little texture adds some realism, so don't be too concerned with achieving a perfect finish, just make sure to cover all of the original surface.

Following the directions for your product, allow the next application to become tacky and then — using another foam paintbrush — apply the ammonium chloride. If the copper paint is too dry when you apply the second part, it will fail to react and stubbornly remain its copper color. If it's too wet, it will run and look streaky. Humidity, temperature, sun exposure, and wind should all be taken into consideration when judging how long to allow the paint to kick before applying the ammonium chloride solution.

There is a learning curve here, but don't be afraid to experiment. You can always start over if you make a mistake. Just apply more copper paint and begin again. Some practice on a similar surface and in similar conditions can reduce anxiety and improve your confidence and technique.

When you're happy with the result and everything has dried, you can add a protective finish. A clear coat is available at craft shops, but we used varnish and found that its mellow amber color enhanced the illusion of age and added depth.

Don't limit yourself to portlights; we have also used this process to transform plastic Dorade vents into "faux bronze." Use your imagination, the options are endless.

Our "weathered bronze" ports have fooled the practiced eye of many seasoned boaters. Over the past four years the only maintenance has been adding an occasional coat of varnish. Now, if we could just find a way to instantly make them into opening ports . . .

by Glyn Judson

Outboard motor hoist

My wife, Marilyn, began singlehanding our 25-foot sloop in the mid-1980s. One problem she had at that time was hoisting our outboard up and into the stowed position. I made a device for her that we call our Easy Hoist. It did the same thing as her arm but with more mechanical advantage and less effort on her part. I put a 1-inch bend on the end so it could be stowed conveniently on the stern rail when not in use.

To make it I attached a Harken #245 Micro block to our split aft stay and then added a Harken #244 Micro block attached to the Easy Hoist. It could be easily adapted to work on a single stay if a suitable means were made to attach the #245. The ⅛-inch stainless steel is 4 inches wide and about 15 inches long. A shorter length would work just as well.

Glyn and Marilyn Judson's Easy Hoist makes it easier for Marilyn to store their outboard when singlehanding the boat.

Jerry learns to use the Weems & Plath GPS Plotter. During the summer of 2002, he developed a real appreciation for this tool.

Thumbs up

Products we've tried and adopted

by Jerry Powlas

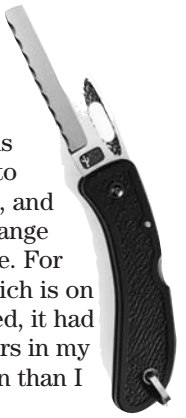
The jury is no longer out. In the September 2002 issue I reviewed the GPS Plotter, which is a clever, three-element, parallel-motion alternative to the ubiquitous parallel rules found on almost every navigation table. This tool has holes drilled in it that can allow the navigator to draw lines perpendicular to the edges of its blades. It was designed to speed the plotting of GPS fixes. In the review I said that Karen liked the tool, but I was not sure yet. Having gotten one of two possible thumbs up, it was allowed to remain on the boat. Well, for the remainder of the summer I rarely used anything else. It is a good tool. I don't often use the holes (old dog, new tricks, and all that), but you don't need to use them to appreciate this fine tool. Two thumbs up now. **Weems & Plath, 800-638-0428, <http://www.weems-plath.com>.**

The cutting edge

Sailors can be divided into two groups, those who carry a pocket knife and those who do not. Over the years I have found ways to relate to the ones who do not carry a knife. I help them with mine when they are confronted with a problem best solved by this oldest of tools. At home each morning I decide which of the knives in my drawer is most appro-

priate for the tasks of the day, and then I drop that one in my pocket.

Recently, David Boye sent us three of his dendritic cobalt boat knives and asked us to evaluate them. Karen and Mark kept theirs, and I promptly sent mine back, hoping to exchange the serrated blade for one with a plain edge. For me, serrated blades have their place — which is on our bread knife. When the new knife arrived, it had to take its turn in the drawer with the others in my collection. It got into my pocket more often than I thought it would.



The Boye Boat Knife comes with a serrated blade, shown here, or a plain edge, which is Jerry's preference.

This is a lot of knife in some ways and not much at all in others. It has a large lock-back blade that can, with a little practice, be opened with one hand. It holds a good edge, is easily sharpened, and is highly corrosion-resistant. This is a very sophisticated, light-weight design, so it feels like a lot of knife in your hand but does not feel like much at all in your pocket.

These days you can buy some pretty fancy-looking knives for about the price of a quarter-pounder with cheese, but they are knockoffs made in the low-rent district from rot-gut steel and Grade Z plastic. If they are put to any hard use, they start to recycle themselves in your hand. I don't mind paying for a good pocket knife; if I buy good quality my grandchildren will be using it someday . . . if they are the type.

The Boye Boat Knife is a special case in knife technology. The blade is made from a cobalt alloy designed to resist corrosion and still be hard enough to hold a good edge. With stainless-steel alloys you can have one or the other, but not both. Ever notice that none of the good wood- or metal-working tools are made from stainless steel? Stainless is really not a tool alloy. This cobalt alloy blade starts out as an investment casting, which does some pretty exotic things with its metallurgy as it cools. This kind of technology is bound to cost more than a blade made from recycled soup cans with a little chrome added.

From all this you'd think this knife would spend a lot of time in my pocket this summer. It will not. Because it is light-weight and completely non-magnetic, it's going to be my new life jacket knife. It will take its turn with the other fine knives in my drawer in the winter. Not bad, since I'm fussy about pocket knives. **Boye Knives, 800-853-1617, <http://www.boyeknives.com>.**

Duffel bag extraordinaire

When we started *Good Old Boat* magazine five years ago, we bought a couple of serious duffel bags to replace a pair of disintegrating bags purchased not too many years before from Target. The new ones from Weekend'R Products cost more, but will outlast the cheap bags by a millennium or more. Designed for sailors by sailor Ken Kloeber, our Weekend'R Deluxe bags have special features we like (such as key hooks and a zip-off shower bag). We chose the colors we wanted and had them personalized with our names and our brand-new logo.

What's to mention five years later? Durability. For five years these bags have been dragged to the boat from trunk to dockcart to cockpit to cabin every weekend and in all kinds of weather. They've flown on many an airplane and gotten dizzy on just as many luggage carousels. They still look great. They haven't lost a stitch. All zippers work. All snaps snap. They're good to go for another five years at least. We hope to hold up as well. **Weekend'R Products, 716-941-6068, <http://members.aol.com/wkndrbag/>.**

The durable and useful Weekend'R Deluxe bags have zip-off showerbags, one large pocket, and three small ones. They're colorful, personalized, and tough as nails.

For sale

Lazy Jack Schooner
1977 (hull #17). Designed by Ted Brewer, built by Ted Hermann. 32' LOD, 10'9" beam, 2'10" draft. New Mack sails, professionally maintained 48-hp Perkins diesel, lots of teak. Sleeps 4 in comfort. A fine looking boat in exc. shape. Great South Bay in Blue Point, N.Y. Includes 6' Avon w/2.2-hp Nissan OB. Asking $32,000.

Doug Shaw
631-589-2124
dougshaw@limaritime.org

Offshore 27
1966. Cheoy Lee Newell Cadet. Sloop rig, diesel inboard, tiller steering. Well maintained. Brightwork, spars, sails, original gelcoat, engine, interior, teak deck, all in nice cond. Standing headroom below w/ample storage above and below deck. Includes steel cradle, gear, etc. In Chicago, Ill. Asking $14,000. Additional photos, other info at <http://www.cheoylee association.com/Sale/Renaissance.htm>.

Bob Mayerhofer
773-847-6147
robert_mayerhofer@hotmail.com

Laguna 26
1983. Fast, dry sloop. Very good shape. LOA 25'9", displ 3900 lbs, beam 8'4". 6'2" headroom. High freeboard. Many cabinets including wine racks. Sleeps 4. 15-hp inboard OMC Sail Drive overhauled, soundproofed. Shorepower, solar battery charger, chart table, 3 ice chests. Marine head, D/S, compass, VHF. 2-axle trailer rebuilt. Deck accessories recaulked '01. Upgraded for extended cruising (including lead weight added). Full set of sails. Near Phoenix, Ariz. Willing to deliver nearby. Asking $8,900.

Ayhan (Ian) Akcar
970-240-0752
aakcar@msn.com

O'Day 25
1976. Great boat; 10 foot-itis warrants sale (want larger boat). 9.9 powerthrust Honda, compass, aquameter, depth, butcher-block table (all new in '02). Harken '91 r/f. Cradle w/trailer. In Muskegon, Mich. Asking $13,500 or possible trade.

Scott Moyer
616-891-2377
sdljmoy@juno.com

Hunter 18.5
1990 pocketcruiser sloop, original owner, freshwater weekender, marina-maintained. Turnkey cond. 2' draft wing keel, trailer, 5-hp l/s '95 Mercury. Full-batten main, CDI furling w/covers, lazy-jacks. Lifelines, tiller minder, extras. Control lines to cockpit. 2 berths and V-berth, stove, sink, cooler, Porta Potti, new battery, full lights, PFDs, Danforth w/rode. Greenwood Lake, N.Y. Email for appointment. Surveyed at $6,900.

Ed Sternstein
413-403-3372 (fax)
edlynn@usa.com

Morgan 28
1972. 3'6" draft. Lightly used. Full headroom. Sails much better than expected. Original interior, Brightside hull and decks. Formerly varnished teak now Cetol. Ports replaced. Heavy rigging. New 316 chainplates. Rebuilt FWC 3GM Yanmar. New waterlift muffler. Mid-boom sheeting, can sail w/full-curtain Bimini up. Boom tent w/bug-screens. Lectrasan manual head. Teak anchor pulpit w/roller. Stern boarding ladder. Lazy-jack/topping-lift and halyard run aft for single-handing. Inflatable w/2-hp Mariner. Clean, ready to go. SW Fla. Asking $23,000.

Dale Harvey
941-474-1708
dhboat@ewol.com

Ericson 29
1976. Beautiful freshwater boat in very good cond. Ready for your sailing season. Spacious, large, bright interior. 4'4" draft, exc. 42% ballast/displ. ratio. Atomic 4, professionally maintained, runs beautifully. Main w/3 reef points, 105 jib w/3 reef, 150 genoa. New cabin cushions/drapes. Custom-made dodger, sailcovers. New head. Autopilot with remote. New barrier coat under waterline. Steel cradle. In Bayfield, Wis. Asking $20,000 OBO.

Stephen Terwileger
715-597-3869
twileger@jackelec.com

Newport 16
Fractional rigged sloop sailboat w/fixed keel. Sleeps 2. Cabin cushions in exc. cond. 3 sails (nearly new), new jenny. Heavy-duty trailer. Boat, sails, trailer all good cond. Asking firm $1,200.

Larry Spencer
814-425-8311
drspence@toolcity.net

Pearson Triton 28.5
One owner past 35 yrs. New standing rigging, ball-bearing r/f. Garhauer mid-boom traveler. Good main and headsail. '81 Atomic 4 good cond., pressure water, stainless fuel tank. VHF, Loran, 4 anchors. Many spares. Downeast Maine. Delivery on NE coast can be arranged after topsides refinishing of mahogany. 5 Brownell stands. Never raced. Cruised from Block Island to Nova Scotia. Owned by editor of Triton Club Improvement Bulletins. Asking $7,700.

W. H. Bell
207-963-2390
wonsqueak@prexar.com

Catalina 22
1981. Freshwater, sweet sailing, easily towed & launched. 2250 lb, beam 7'8", draft 5'2". Poptop, swing keel, ladder, kick-up rudder, Garmin GPS, AM/FM, D/S, fish-finder, new VHF. EZ-Loader trailer w/rollers. Anchor, fenders, dock-lines, lifelines, whisker pole, topping lift, one-person mast-raising. Cetol and varnish, new anti-fouling, 2 batteries, Porta Potti, 7.5 Merc., Windex, compass. Asking $4,500 w/electronics. $4,000 w/out.

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

Hunter 23
1986. Wing keel 27" draft. Freshwater boat, on galvanized trailer. Many upgrades in '02. Ready to sail. Nice, roomy interior, new cabin cushions, wood in exc. cond. Pullout sink and stove, pulldown table. Porta Potti. Big cockpit. 5-hp Honda. Elephant Butte, N.M. Asking $5,995. Consider trade for 25-28' coastal cruiser, reasonably priced, must have trailer.

Ron Stephanson
505-744-4242
darlene@riolink.com

Sunray 21
1974. English-built twin keel, North Sea-capable standup cabin, beam 8', draft 3'6". Tiller steering, new battery '02, solar charger 10W, VHF, depth fish finder, AM/FM/cassette, V-berth, convertible dinette, galley w/sink, water tank. Enclosed head w/Porta Potti and storage. Mainsail w/2 reef points, 2 jibs. Tandem trailer, 7.5 Nissan L/S OB motor. Ready for sail. Asking $4,000 or trade for 25-30' shoal-draft sloop or motorsailer w/trailer.

Charlie Perry
731-968-2936
cblizard@joimail.com

Pearson 27
1990. Rare late-model Pearson, exc. cond. Diesel, W/S w/new leather. Harken furling, 135% and 155% genoas and main w/2 reefs. New rigid vang, running rigging, Simrad WP-30 autopilot, Raymarine Tridata. H/C pressure water and shower. 6' headroom in beautiful teak cabin. 6 opening ports w/screens. Wing keel 3'4" draft. VC-17 bottom. No expenses spared since new. In Wis. Asking $29,750.

Chris Conklin
920-734-0555
Cconklin@new.rr.com

Tayana 37
1983. Cutter rigged. Sailed Great Lakes until '95. Then East Coast, Florida Keys, Bahamas. Very well maintained; ready to sail. Fiberglass decks, recently rebuilt Yanmar 3QM30 (125 hrs), 5 sails, 4 anchors, windlass, new standing/running rigging, Harken furler, newly painted/rewired deck-stepped aluminum mast, Autohelm, GPS, solar panels, new dodger, Bimini,

3-burner stove w/oven, fridge. Comfortable, spacious custom teak interior w/exceptional storage for extended cruising. Green Cove Springs, Fla. Asking $79,000. Please visit <http://www.yachtfreyja.com>.

Robert and Gerlinde Lindy
513-325-7009
RMLindy@aol.com

Newporter 40
1959. Pilothouse ketch. Classic. Our home for 12 yrs, 3 yrs traveling. Interior rebuilt for comfort, repowered for strength, hydraulic windlass for anchoring insurance. Northern winters heated by Dickinson Antarctic, Southern winters cooled by ocean breezes through 14 opening ports, hatches. Asking $55,000.

Alain or Judi Knight
410-218-9451
Lebateau@attcanada.ca

Seafarer Tripp 30
1960. Dutch-built. Solid fiberglass w/mahogany coamings and trim. Classic full keel in exc. cond. Total refit '99. Sails even better than she looks, and she's stunning! Yanmar diesel, new full-batten main and jib '01, new VHF, Garmin GPS, depth sounder, tiller steering, Lifesling, Danforth anchor, spacious cockpit and standing headroom below; sleeps 4. Equip. list on request. In Ossining, N.Y. Asking $19,500.

Mike Beil
mikebeil@yahoo.com

Ericson 36
1976. Cruising cutter. Constantly upgraded, spacious 3-cabin layout, A/C, full canvas, davits, refrig, propane, H/C pressure water, UK sails, windlass, 300' chain, 6001ST Autopilot, watermaker. Ready to cruise. *Sky Lark* was the feature boat in *Good Old Boat*, Nov/Dec '00. In Fla. Asking $58,500. More pictures, equipment, and upgrade list available upon request.

Alan Hauch
386-441-0050
Bahamasailing@aol.com

Pearson 33
1988. Full-batten main w/jiffy reefing, 165 furling genoa. All lines lead to cockpit. Dodger. 18-hp Yanmar diesel. 4'2" draft. Sleeps 6: Queen-size aft, large V, convertible settee. Full head w/shower. 2-burner propane stove, oven. 5-cubic-foot icebox w/chart storage in lid. 6'3" headroom. 50-gal freshwater, 18.5 gal diesel. D/S, VHF, AM/FM/cassette. Asking $56,000.

Ric Bauer
804-644-0049
ces.blueskies@mindspring.com

Ericson 28+
Bruce King boat show special. Custom refit '01. Highly modified bluewater/coastal cruiser. New cushions, shades, fireplace, two showers, compost head, gel batteries, full electronics, stereo, ST winches, jiffy reefs, helm seat, Dutchman, r/f, freshwater diesel, dual anchor windlass. Located Maryland. Bristol! New 9+ survey. $56,500.

John Hollenbach
301-855-3851

Herreshoff 32
1932. Hull #3 from MIT plans. Authorized reproduction boat built '96. LOA 32', LWL 20', beam 5'6". Cedar planking, oak ribs, bronze fastened. Forerunner of the Fishers Island 23. These long, narrow, easily-driven hulls are a European concept introduced here by Herreshoff. Custom trailer, storage/docking covers. 3-hp OB on bronze motor mount allows motor to be stored in cabin when sailing. A classic Sunday racer. Kansas City, Mo. Photos on request. Asking $38,000.

Larry Gillen
816-454-1386
larry_gillen@yahoo.com

Pearson Renegade 27
1968. Well maintained and in exc. cond. Lifelines newly installed. Trailer included. Asking $10,000.

Wesle Utgard
254-622-3412

Cape Dory 26
1988. Exc. cond. Extensive quality additions. Set up for singlehanded sailing. Trailerable. Can be rowed, sculled, powered. A great deal of attention has been given to simplicity, quality, and reliability to make her an unstoppable cruising vessel. Go to <http://www.ridehound.com/sailboat.htm>. Near Beaufort, N.C. Asking $20,900.

Terry Hassler
303-725-2562
terryhassler@yahoo.com

Catalina 25
1983 fin keel. Very nice orig. cond. Poptop w/enclosure, traditional interior, alcohol or propane stove, marine head. Had little use. Cushions in exc. cond. New running rigging. Main, jib, genoa exc. cond. Bottom epoxy barrier coated, shows no problems. Includes 7.5-hp Honda OB, Trail-Rite trailer w/extendable tongue and cable launch system. Eugene, Ore. Asking $9,450.

Bruce Ebling
541-688-6872
bruceronda@peoplepc.com

Westerly Centaur
1972. 26-foot gunkholer. Well maintained, affordable twin-keeled family cruiser. Holds her own against bigger boats and provides secure sailing whether in weather, exploring harbor islands, or resting on tidal flats. A solid sloop w/6' headroom, berths for 6, dining for 4, a head, auxiliary diesel power to spare, much more. Asking $9,900.

Rich Murray
617-985-1743
mspindrift@yahoo

Pearson Invicta II
1967. Hull #108 of 13 built. Hood main and genoa (Harken furler) exc. cond. Extra jib, genoa, drifter, spinnaker. New Autohelm depth, new pressure water, flag blue Awlgrip hull. Original wood boom. Atomic 4 (starts every time, runs great). A piece of history in fantastic cond. and only requires modifications to suit individual owner's needs. Eastern N.C. Asking $45,000.

Brian Word
252-353-8362
WindwordII@aol.com

Margaret D 25
1974 cutter-rigged ketch. Solid coastal cruiser. Fiberglass w/mahogany trim. '99 Universal 20-hp diesel. Sleeps 4 (2 in comfort). Minimal galley w/gimbaled stove. New r/f sails. Will prepare and launch w/all Coast Guard-required safety equipment and VHF radio. In Boston, Mass. Photos available. Asking $12,500.

Bill Kane
617-305-5744 (days)
617-282-4436 (nights)

Beneteau 235
1987. Bristol cond. Extensive refit winter '03. New: interior carpet, mast, graphics, bottom, engine mount. All exterior woodwork removed/refinished. Cushions professionally cleaned. Honda 7.5 included. Trailer completely reworked. New: paint, winch, bunk cushions, bearings and Bearing Buddies installed. Newer tires. New carpeted bow pulpit mast support. Call for pictures, info. Asking $14,900.

Hal Newell
952-442-6364 (day)
952-401-0111 (eve)
Ficadoor@aol.com

Pacific Dolphin
Previously made by Yankee. A very stoutly constructed, S&S-designed cruiser. Beautiful traditional lines, solid. Sails like a dream. Purchased 4 years ago and kept in heated garage. Hardware has been removed, reworked or polished. Woodwork removed and stripped, waiting for the purchaser's desired finish. Many new items (6 opening bronze ports, Furlex furler w/150 genoa, more). Call for pictures, info. Asking $6,900.

Hal Newell
952-442-6364 (day)
952-401-0111 (eve)
Ficadoor@aol.com

Elk 30
1972. Custom-built center cockpit cutter. Shoal draft, full keel. Atomic 4. Teak deck and cockpit. Rigged for singlehanding w/halyards led to cockpit. One-of-a-kind boat built in Neenah, Wis., sailed on Lake Winnebago for nearly its entire life. Must be seen to be appreciated. In Wis. Asking $14,500.
John Nelson
920-739-6789
bnelson@milwpc.com

Bluewater Pocket Cruiser 25
1986 by Eastsail Yachts. Demo model w/lots of extras. Airex hull and trunk cabin 4 times stronger lb for lb than all-glass. All-teak exterior/interior trim, timeless design and well-equipped. Like new tanbark sails. Surveyed fall of '01 and valued at $55,000. Asking $42,000. View at <http://www.eastsail.com>.
Gerry Newcombe
603-224-6579 (day)
603-226-0500 (evening)

Cal 34
1969. Lapworth design. LOA 33'3", LWL 26', beam 10', draft 4', ballast 3,750, displ 9,500. Deck Awlgripped and fittings re-bedded '97, teak trim, alum mast/boom, tiller (Tiller Master self-steering avail.), mainsail 1998, 150% genoa furler, club-footed jib, spinnaker, Universal diesel 1987. 25 gal fuel. 100 gal water (2 tanks). 50-lb icebox; 3-burner propane stove w/oven. Bruce and Danforth anchors w/100+ feet rode. Bimini, hatch, and companionway screens, depth, ship-to-shore radio, AM/FM radio cassette. In Old Saybrook, Conn. Asking $22,500.
Stuart Carlisle
207-371-2817
JSCarlisleDR@AOL.com
or Doug 203-245-2159
(weekdays)

Rhodes 22
1976 sloop. Fast, comfortable minicruiser. Sleeps 4. Major refurbishing in '02 including new electrical, updated interior and galley. Custom fabricated trailer, '01 Yamaha 9.9-hp, 4-stroke OB less than 10 hrs. Long list: new parts, improvements. Very good cond.; ready to sail. Inventory list, pictures o[illegible]est. Southern Conn. Moti[illegible]ell (already purchas[illegible]oat). Asking $6,500
SOLD
S[illegible]Bradley
[illegible]526-1891
rhodes2[illegible]orsale@sbcglobal.net

Chesapeake 32
1960. Philip Rhodes fiberglass classic. Hull #1, full set of sails incl. spinnaker, Westerbeke 26G, Kenyon mast '90, new cushions '99. Northern Chesapeake Bay. Asking $16,500 (reduced) OBO.
Fred Wilson
610-644-0649

CSY 37
1979 cutter. 2 staterooms, 2 heads, 3 sails, 2 anchors. Perkins 4-108 50-hp, new cushions, H/C water, 3 batteries, D/S, 120-V panel. Big cockpit, 6-ft draft. Ready to sail. Asking $36,000.
Peter Martini
516-365-9106
piermartini@att.net

Cape North 43
1980. Cutter rigged, aft cockpit, Ted Brewer design w/custom interior. New engine '99. Numerous upgrades '99-'03. 10 good sails from spinnaker to trys'l. Storage, spares galore, large shower, 6'8" headroom. 2nd owner. Boat's ready to cruise again, wife's not. San Francisco Bay. Asking $130,000.
Jay True
707-545-3562
ejtrue@earthlink.net

Hunter Vision 32
1989. This Hunter's known for spaciousness and will surprise you. 3GM30 Yanmar diesel. Lots of stuff onboard. Visit my site: <http://members.cox.net/rkowalke/V32.htm>. Your spouse will love it! You'll either love or hate this sailing boat. Check it out and see which one you are!
Robert Kowalke
757-545-4117
rkowalke@cox.net

Pearson 24 Lark
1968. Dark blue hull, LOA 23'6", LWL 18'6", beam 8', draft 4' displ. 4300 lbs, ballast 1800. Wood cradle, 9.9 Evinrude L/S. SA 276 sq ft (2 sails). Roller reefing, non-skid, Porta Potti. Long Island, N.Y. Asking $4,500 OBO.
Jeff Smith
631-265-2283
smithnvgtr@aol.com

Cape Dory Typhoon
Mini-yacht w/teak trim. Nissan OB. LOA 18'6", LWL 13'11", beam 6'3", draft 2'7", displ. 2000 lbs, ballast 900 lbs. Main, jib, genoa (all restitched, good cond.). Sailcover, ground tackle, docklines, 2 winches, Porta Potti. Sleeps 2 adults in V-berth and 2 children in quarter berths. Full keel, attached rudder. Sails like a dream come true! SE Virginia. Asking $3,900.
Steve Nelson
757-488-0233

Pearson Ariel 26
1962 hull #194. Light beige, full keel, freshwater sailed, 5'8" headroom, sleeps 4, 27-gal. stainless water tank, swim ladder, integrated ice chest, portable head, sails good cond.: main, genoa 150%, jib, storm jib, spinnaker w/pole. Well-maintained Johnson 9.9-hp, recent steel cradle. Needs some fiberglass fixing and antifouling, original documents. Info at <http://voile.org/fhome.htm>. Asking $9,500 CAN or $6,300 US.
Fernand Girard
514-745-6327
fernandg@pentagon.ca

Hinckley Bermuda 40
1964 custom yawl. 1 family most of her life. Westerbeke 46 w/1260 hrs. Autohelm 3000, D/S, Furuno 2000 radar, VHF, Loran, AM/FM/CD, brass fireplace, more. Draft 4'1" w/board up. Classic sailer. More pictures: <http://www.picturetrail.com/gallery/view?p=3&members=1&uid=450721&gid=1692466&imgid=12547472#top>. Asking $119,500.
Joe Scafario
609-398-8400

Hughes 38
1969. Fiberglass classic S&S sloop. Rebuilt Atomic 4, updated sailplan and sails, good hull and decks, always in fresh water. Actively cruised 1,000+ miles every summer. A great sailer; ready to sail! Asking $29,500.
Erik Saxon
231-929-0979
ees@chartermi.net

Grampian 26
1974. Full keel, tiller, OB choice of 9.9 extra-L/S Mariner or 7.5 L/S elec.-start Mariner. Main w/cover, 110 furling, anchor/ground tackle, cushions, alcohol stove, Porta Potti. In Saugatuck, Mich. Asking $5,000 OBO. Will consider a full or partial trade for a trailerable in the 22- to 26-foot range, similarly equipped.
Robert Former
269-948-7567
rformer@voyager.net

Rainbow 24
1962. Fiberglass S&S-designed sloop; fin keel, cradle, OB, 2 berths, 8' cockpit, fair to very good sails, VHF, many upgrades. Very

responsive but forgiving. Some are still used by Annapolis Sailing School. Cleveland. Asking $2,650.

Bill Bilchik
440-243-3648
Wabilchik@aol.com

Classic 31
1969 ketch in top cond. Great Lakes boat. Full keel, well-maintained Atomic 4, cradle, recent survey. 6'2" headroom, chart table, pressure water. Shorepower, dual batteries, battery-tender, Autohelm, VHF, D/S, GPS, Force 10. Deck and hull redone '98, antifouling '01. 2 suits sails. Genoa, furler new '99. New halyards/lines, professionally reupholstered, custom cherry/butternut interior. Danforth, new CQR, chain rode. Kingston, Ontario. Delivery possible. Reluctantly asking $28,000 CAN.

Michael Blennerhassett
m_blennerhassett@yahoo.com
613-377-1794

Cal 31
1983. Lapworth design, fin-keel spade rudder. Huge opening hatch and opening port in V-berth for good ventilation. Great storage forward. Porta Potti (marine head and all hookup accessories). Shower and sink. Deep cabinet. Bulkhead-mounted table w/2 facing settees. Overhead hatch. Propane stove and sink. H/C water, refrig. Universal 16 w/new seals, gaskets. Recently reworked main and r/f, sailcovers. Cushions and Bimini great shape. Beautiful, fast boat. North Chesapeake Bay. Asking $33,000 OBO.

Steve Hoffman
410-336-3059
Shof030753@comcast.net

Cape Dory Typhoon Senior
1986. Hull #30. Many upgrades in '02: Doyle full batten main, 140% furling genoa w/foam luff pad, Schaefer furler, Harken blocks, double lifelines, Raymarine ST-60 Tri-data S/D, Sanipottie 2000, Nissan 5-hp OB. Double bow pulpit/stern rail, lightning ground system. Saturn compass, VHF, stereo/CD, bilge pump, Danforth w/250' rode, fenders, docklines. Holland, Mich. Asking $13,000. Email for list, photos.

Doug Hill
616-285-7165
djhill@earthlink.net

MacGregor 26D
1988. R/f 150 genoa, 10-hp Honda 4-stroke, depth, seat cushions, anchor, stove, etc. Good trailer. Overall good cond. Asking $5,900.

Clifford and Fay Groman
530-628-4272
cliffg43@msn.com

Catalina 22
1976. Complete for your sailing pleasure, in exceptional cond. Complete setup for singlehanding. I am only the third owner. Sailed in fresh water only. Impressive upgrade list: Eazy-tilt trailer w/new tires, new Nissan 5-hp 4-stroke less than 20 hrs. Sails in good shape. Asking firm $5,000. Equipment list, additional photos on request.

Herb Landes
814-752-2836
herblandes@penn.com

Cape Dory Typhoon 19
1984. W/galvanized trailer, 6 sails, 4-hp motor, new Bimini. Well cared for, very good cond. Kept in covered storage during off-season. Alabama Gulf Coast. Asking $5,000.

Richard Maxwell
251-368-3331
251-368-1500
rkmaxwell@net1inc.net

Sea Sprite 23
1981. C.E. Ryder-built, classic Alberg design. Hull #743, ivory hull, red boot top. Lovingly and meticulously maintained by original owner. Sleeps 4. Boat, all equipment exc. cond. Includes main, 110, and 150 genoa (both r/f), 6-hp L/S Evinrude, new Bomar forehatch, cockpit/cabin cushions, sailcover, whisker pole, Danforth anchor, Porta Potti, more. Sayville, Long Island, N.Y. Asking $8,500.

Beth Blossom
631-244-2539

Pearson 30
1977. Hull #985. Atomic 4, wheel. Main, working jib, 150. New: head, sheets, halyards '00. Main and working jib cleaned and reconditioned '02. Sailcovers. Sleeps 4. 15-gal. fuel tank, 20-gal. freshwater tank, Whale pumps. Dual batteries. Clean, good cond. Email for photos. West Harbor, Lake Erie. Asking $12,900.

Dan Laity
419-332-9615 (days)
419-862-3053 (eves)
alaity@woh.rr.com

Lord Nelson 41
If you know boats, you already know about the legendary reputation that Lord Nelson yachts have concerning construction, ease of maintenance, and seaworthy attributes. What sets this Lord Nelson apart from the others is its late model, lead ballast, 55-hp Yanmar, and double spreader tall rig perfect for the Northwest. Lots of cruising equipment included. In Roche Harbor, Wash. Asking $184,500. <http://www.rockisland.com/~bradgis/>.

Brad Gislason
360-378-4860

Freedom 33
1982. Cat ketch, fixed keel 4'6", tall rig, conventional booms. Many upgrades. Call for full list. A Good Old Boat of the Year Jan/Feb '03. In Miami, Fla. Asking $40,000.

Therald Todd
305-663-1599
toddtf@earthlink.net

Reinell 26
1974 sloop, 15-hp OB. Custom tandem-axle trailer, 5 sails, 8' dinghy, VHF, auto-tiller, depth, shoal draft, huge interior, 6' headroom. Sleeps 5, pressurized water. Enclosed head w/Porta Potti. Fully equipped, many extras. Delivery negotiable to upper Midwest. Eagle River, Mich. Asking $4,250.

Mark McEvers
906-337-1057
mmcevers@up.net

Catalina 25
1985. Exc. cond. R/f. 8-hp OB flushed after each use. Fixed keel. Bottom paint less than 2 yrs old. Well maintained and finished. A standout. Dana Point, Calif. $9,500.

Jim D'Evelyn
760-247-7472

Cheoy Lee Robb 35
1964. Solid teak hull recaulked/painted, new bright wood teak transom, Yanmar diesel, teak cockpit. Needs rigging, electric, plumbing, and reassembly of interior. V-berth completed, main cabin sleeps 3. 60-gal. fresh water, 30-gal fuel. Baltimore, Md. Asking 19,500.

Howard
800-747-9663
alcobrothers@aol.com

O'Day 22
1984. New sails w/CDI furler, 6-hp Evinrude, galvanized trailer. Exc. cond. In Penn. Asking $6,000.

Eugene Schlecht
570-775-6477
gene1bev@sunlink.net

38' Alden
1937 sloop. Rebuilt '95. New keelbolts, deck and cabin. Diesel, alcohol stove, pressure water, cushions, furling jib, club-footed jib. New head, holding tank. Panama City, Fla. Asking $27,900 OBO or trade for smaller boat. Photos at: <http://www.sheerblue.com/chuckhazen.htm>.

Chuck Hazen
850-579-2588

Venture 22
1980. Freshwater, swing keel, classic sailboat. Loose-footed main, 110 and 135 r/f jibs. Easy to launch and sail. 5-hp L/S OB, DC electricity, shorepower, VHF, Porta Potti, cushions, camper top, fenders and life jackets. In Ill. Asking $3,600 OBO.

Bill Wesender
708-748-7818
bwesender@aol.com

Tanzer 22
1981. Centerboard, white w/green trim. Original gelcoat like new. Fully-battened main, r/f 125 genoa. Yamaha 9.9-hp 4-stroke electric start. Teak cockpit grate. Full cabintop stanchions. Everything 1st-class, ready to go. Located N.J./Delaware River. $5,500.

Len Keimes
856-235-0161
aerosmithconsult@aol.com

Allied Seawind
1981. Hull #201. Sloop, Furlex r/f, dodger, sailcover, Dutchman system, wheel, VHF, depth. Teak toerail replaced '00 by aluminum slotted rail. View at <http://www.yachtworld.com>. In Huntington, N.Y.

Douglas Varley
631-584-4309
nsnautical@hotmail.com

Montgomery 17
1976. Orange hull, new bottom paint. Exc. cond. Including factory trailer. In St. Paul, Minn. Asking $4,500.

Lawrence Piersol
605-338-7245

West Wight Potter 19
2002. Galvanized trailer w/spare, r/f, 4-stroke, premium package and many extras. Stored in garage. In Poplar Bluff, Mo. Asking $12,900.

Lee Reed
573-785-5987

Gear for sale

Folding prop, other gear
Martec 2-blade, LH 16" diam. x 6" pitch. For tapered shaft: 1-1/8" diam. Asking $250. Fixed prop (P.P. Co.): 2-blade, LH 16" diam. x 8-1/2" pitch. For tapered shaft: 1-1/8" diam. Asking $100. Ship's clock and barometer: 4" diam. Face; 5-3/8" diam. casing. Chrome (solid brass) w/screw bezel. Asking $115. Clock (striking): Swiss movement; 8-day wind barometer by Taylor Instruments (range 29 to 31 in. Hg) Asking $125 or $200 for both clock and barometer.

Bob Horvath
905-689-5260
horvath@mcmaster.ca

Air conditioner and more
New, never installed '95 marine air 12,000 BTU reverse cycle A/C. Model VHE12K-H. Includes digital thermostat and water circulating pump, all manuals. Asking $1,100. Also KVH Datascope. Used, exc. cond. Complete in original box. Asking $175. Barient #10 chrome-plated bronze winch. Fair appearance. Cleaned, lubed, ready for use. Asking $50.

Bill Kuykendal
919-362-9455
wkuykendal@earthlink.net

Autohelm AH800
4 yrs old but not been used the last 2. Includes rod extender, tiller bracket (lets unit connect about 8" below tiller), manual. Asking $250.

Don Kerstens
kerstens.don@ont.sysco.com
613-546-1463 (evenings)

Sextant and compass
3/4 Yachtsman sextant, brass w/illuminated vernier in a varnished mahogany box w/internal foam blocking. Asking $450. Sestral Moore steel boat compass w/compensating magnets. Asking $200. Located in St. Catharines, Ontario. Email for additional info.

Edward Wojtecki
905-938-3617
propwashed@hotmail.com

Atomic 4
A4 engine and transmission from 1959 Pearson Triton. Completely rebuilt from the block up. Includes electronic ignition, new rings, gaskets, bearings, valve springs. A new electric fuel pump, alternator, and carburetor. Has 0 hrs since rebuild. The front freeze plug leaks and needs replacing, otherwise like new. In South Fla. Asking $1,500 OBO.

Sam McDougald
561-641-2601
sam0390@bellsouth.net

Genoa 170% from S2 9.2A
Serviceable light-air cruising sail from an S2 9.2A. Only sailed on Lake Michigan. Set up for older Stearns r/f system w/black UV protection. Asking $300; you pay the shipping.

Rick Nelson
847-742-8367
rickn1145@aol.com

Wanted

Sailing rig
Looking for sailing rig suitable for my Boatex 10 dinghy. Something around 55-60 sq ft w/a 1.5" mast diameter.

Jesse Garman
252-633-3941
sailman@pamlico.net

Catalina 27
Looking for a Catalina 27, dinette model. Located in the Northeast.

Pat Rosato
203-748-7849

Seafarer Javelin 38
Looking for whereabouts and other information about the Seafarer Javelin 38. A William H. Tripp design, built ~1961-1965. Up to 23 hulls completed. Most built in Holland 1961-62. View at <http://www.javelin38.com>.

Bruce Wigton
401-423-1093
bewigton@aol.com

Partnership
Looking for a partner for 30' sailboat, Long Island Sound, N.Y.

Pat Rosato
203-748-7849

33-40' fixer-upper
Starving boat school student looking to refit/repair/resurrect a good old boat capable of blue water. 33 to 40 feet. Looking for glass or maybe steel boat that can be realistically done over the next year. Max budget for project is maybe $20,000. Any charity greatly appreciated. In southern Maine.

Dan Ellis
207-712-0390
danellis@wyoming.com

La Paz 25
Looking for a La Paz 25 w/trailer preferred but negotiable. Fair to good cond., but hull and deck need to be sound and seaworthy. Western U.S. location preferred.

Eric Amadio
602-285-9959
tidepoolenterprises@yahoo.com

Misc.

Chesapeake home and boat
Buy a contemporary house w/ lovely sunset views of Ware River in lower Chesapeake Bay and receive a ***free*** (to qualified buyer at closing) classic plastic 20' sloop moored in these navigable (4' MLW) protected waters. For more, call or go to <http://www.gonehome.com> #26949.

John Chapman
804-725-4774

Business for sale
All necessary molds and info to build and market a high-quality electric-powered or rowing version of a realistic 10' fiberglass Whitehall-type dinghy. Offered at $4,500. Details and photos on request. 2 completed boats w/trailers also available w/business or individually. In St.Petersburg, Fla.

John Westpfahl
wstpf@aol.com

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July 2003	May 1, 2003
Sept. 2003	July 1, 2003
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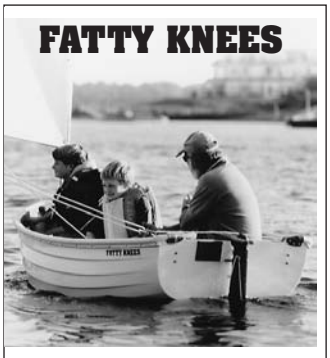
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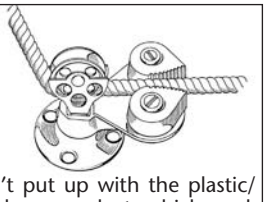

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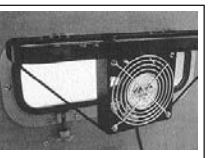

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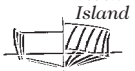

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Gary Mull
You printed some nice letters about Gary Mull in a recent issue (January 2003), and I thought of my only meeting with him. It was at the Seattle Boat Show in the early '90s. As usual there weren't enough sailboats for us, so my wife and I went down to Shilshole. Only two boats were out that day, both Freedoms. It was spitting rain with the wind at 20 to 30 knots, and those boats were just roaring around! We went down to the dock, where the 36 was taking on people, and I realized I was in need of a trip to the head. By the time I returned (on the run in foulies), my wife and the boat were 150 feet out!

Thinking out loud, I said, "I missed the boat!" I don't know where he came from, but a guy right next to me said, "They'll come back for *me*!"

One look, and I knew they would — it was Gary. When he waved, the 36 spun around. We both jumped on as they came past the dock. What a wild ride that was — rail in the water on both tacks; I looked down and saw I was ankle-deep on the port side with the water rushing by. Both Freedoms (the other was a 32) were owned by Seattle-area residents. They showed well and sailed even better!

When our demo ended, another treat was in store; all 10 of us trooped into Charlie's, and my wife and I learned about peppermint schnapps! I can still hear Gary's response to one guy's remark about how good the half-hour ride had been: "It would've been better if I just could've found the spinnaker!"

What a sailor! I hope for his sake (and mine) there are sailboats and wind in heaven!

J. R. Wissler
Missoula, Mont.

The next generation
We are new subscribers to *Good Old Boat* — we love it. We're owners of a 1976 Cal 2-29, which we sail on Puget Sound. We are finding all kinds of great information and inspiration for maintaining it in your magazine. We're also new grandparents and thought you might get a kick out of seeing the next generation of *Good Old Boat* readers.

Sue and Paul Means
Aberdeen, Wash.

Of course, Sue and Paul attached a most adorable photo of a most adorable young lady, Gwenyth Allison, who was four months old at the time of her first sail but is now reaching the ripe old age of nine months. First you have to crawl, or so they say. But then you may move right on to sailing, Gwenyth!

Ohm's law
I enjoyed Gord May's article on electricity (March 2003). I'm familiar with the concepts, but it was a good review, and it was well written. That is just the sort of article that makes me keep my back issues of *Good Old Boat*.

Jim Morrison
Hansville, Wash.

Huge interior

Thanks for the article on the San Juan 21 (March 2003) — it is indeed a popular boat in the Northwest and here in the southeast areas of the country. Not a complaint — just an observation — San Juans are popular, but they would be even more popular if they had the huge interior that you pictured on Page 6. Those interior shots are from her larger sister, the San Juan 23 — I know, I own one of each.

Mike Robinson
Statesville, N.C.

Oops! We got our interior photos from Gene Adams. We assumed that we were working with photos of the 21. Our mothers always told us never to make assumptions. And you see they were right as usual.

How big?

An excellent article on the Seawind (January 2003); I have one potential caveat. One of my duties at La Conner Marina is to measure new tenants' boats for overall length. Like most marinas, we charge by the foot. Often there are surprises to the owners — mostly those who own Bayliners (the Bayliner 2858 is actually 32 feet including bow pulpit and swim step). I usually don't have the same problem with sailboat owners, until today. The owner of a Seawind gave his length on the lease at 33 feet, probably thinking he would add a foot to the 32-foot designation for the pulpit. Imagine my surprise when he measured out at 38 feet! Like most marinas, we measure all overhangs — swim step to anchor. In order to be fair, I had to start at the mizzen boom. If I'm going to measure a boat's fixed equipment, I have to be fair all the way around. Even without the boom, starting at the transom I still got 35 feet.

Why do I tell you this? I'm hoping you can spread the word so that other owners aren't shocked when the marina pulls out the tape measure. I hate to shatter someone's reality like this, but I have to be fair and not just dump on the stinkpot owners. I am truly sympathetic to sailors, being one myself — I started in an Opti pram at 8, been sailing ever since and teaching from 13, lived aboard for three years, held my master's ticket for seven. I am building a Piccolo sailing canoe for my wife and a Bolger Micro for myself, own a Sunfish, and am part owner of an Atkin Eric Jr.

Greg Watson
Anacortes, Wash.

Greg, that must have been the Allied Seawind II, which is said to be 32, rather than 30, feet like Don Casey's boat featured in the January issue. Even so, thanks for the notice to sailors of these and many other boats.

Shipwright Principle

Hats off to Dan McDougal who got it right for those of us who just never could come up with the right word. Shipwright Principle (March 2003) is fine! We've all *known* we were doing something worthwhile as we messed around with our boats, and now we've got a name for it! From this time onward as we go forth seeking perfection, or at least acceptable solutions, at municipal yacht harbors throughout America, all of us will know we're not just killin' time, we're shipwrighting!

Pete Beer
Henderson Point, Miss.

Pink flamingos, too?

I enjoyed the article in the January 2003 issue, "The spirit of the *Monte J*." I purchased the boat in the early spring of this year. The water level at Branched Oak Lake was such that I could not launch the boat — another year for it to be out of the water — so I made the best of the situation and became "Sailor Trash." I plugged the extension cords into an outlet at the storage area, put up the Bimini, turned on the air conditioner and TV, and spent the weekends watching the world go by. I am enclosing a picture of my summer retreat (com-

plete with pink flamingos). The boat is named the *Pretty Lady*[3], and she truly is a lady who just wants to sail.

Norm Agena
Lincoln, Neb.

We called your boat the Pretty Girl[3] *in the article, Norm. Our apologies.*

Prop talk

Aussie Bray's article on propellers (March 2003) was a wonderful survey of a complex subject. I do, however, have one correction. All else being equal, three-bladed props are less, not more, efficient than two-bladed props.

Since propellers create thrust by developing a low-pressure area in front of the blade and a high-pressure area behind the blade, it would seem that more blade area would result in more thrust. But this is not true. The earliest propellers, following this reasoning, were screws as long as the boats. Some of them were even encased in tubes. I am sure it was felt that they were getting a good "bite" on the water as they tried to turn the screw, but it was mostly drag on the large surface area of the blade. The useful part of the screw, as we now know, is only a fraction of the first turn. This leading part accelerates the water backward and in the process causes the pressure differential. The remaining 20 revolutions of screw didn't accelerate the water any more and only provided viscous drag.

Propellers for human-powered water speed-record craft provide examples of the most efficient propellers made. They generally have two blades with a diameter of 12 to 18 inches. The blades have aerofoil cross-sections with the chord length (blade width) of about an inch. This small width is sufficient to accelerate the entire column of water backward even at a rotation rate of less than 1000 rpm.

Propellers for motor craft have wide blades because at high power they give the water such high acceleration that the low pressure on the front of the blade causes cavitation. To overcome this limitation, most props have blades that are somewhat cupped so the leading edge has less pitch than the trailing edge. This shape spreads the water acceleration over the whole blade surface and lowers the peak acceleration. It also spreads the less intense low-pressure region over more of the blade area.

A three-bladed prop also helps prevent cavitation because of the increased blade area. This area increase comes at a cost, however, and that cost is efficiency. The water has high velocity across the face of the turning propeller blade. The drag force is proportional to the velocity difference and the blade area. So efficiency-wise, you are better off with the lower area of a two-bladed prop.

Craig Van Cleve
Lyons, Colo.

Tanzer sailboat resource

It came to our attention that Eric Spencer, who owns Yachting Services in Quebec, is a supplier of replacement parts for Tanzer sailboats. Like so many who are supplying good old boat parts long after the original manufacturers have disappeared, Eric was involved with the Tanzer company when it was operational and was able to continue offering parts afterward. He can be reached at 800-618-6748; <http://www.prop-protector.com>.

Editors

Thanks for including trailerables

I just received the March 2003 issue. As an owner of a "VW Beetle of sailboats" (1981 Catalina 22), I appreciate coverage of trailerables, including the editorial piece, the San Juan 21, maintaining trailers, with more to come! Also valuable are maintenance and do-it-yourself articles to help affordably maintain and improve my boat. I enjoy the articles by Jill Knight, sailboat reviews, sailing adventures, and great photography/graphics. The magazine gets better and more relevant to my kind of sailing all the time.

Steve Bollenbacher
Fulton, N.Y.

While we're adding more on the trailerable end of sailing, we're not taking anything away from the larger cruising sailboats. We added pages to accommodate our trailer-sailing additions, and we'll be adding more pages later this year. We've got many more articles planned about trailering. It doesn't hurt that editors Jerry and Karen just bought a second sailboat, a trailerable. We've got one of each now and hope to become skilled in the fine art of launching, trailering, and trailersailing.

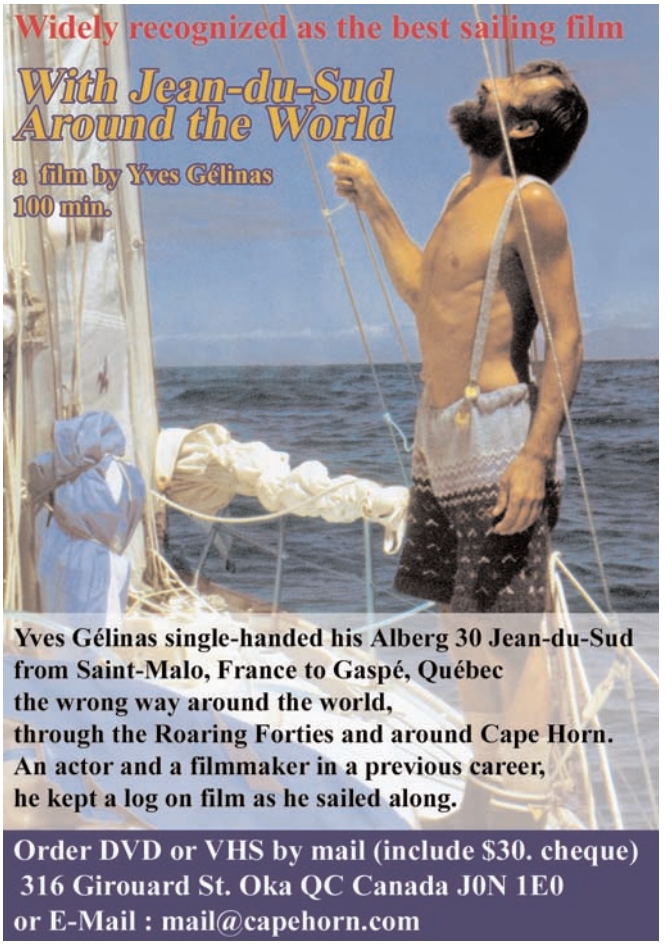
Brion Toss workshops

After he was profiled in the January 2003 issue, folks at Brion Toss Yacht Riggers sent a schedule of Brion's workshops, which are said to be outstanding: Jury Rigging, Oct. 25-26; Advanced Splicing, November 8-9. A few others just missed our publication date, but there will be more in 2004, of course. Call for information: 360-385-1080.

Editors

Deck vents

Thanks for including the article on building your own deck vents in the March 2003 issue. Ventilators are high on my priority list right now. Readers like me, giving serious



consideration to the homemade Dorade box sans cowl option (Peter Bonsey is right — the commercial ones *are* expensive), might also want to check out Bruce Bingham's version, described and illustrated in *The Sailor's Sketchbook* published by International Marine. This book is full of projects suitable for the budget-minded good old boater.

Phillip Reid
Wilmington, N.C.

Dream of Wooden Boats

Knowing how much your readers love old boats, I thought they might be interested in a video I made on the renovation of my classic wooden sailboat. The video is called *Dream of Wooden Boats* and follows the repairs done on *Zephyr*, a 33-foot John G. Alden Malabar Jr. If anyone would like information on how to purchase a copy, they can go to my website, <http:/www.ThirdWaveFilms.com> or call me at 631-728-3084.

Tom Garber
Hampton Bays, N.Y.

Send questions and comments to* Good Old Boat, *7340 Niagara Ln. N., Maple Grove, MN 55311-2655, or by email to jerry@goodoldboat.com. Please limit messages to 150 or fewer words. We reserve the right to edit.

Photos by Bruce Bolster

Crossing the Great Divide

One splash, and "them" turns into "us"

by Alfred Poor

Today, we crossed over. We are no longer one of "them," and now are part of the larger "us." The "us" that have more fun because our boats are in the water. "Their" boats are still up on stands, stuck on the other side of that line between water and dry land.

This may not be a concept that our colleagues in California or along the southern coast can relate to, but I suspect that all along the Great Lakes and in other "temperate" portions of the country, sailors have a visceral understanding of just what a "spring launch" means here on the Chesapeake Bay. It is an uplifting and renewing moment that can transform a person.

For example, consider today. We were supposed to launch last week, but we needed to touch up the bottom paint below the new boot stripe (which we added after we painted the topsides). And we needed to put the registration numbers on the bow and the name on the stern and complete a few other little details that are easier to manage while the boat is up on stands rather than tossing on the briny deep. Maybe our water is not so briny and not so deep, but we're sailors and thus are entitled to occasional wind-blown poetic license.

So as the sun set last night, I was rushing to get the numbers and name in place so we could be ready for this morning's high tide. This, after a busy workday followed by the two-hour drive to the boat. And the old saw about "work hard, get tired, get stupid" applied in spades. The numbers went on fine, but as I struggled to align the name on the stern, the gusty wind caught a corner where I had peeled away the backing, and the carrier sheet folded over, sticking to itself and the beautiful vinyl letters. Twenty minutes of picking at the wreckage only made it worse, and I drove off in a foul temper, with the name in the dumpster, fueling my frustration by thinking of at least a dozen things I could have done to prevent the disaster.

But all that evaporated like dew on the rigging in the morning sun when the yard workers told me that they would put our boat in as soon as they splashed the one that spent the night in the boatlift. And by 9:15, I was helping adjust the docking lines in our new slip. It took all my resolve to resist casting off those lines and heading down the bay — especially once I got the motor running — but I did tarry to take care of a few minor maintenance items before heading back to my desk.

Perhaps this morning in May was made all the sweeter because this is the first time since we bought our boat four years ago that we have placed it in the water before the Fourth of July. We've done a lot of work on her in the off-seasons . . . work that has inevitably spilled over into the on-seasons. But this year we resolved to get in earlier. So even though the new traveler blocks haven't been mounted on the cabintop and we never did install the "new" CD player we purchased three years ago, we're in the water, and we'll be sailing soon.

We've crossed over.