

GOOD OLD BOAT

Still sailing after all these years!



MARCH/APRIL 1999

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This Issue



GOOD OLD BOAT

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Editorial Board

Ted Brewer

Don Casey

George Day

Ron Dwelle

Contributing Editor

Bill Sandifer

Proofreaders

Pat Morris, John Vigor

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Partnership for Excellence, Inc.

7340 Niagara Ln. N.

Maple Grove, MN 55311-2655

phone: 612-420-8923; fax: 612-420-8921

email: karen@goodoldboat.com

web: <<http://www.goodoldboat.com>>

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Creating a community

Good Old Boat magazine is about:

Creating a community of sailors – Through our directory of sailing organizations and contacts, we're developing links between sailors.

Offering a resource – By pooling the knowledge of our readers, we're creating a directory of the suppliers of parts and services we all need.

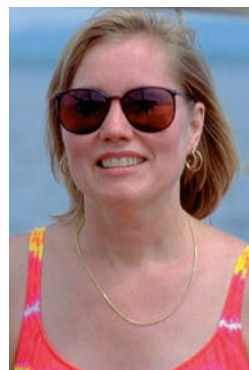
Keeping our boats afloat – Our in-depth technical articles focus on maintenance and upgrade issues and give them the space they deserve.

Celebrating older-model sailboats – We emphasize pride of ownership.

- Call: 612-420-8923; Fax: 612-420-8921
- Email: karen@goodoldboat.com or jerry@goodoldboat.com
- Send letters: *Good Old Boat*, 7340 Niagara Lane North, Maple Grove, MN 55311-2655.

Come aboard!

About the cover...



What you can't see well enough in the cover photo of the Baba 30 is the smile that radiates from Cathy McIntire. She truly bubbles with the joy of boat ownership. This and the other photos of the Baba 30 were shot by Karen Larson and Jerry Powlas while visiting with Ken and Cathy McIntire on Lake Pepin, on the Mississippi River. Their story is on Page 14.



the view from here

Beginnings . . .

Behold the next generation of sailors

Spring is a time to contemplate beginnings. Sailors in the higher latitudes throw off tarps and start preparations for another season. Some among them are beginning their first season. That is a special time.


We get a lot of letters at *Good Old Boat*. Once a day we retire to the kitchen table for “mail call.” The letters are a high point of our day. One beginning sailor sent several letters. The first announced, “I’ve taken up sailing.” It was followed by one that said, “I can go out by myself now.” Both were remarkable for the joy and sheer power that radiated from the simple lines. The power of an enthusiastic and determined beginning will not be denied. This one will be a sailor.

There will be joy, frustration, confusion, and things that never will be fully explained or understood. They will be fully accepted though with the grace that sailors display when being humbled by a sunrise or a breaking wave. This letter writer and beginning sailor will trade bits of power and enthusiasm for the

knowledge of the voyage and believe it to be a favorable exchange.

A sheer rock bluff forms the southeast side of the narrow inlet to Pike’s Bay in the Slate Islands in Lake Superior. Two small trees are growing out of the side of the rock. They began from seeds in a crack. They live about a quarter of a mile from the center of the meteor impact that formed the Slates 400 million years ago. They are located where the caribou can’t reach them. They will grow.

The power of beginning is an amazing thing. All is new, nothing is commonplace, nothing is taken for granted. It is all to be studied. It is all important.

In time, our letter writer will be an old salt. The power of his beginning will be traded for knowledge, skill, and experience. Other kinds of power will be found. There is no doubt of this outcome. Just as there is no doubt that the little trees in Pike’s Bay are going to split the rock. 

by Jerry Powlas



Contributors

Stan Terryll, Pages 6, 18, and 28 illustrations, at the spreaders waving a paintbrush, has a passion for art, boats, airplanes, and the blues. An art teacher from White Bear Lake, Minn., he designs, builds, and sells small boats as a hobby. Stan also markets limited-edition art prints, primarily with nautical themes.

Roland Barth, Page 32, on the spreaders, owns a 26-foot Contessa in Maine and a 25-foot Cape Dory and 20-foot gaff-rigged sharpie in Florida. In addition, he's a devoted Laser sailor. His recently published book, *Cruising Rules*, depicts the laughter and insight collected over 20 years of sailing his Friendship sloop, *Sazerac*.

Dave Chase, Pages 2 and 33 illustrations, on the dock giving Stan a paintbrush salute, is a maker of drawings such as this caricature of the contributors. With his wife, Susan, he spends summers sailing the Great Lakes in good old *Old Sam Peabody*, a Cabot 36. Some folks say he looks a lot like his caricature; others say he flatters himself.

Bill Sandifer, Page 16, clutching a filter, is a marine surveyor and boatbuilder who has been living, eating, and sleeping boats since the early '50s when he assisted at Pete Layton's Boat Shop. Since then he's worked for Charlie Morgan (Heritage), Don Arnow (Cigarette), and owned a commercial fiberglass boatbuilding company (Tugboats). Bill and Genie just sold their Pearson Ariel and are looking for a new wreck to restore. (*We figure Genie's bound to catch on.*)

Ken Textor, Page 28, on the dock with the oar, has lived and worked aboard boats for 22 years. In addition to work he did for the former *Small Boat Journal*, he regularly contributes to *Sail*, *Cruising World*, *Yachting*, *DownEast*, *Maine Boats & Harbors*, and *Boating World*. He also offers boat deliveries and pre-purchase surveys for other mariners.

Don Casey, Page 54, plugging the boat in very carefully, combines his love of cruising and writing with work appearing in many popular sailing and boating magazines. He co-authored *Sensible Cruising: The Thoreau Approach* and became the authority on boat fix-it projects with his book, *This Old Boat*. He's the author of six books in the International Marine Sailboat Library series and recently completed *Dragged Aboard — A Cruising Guide for the Reluctant Mate*. He and his wife, Olga, cruise aboard their 29-year-old Allied Seawind.

Cathy Hauptert, Page 21, at the mast, started sailing with her husband, Dan, on Lake Superior. Before long they bought an Ericson 35 (*featured in the September 1998 issue of Good Old Boat*) and took it to the Caribbean, where they sail during the winter months.

Karen Larson, Pages 34, 44, and 72, at the tiller, is editor of *Good Old Boat* magazine. She has written about sailing for *Sail*, *Cruising World*, *Sailing*, *Northern Breezes*, *Lake Sailor*, and *Lifeline*. Her publishing career began as a newspaper feature writer and page editor and later grew into a thriving newsletter production business.

Greg Mansfield, Page 62, on the high side, has raced a Laser and a Coronado 15, taught sailing, and chartered in

exotic locations. He and his wife, Sue, bought their Bristol 29.9, *Surprise!*, in 1993 and moved it from Wisconsin to the Chesapeake area via the Great Lakes, the Welland and Erie canals, the Hudson River, and the Intracoastal Waterway.

Jay Knoll, Page 6, next to Greg on the high side, sailed a Herreshoff America Catboat, a Tartan 27, and a Crealock 37 on waters from the Great Lakes to the Bahamas. He and his wife, Linda, have also completed passages as crew from Bermuda to the Virgin Islands, from Italy to Yugoslavia, and along the coast of Turkey. Off the water he's a computer trainer and human resources consultant.

Norman Ralph, Page 9, also on the high side, 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.

Jim Isbell, Page 73, on the bow, began sailing at age 33, by crewing on a Thunderbird. He fell in love with the sport and bought his own sailboat (a 12-foot fishing-sailer), abandoning his racing career and frustrating his sailing mentor. Next he built a 32-foot plywood sloop and bought a Balboa 20 and a 26 before purchasing his Bruce Roberts-designed 44-foot steel ketch, *Millennium Falcon*.

Mary Jane Hayes, in the water with the camera, and her husband, Warren, have been boating for more than 25 years. A freelance writer/photographer, Mary Jane has been widely published in boating magazines and has a book coming out soon, *Eye on the Sea: Reflection on the Boating Life*. At the last minute we postponed Mary Jane's color spread, due to lack of room. But she was still invited to the "dock party."

Jerry Powlas, Page 48, in the water with the anchor, is technical editor of *Good Old Boat* magazine. In an earlier life he was director of engineering for a refrigeration manufacturing firm until sailing's siren song lured him into something less stable but more fun. He and his wife, Karen Larson, sail *Mystic*, their C&C 30, on Lake Superior.

John Vigor, Page 22, swimming under the boat, is a freelance journalist based in Oak Harbor, Wash. He has raced, cruised, and written about boats for more than 30 years. He's the author of *Danger, Dolphins and Ginger Beer* (Simon and Schuster), a sailing adventure novel for 8- to 12-year-olds; *The Practical Mariner's Book of Knowledge* (International Marine); and *The Sailors' Assistant* (International Marine). He has a new book on small seaworthy sailboats coming out later this year.

Ted Brewer, Page 42, also under the boat, is one of this country'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.

Love those furlers

I read, with interest, the debate about roller furling. I, too, was skeptical ... now I would not be without it. This past summer we bought a new 150% genoa. It has a foam rope luff which maintains about 95 percent of the sail shape when reefed. The little bit of sail shape you lose is offset by the fact that it is so easy to reef when you should. If you must change headsails or go forward to reef, you will likely wait until you must reef. In the meantime, you have been losing speed because you are way overpowered. We also bought a new in-boom furling system with a new fully battened main. If I thought the roller furling genoa was great, I think the in-boom furling system is the ultimate. The boom is a complete system with a hydraulic boom vang that is adjusted at the beginning of the season to keep the boom at a fixed vertical angle with the mast, thus allowing the sail to be furled without wrinkling or bagging. The set of the reefed main is fantastic. You can vary the number of the rolls in the reef to match wind conditions. I feel I get a

better sail shape with this reefing system than with the slab reefing system it replaced. It is easier to reef the main than to take a couple of rolls in on the genoa. And all this without leaving the cockpit.

Chuck Jones
Trenton, Ontario

Aluminum tanks

Great magazine! I just bought a 1982 Lancer 36. The only problem that surfaced during the marine survey was a leaky aluminum diesel tank. The proposed solution is to fabricate a new tank.

Patrick Ryan
Berkeley, Calif.

Hot-water system

Here's one that has been puzzling me. I'd like to upgrade the hot-water system on my Pearson Vanguard. Currently I heat it off the freshwater cooling on my Atomic 4. The hot-water heater holds 12 gallons, which is plenty for a family of four. The problem is that as hot water is drawn off, cool water is pumped in, resulting in the last 6 gallons being lukewarm. Worse, the engine has to be run for at least an hour and a half to get the water really hot. I don't want to use the electric connection since I am rarely dockside.

Propane would seem a logical alternative. After all, it's used for stoves and ovens below decks. There are several manufacturers of propane hot-water heaters that advertise their use on boats above decks. In particular, ZODI <<http://www.zodi.com>> offers a couple of attractive units but do not warrant them for use below decks. They talk about serious oxygen depletion as one problem. Why would an oven be less dangerous than an on-demand hot water heater? *Practical Sailor* inveighed against the Wolter hot water heater for similar reasons. Any opinions?

Jim Pendoley
Amesbury, Mass.

There are at least two aspects to your question: the safety and the heating of water. I don't think one kind of combustion in an enclosed space can be much worse than another. Stoves, ovens, space heaters, and water heaters all have open flames, burn up the oxygen, and make carbon monoxide in the low-oxygen-content air that remains. Perhaps the only distinguishing feature would be the bigger the flame, the worse the depletion. Demand water heating would be a pretty big flame, perhaps more flame than a three-burner stove and oven all burning at once.

None of these appliances should be operated in a boat without specific deliberate and adequate ventilation. The thing that has stopped us from installing several propane appliances was the requirement for a minimum stack height for safe operation. The heater we considered (we sail on Lake Superior) would have to have been mounted on the cabin floor to have enough stack height

for adequate draft. Alternately the stack would have interfered with the boom on deck. Why does a stove not require a stack? Probably because it's not intended to be operated constantly. But it needs provision for discharging old air and bringing in fresh air when it is lighted. Otherwise it can kill.

Heating water has special problems when a flame is used. The water can be cold enough to inhibit the complete burning of the fuel, and can cause the stack gas to be too cold. It needs to be pretty hot to have adequate draft and to prevent corrosion. Cold stack gas has acids in it that eat out the stack. It's also unsafe.

We heat water for everything (dish washing, showers) in pots on the stove. Smaller pots work better than larger pots because they do not promote as much incomplete combustion. We have a non-pressurized alcohol stove and oven, and the incomplete combustion of the alcohol made from a large aluminum pot of near freezing water (normal for our sailing ground) reminds one of cutting up raw onions. The small pots don't do this. We do ventilate when we cook or heat water.

You might consider the stove method. It is cheap and effective. Heat the water and pour it into something. Our stove can heat water as fast as we can shower with it. We use a flower watering can for showers. A \$7.50 shower: very low tech, very effective. There are just the two of us, however. If you need privacy for showers, you could still fill a tank and pump from it.

We use a diesel heater because it has forced combustion air and forced air circulation. It's set up to ventilate with fresh air as it heats. It does not recirculate.

In summary, there is enough bad stuff in the literature to believe that carbon monoxide poisoning is a real threat that does make people sick and even kills some of them. Ventilate when there is a fire in the cabin, and don't ever go to sleep with a flame lighted in the cabin.

Life without an icebox

I really enjoyed your article (*Jan. issue*) on eating your way through a long

sailing trip without ice. On our long sailing trips across the lake, we always plan for two things: eating outrageously well at all times and a long stint without ice. With a little savvy and some careful planning, these two things are definitely not mutually exclusive.

On *Kiwa* (and now on *Allegro*) we always had a "bread kit" on board with yeast, bread flour, and whole grains so we could have fresh bread whenever we wanted it. *Kiwa* had a gimbaled alcohol stove, with an oven, which means you had to watch the oven closely and adjust the temperature while baking, but the rewards were well worth it. Recently I ran across a bread photo from one of our Canadian trips: bread rising on the gimbaled stove, wrapped in a wool sweater and perched atop a large pan of warm water. We had mixed and kneaded on the downwind leg (there are some advantages to being both the baker and the navigator) then let it rise while we beat to windward again. The bread went into the oven as we dropped the hook in Woodbine Harbor. There was only one other boat in the anchorage, so when it was done, we rowed our extra loaf over to them. I suspect this is a good way to make friends just about anywhere.

It is possible to eat very well without keeping food on ice, as long as you're willing to rethink how you normally cook and build meals around what keeps best. For us, it's a priority to eat very well on EVERY trip, including long ones to the north shore where you can't always get ice and fresh staples. The only insurmountable difficulty, really, is what to do about one's gin and tonic . . .

By the way, cheers on a wonderful magazine for the rest of us who love to sail and are willing to work at it a little!

Judy Taylor
Minneapolis, Minn.

Powdered milk

Karen Larson's article (*Jan. issue*) on sailing without a cooler was very interesting. I believe she is correct in her comments about powdered milk. Perhaps it is an acquired taste, something like warm beer? Which brings up the only real objection I can think of for the simple life! Back to powdered milk: I read some book years ago wherein the author/sailor states he put a teaspoon of vanilla in a quart of powdered milk to improve the taste.

I've never tried it, but who knows? You have a wonderful magazine.

Bill Nolen
Oklahoma City, Okla.

Bill, we tried the vanilla. It does help. It will go along on our next vacation for a more serious "test."

Powdered milk and insulation

Parmalat (which I thought was irradiated but may be UHT) is available in everything from 8-oz. juice boxes to half gallons, skim to whole milk. You can probably find it with the juice boxes in your supermarket. It keeps for months and tastes like REAL MILK.

About Douglas Axtell's comments on Reflectix (*Jan. issue/Mail Buoy*): Anyone interested in this should visit the Glacier Bay website: <<http://www.glacierbay.com/libraryp.htm>>. They have several scientific articles on testing of insulation R-value. It seems that products like Reflectix (which they tested at only R=0.67) that use the NASA technology (also Heat Shield) are very good for radiant heat, which is a major concern in space, but not of much concern inside a boat. In steady-state conditions, the R-value falls to a minuscule number. Stimulated by ads for Heat Shield claiming R=30 per inch, but deterred by the cost of ~\$10/square foot, I researched the subject extensively. At the NASA website, I found information that allowed me to construct a thermal blanket, also known as multilayered insulation (MLI). The design is basically many layers of aluminum foil separated by some type of trapped air (closed cell foam or mesh). This is highly effective against radiant heat, but nearly useless against conducted or convected heat. After digesting the Glacier Bay information, I decided to rebuild my icebox using standard urethane foam. I suspect Doug's (good) results are from his meticulous sealing of the box and the 1/2 inch foam, not the Reflectix.

I am very impressed at the difference between *Good Old Boat* and (another publication for handy sailors). You focus on the problems (?challenges!) of old boat ownership and various solutions (which may or may not involve commercial products). Keep up the good work.

Mark Parker
Hancock, N.H.

Flag etiquette

The very interesting article on proper flag etiquette was not absolutely clear on one point. At no time is it correct to

have your national flag flying higher than the courtesy flag of the country you are visiting. In some ports this will be taken as an insult. In others it could cause officials to impose fines which can be quite heavy, though we have never heard of a fine being charged if the offending flag was lowered to the proper position. While actually under sail, if the flag is sewn on the leech of the mainsail, it is acceptable to have it higher than the courtesy flag, but not if the vessel is under power. This seems a bit like a nit pick, but for visiting cruising sailors, every bit of courtesy seems to pay unexpected dividends.

Lin and Larry Pardey

Kayaks as dinghies

Recently read an article in *Sailing* magazine, 1/99 issue, (by Karen Larson) describing a C&C 30 that took along a kayak or two. I'm interested in how you carried the kayak(s). This seems to be an interesting problem that owners of 30-foot boats wrestle with from time to time. Did you carry yours onboard or tow it?

Richard Ian-Frese
Seattle, Wash.

We stow our 17 ft. two-person rotomolded kayak between the cap shroud and the port lower. It wedges into place and rests on the cabinhouse. There is a sling that hangs from a length of PVC pipe installed over the upper shroud. This takes some of the weight so the kayak does not wedge in too tightly and force the shroud off axis too much. The bow and stern are tied to the toerail and handrail respectively, to keep the kayak in place when we take heavy seas over the bows (quite rare). We fly all of our headsail inventory with the kayak on deck including a 170 genoa.

We launch and recover the kayak with a sling hoisted from the jib halyard. We do not use a ladder, but rather step from the boat to the kayak and back in one large step.

Our kayak does not tow all that well. In flat water it works fairly well, but the length of the tow line is critical. The kayak should ride bow up on a following stern wave. The distance to this wave varies with boat speed to some degree. If the kayak gets her hollow bow down in the water she has a mind of her own, and does not follow the tow line well. In rough weather the kayak can get sideways in a following sea and capsize. We have had all these experiences and so do not tow anymore. Our first kayak was a Folbot, and it

Continued on Page 66

Cruising memories . . .

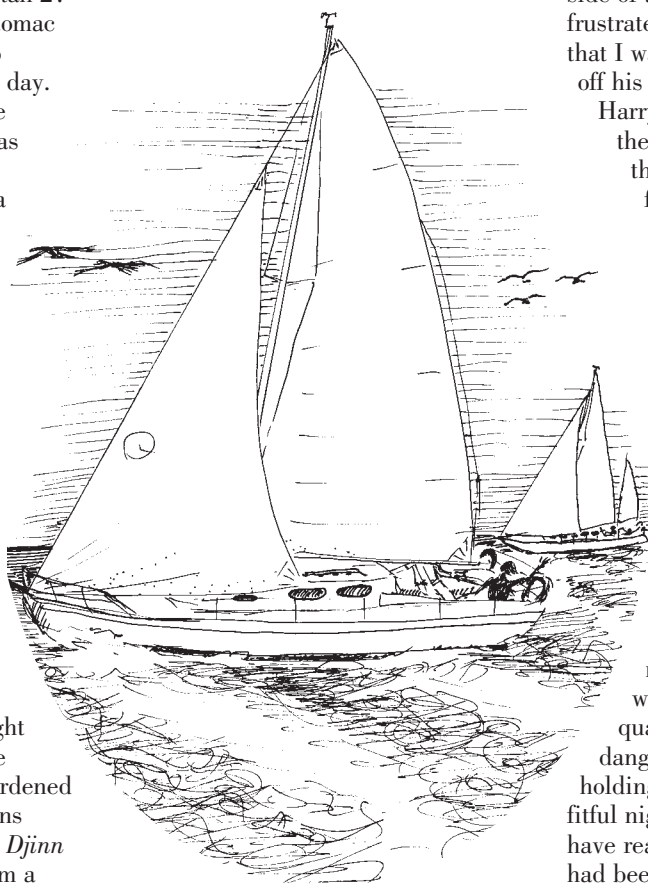
Lessons learned from

The race started when Linda said, "Isn't that blue boat catching us?" I put down the book I'd been reading while I steered and began to pay more attention to sail trim and heading. The increased murmur of our bow wave and the hiss from the dinghy told me we had picked up speed. *Dawn Treader*, our Tartan 27 sloop, was reaching down the Potomac toward the long run up the bay to Solomons Island. It was a perfect day. The crisp fall weather cleared the bay's ever-present haze. There was enough air to keep the boat moving well and the prospect of a pleasant marina and hot showers at day's end. And now we had the challenge of an impromptu race to help pass the time.

When we rounded Point No Point, the wind obligingly went around to the west and permitted us to continue reaching up the bay. Everything would have been perfect except for the blue boat dogging our wake. I just couldn't put his hull down under the horizon! As the day continued, I kept trying to sail as fast as possible until, at last, we were overtaken by the sleek blue yawl named *Djinn*. She caught and passed us at the mouth of the Patuxent River, when we both hardened up for the beat upriver to Solomons Island. Once past *Dawn Treader*, *Djinn* received some close attention from a Southern Cross 39. With a flurry of activity *Djinn's* crew dropped their centerboard, hardened up another 5 degrees or so, and out-footed the contender into Mill Creek. We followed in their wake.

The barometer had begun to drop, and the VHF forecast a storm with high northerly winds in the early morning hours. I grumbled to Linda that I wasn't looking forward to spending the night in a marina but warm showers and the chance to have a night out "on the town" prevailed.

Looking ahead to the marina, I noticed *Djinn* taking the last good berth at the gas dock. The dockmaster asked us to tie alongside a bulkhead farther up the creek. It wasn't a bad berth, other than being on the northern side of the dock.



I anticipated an unpleasant night if the storm arrived. After securing our docklines and fenders, I placed an anchor to windward, and used it as a breast line to keep us from slamming against the bulkhead. As I climbed back aboard from the dinghy, a short gray-headed man of about 60 ambled down the dock. "Hi, I'm Harry," he said, "I wanted to say I'm sorry we took up the whole area by the gas dock. If you'd like, stop by for a drink."

Later in the evening he commented, "You gave me the fits all day trying to catch you." We had spent several hours becoming acquainted and looking over their Pearson yawl, a 39-footer that seemed like a palace next to our little 27-foot sloop. Evelyn, Harry's wife, chuckled as she recounted the other side of the day's events. Harry was frustrated with the "good wind shifts" that I was getting and with our holding off his advance for much of the day.

Harry and Evelyn had been cruising the bay for many years. We spent the evening discussing our favorite anchorages and how an interest in sailing had grown and deepened over time.

While none of us were long-distance cruisers, we clearly enjoyed our time on the water, and viewed our lives as enriched through sailing.

Later, after we were back aboard *Dawn Treader*, the anticipated storm came rolling through. The pleasant feelings from our evening's conversation quickly dissipated as the hull magnified the sound of the waves slapping against our quarter. While clearly in no danger, thanks to the breast line holding us off the dock, we still had a fitful night due to the noise. Harry must have realized how unpleasant the night had been, because the next morning he came to tell us about a slip that had just opened up. After we moved, we toured the enchanting small-scale maritime museum located a short walk from the marina, and did some much-needed provisioning. That night, the four of us had drinks and dinner in a small restaurant overlooking the creek and watched the family-oriented Wednesday night races. In deference to the high winds still pounding the bay, they raced in the creek. We chuckled as we watched one family intently trimming their sails. The youngest crew member

Harry

by Jay Knoll
illustrations by Stan Terryll

in the stern, happily towing a series of toy boats, certainly was a contrast to the rest of the serious crew!

Conditions hadn't changed much by the next day, but I was getting itchy to leave and managed to convince Linda that we should head out. Our next destination was the Rhode River, about 35 miles north, and a day-long beat was not a pleasant prospect. The radio forecasted small craft warnings, with winds of 25 to 30 knots, so I reefed down at the dock and hanked on the storm jib. Tying the dinghy to the coachroof, I waved goodbye to Harry and Ev as they eased *Djinn* away from their slip.

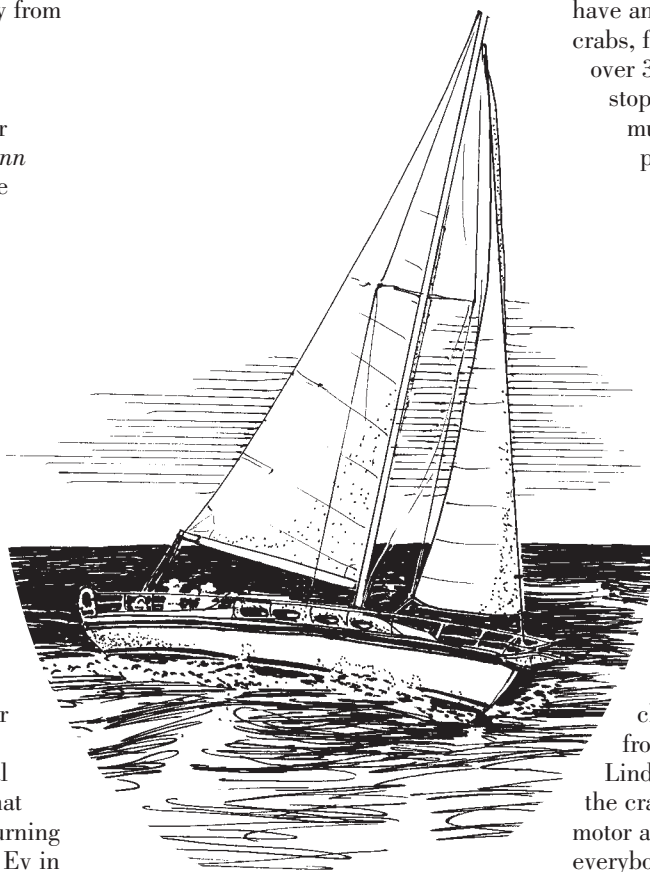
An hour later, we cleared Lookout Point and took our first tack up the bay. Ahead, *Djinn* was down to jib and jigger as she beat across the bay. Conditions were clearly worse than they were in the shelter of the river. The unpleasant chop and overcast sky combined to make a miserable day. In the short choppy bay waters, sailing close hauled, the Tartan 27 is not at its best. The chop literally stopped the boat in its tracks from time to time. Crew morale was not high and quickly deteriorated when we came about. We discovered that our leeway, combined with an ebbing tide, placed us only several hundred yards to weather of our departure point. While I argued that we should try several more tacks, Linda pointed out that *Djinn* had fallen off and was returning to port. That did it: if Harry and Ev in their larger boat weren't making headway, why should we try? They had clearly been pointing higher than *Dawn Treader*, but they decided that it wasn't worth the effort. After all, we were on vacation and had the luxury of waiting for better conditions, so why bother?

We eased sheets, and *Dawn Treader* quickly picked up speed as her heel decreased and we reached up the river. I didn't want to return to the marina, and considering that we had just purchased a week's worth of supplies, Linda quickly agreed. Upon entering Mill Creek, we noticed *Djinn* anchored in a small cove, with Harry standing in the stern waving us over. Fenders were hung on the starboard side, and Ev was waiting to take our bowline. Once rafted up, we

high trees sheltered the calm anchorage, although their top branches bowed to the pressure of the norther that still scoured the bay. Several other yachts, tired of the conditions out on the bay, anchored nearby. Most of the boats showed the evidence of a hard day, with foul weather gear and life jackets drying on the lifelines.

We watched the crews' reactions as we deployed crab lines around the boat. As retribution for delaying our northerly progress, the bay began to give up its bounty. We must have anchored over a mother lode of crabs, for within an hour we had netted over 30 jimmies . . . so many that we stopped trying. Harry and I were musing about how we were going to prepare them when I noticed several low-slung oyster boats heading into port. "Hop in!" Harry yelled as he climbed into his dinghy and began pulling the outboard's starting line. Shouting to Ev to give him some money, we cast off and skimmed up the creek in the waning daylight. Soon we were next to a workboat negotiating for oysters. Much to my surprise, the waterman quickly agreed to \$10 for a bushel, which he dumped into the dinghy!

Back at the boat, Harry and I unloaded the dinghy and cleaned out the mud and shell left from our purchase. Down below, Linda and Ev had started steaming the crabs. Harry then proceeded to motor around the anchorage inviting everybody for drinks, crabs, and oysters. Fortunately, everyone came, because we clearly had too much food for us to eat alone. Perhaps more to the point, the crew of a Westsail 32 from Virginia opened oysters like I shell peanuts. They tried to teach their technique, but none of us could master their speed and deftness. The shells just seemed to pop



shared some hot soup Linda had made and resumed the conversation of the past several days.

Although the wind continued, the skies cleared and it became a beautiful clear, crisp, September day. A ring of

open when they settled in the palms of these experts. A fair division of labor evolved: Harry and I scrubbed the mud from the shells and kept our guests supplied with beer while they opened oysters for all of us to eat!

Laughter and good tales rang through the anchorage as each of us shared the day's events, and our pleasure with the outcome of "turning back." As I watched more workboats returning to the harbor with their crews silhouetted by the evening sun, I realized Harry's outgoing nature had created this pleasant afternoon. Without his enthusiasm, each of us would have hunkered down on our respective boats, without the diversity that other people bring to any gathering. Our guests left at nightfall, and Harry produced a giant steak that we proceeded to devour in spite of the quantities of seafood consumed earlier. After a pleasant dinner and cockpit conversation, we watched the sky clear and agreed that we would meet the following evening in the Rhode River.

We got an early start the next morning, and although the wind was still strong, it was from the west as we reached up the bay. The wind strength decreased and the temperature rose as the day progressed. We finally ghosted into the anchorage dressed in shorts and T-shirts and rafted with *Djinn*.

That was just the beginning of our sailing friendship with Harry and Ev, one spanning several years. Although their home port was on the bay's western shore, we quickly found that we shared a fondness for out-of-the-way anchorages and often unexpectedly met them on weekends. As they lived near Annapolis, they extended hospitality during the winter months when we traveled from Philadelphia for a "sailing fix." They surprised us with

a visit on the day we took delivery of our new Crealock 37 cutter, *Simple Gifts*, and traveled with us on her shakedown cruise. We had often talked with Harry about "the next boat," and this was our step up from *Dawn Treader*.


These fond memories are more poignant when I think about Harry's prolonged bout with cancer. Several years after our initial meeting, Linda

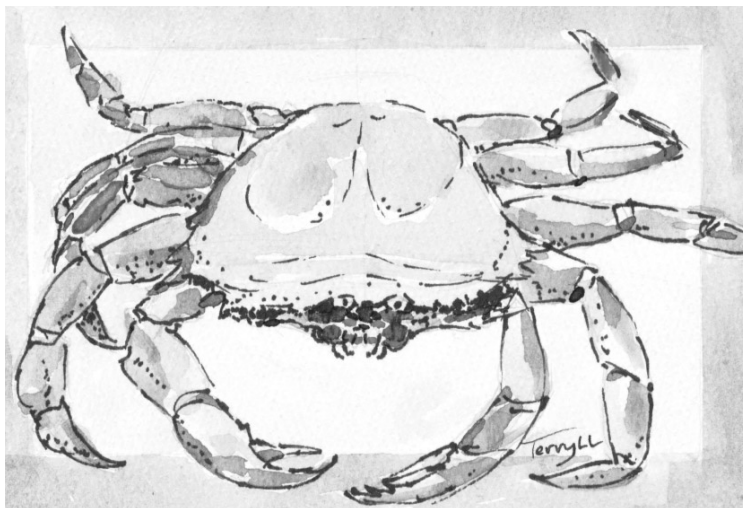
once his health improved (Ev said nothing, but I could see in her eyes the hope that it would). We talked the night away, roaming over those impromptu topics that friends weave together into a conversation that fills the soul and the evening.

Harry fought a good fight, never mentioning to us the depths of his illness. It lasted several years, and although he became thinner, he always

spent some time on their boat. Clearly, he and Ev picked their weather carefully. *Djinn* was too large for her to handle alone, and in the end, I guess that they spent more time at the dock than out on the water.

Once again, other cruising friends asked us to crew for them, this time to Turkey. We looked forward to seeing them. They had been full-time liveaboards for several years, and we couldn't pass up the opportunity to broaden our skills with them in such an exotic locale. The pleasure of that wonderful trip and our homecoming diminished when Ev called to tell us that Harry had died while we were gone. Linda and I spent the evening reminiscing about the times we spent with Harry and Ev aboard *Djinn*.

While we mourn his passing, we take pleasure in our shared experiences. Too often we cruisers overlook the friendships that can be gained from a simple "hello." If Harry hadn't walked down the dock to invite us for drinks, we probably would never have been friends. Thinking about how his cancer snatched away Harry's dream cruise helped us resolve not to wait until "someday" to go on our own cruise. Linda and I carry these lessons with us as we head south, fondly remembering Harry's gentle impact on our lives. 



"As I watched more workboats returning to harbor with their crews silhouetted by the evening sun, I realized Harry's outgoing nature had created this pleasant afternoon."

and I were fortunate to be asked to crew on a friend's boat along the Yugoslavian coast. Harry had loaned us a duffel for the trip, and we arranged a rendezvous to return it. We rafted in Swan Creek on the eastern shore, and as we took our customary place alongside *Djinn*'s starboard rail, I noticed that Harry looked thin. Settling in the cockpit, he told us of his illness. And then, before we could become despondent, he quickly turned the conversation to our recent trip. He said he planned to "lick this thing" and continue sailing. Harry mentioned a new boat he wanted to buy,

Blister repair was cheap ... all things considered

It all started innocently enough. It was mid-October of 1990, and we were going to Texas anyway to visit cousins in San Antonio and then on to the Clear Lake area near Houston. I had seen ads in sailing magazines for Valiant Yachts and noticed their facilities were located in Gordonville, Texas. We would be going right by on Interstate 35 and thought it would be great to visit the factory. I had read about Valiants and their reputation as offshore cruising boats and had admired their looks from afar. A letter to Valiant brought a prompt response and invitation to stop by.

We were taken on a tour of the factory by Stan Dabney, who, with his wife, Sylvia, was working at the factory while their Valiant 40, *Native Sun*, was being repaired after being damaged in Hurricane Hugo. They were among the founders of Valiant. (*That story was related by Sylvia in the September 1998 issue of Good Old Boat.*) We were very impressed with the boat and the factory operation. If we were "rich instead of good looking," as the saying goes, we would have signed up to buy a new

*A bad case of blisters
made the boat affordable;
upgrades were the expensive part*

Valiant 40 on the spot. But as I was cheated on both counts, we couldn't afford even the used ones we saw among the brokerage boats there.

While touring the facility, we noticed several used Valiants on jack stands with the gelcoat stripped. Stan explained they had been purchased to be refurbished during the slack season but the area had suffered severe flooding so repairs on these boats had been put on hold.

After thanking Stan for his time, we headed for San Antonio. As we traveled, we debated and schemed about how we could manage to own a Valiant. Our present boat was a Pacific Seacraft Flicka. Since we have bigger dreams than bank account, we had purchased her and refurbished her with the goal of

doing some cruising. However I am over 6 feet tall and Jeanette, my wife, is almost 5 feet 10 inches. We soon found that the Flicka was wonderful for short trips but too confining for an extended cruise. I would be able to take an early retirement within five to seven years, and we had set a goal to find a boat we could have ready to cruise by then.

In Clear Lake, we looked at a used Valiant 32. It was completely disassembled in the midst of being refurbished. It was for sale "as is." Looking back, the asking price was not out of line, however I did not feel confident in my ability to put something back together that someone else had taken apart on his word that all the pieces were present.

While we were there, we kept thinking of the Valiant 32 we saw in the boatyard at Cedar Mills in need of repair and refurbishing. Perhaps they would sell it to us "as is." At Jeanette's urging, I called Stan with that question. We reached an agreement on price and told him we would be stopping by on our way back to Missouri in a couple of days to examine the boat and close the deal.

Her name was *Freedom*. She had a white hull with a dark blue stripe below the caprail and a red bootstripe above the waterline. We decided immediately that the boat would be repainted the same colors. In honor of my wife's

by Norman Ralph



Bluebonnet appears to be at peace in her rural setting as she awaits her launch date.



native state and the state where we found her, we would name her after the state flower of Texas, *Bluebonnet*. The interior was in very good condition, though it needed cleaning and new upholstery. The exterior, however, was going to need a lot of work; it had blisters everywhere, not just on the bottom. Stan explained that the previous owner of Valiant Yachts, Uniflite of Bellingham, Wash., had constructed their Valiant sailboats and Uniflite powerboats for a time in the late 1970s with a polyester resin that had a fire retardant additive. The additive caused the boats to blister badly. Uniflite dropped the fire retardant additive in the early 1980s, but by that time it was too late. Due, in part at least, to the blistering problems, Uniflite was sold. The new owner was not interested in sailboats and sold the Valiant name, molds inventory, and so on to Rich Worstell. He moved the manufacturing operation to Texas in the mid-1980s.

Stan and I made a complete inventory of the boat, its rigging, sails, and equipment. He furnished us a copy of the owner's manual and gave us the history of the boat. We determined what materials we might need from the factory and purchased them to be shipped with the boat. We signed the papers for the boat and headed home.

Preparations

Arriving home, we made arrangements to have the boat shipped to our back yard. We lived outside Kansas City, Mo. We purchased five jack stands with the boat. We used four at a time. The fifth one allowed us to move a stand in order to work in the area where it had been. In preparation for the boat's arrival, I purchased three pressure-treated plywood sheets and two pressure-treated 4 by 4s. I also made three sturdy sawhorses to hold the mast.

It was early December when the boat arrived. The sawhorses were spaced out evenly, and the crane picked the mast off the boat and set it on the sawhorses. Then it picked up the boat. We spaced the plywood sheets and 4 by 4s under the keel. Then we arranged the jack stands. The plywood and 4 by 4s prevented the keel and jack stands from shifting due to rain or the spring thaw.

Winter weather made working on the boat impossible, so I spent the time purchasing the necessary materials and tools to start in the spring. The boat sat next to my workshop where I had access to an air compressor and air orbital and jitterbug sanders. I also had an electric palm sander. I found that a Dremel tool was indispensable for opening blisters. I removed the teak hatchboards and replaced them with plywood, so I could refinish the boards later. I did the same

Freedom was affordable because of the blisters on her bottom, topsides, decks, and cabintop. The photos show the boat in the yard in Texas, in the patching stage, and after repainting.

with the large opening hatches on the cabintop and foredeck. They were made with teak frames, and as all the exterior teak had been allowed to weather to a rough gray, the hatches needed to be disassembled, refinished, and have the Plexiglas rebedded.

I also did some research on the Valiant blistering problem. I discovered that instead of osmosis blisters caused by water penetrating the gelcoat from the outside and setting up a chemical reaction in the laminate to cause blisters, these blisters are caused by the fire retardant not having kicked with the polyester resin. This retardant then slowly wicks its way through the laminate to the surface and forms blisters under the gelcoat. These blisters will show up on the bottom, topsides, decks, and cabintop. They seem to be more evident in warm climates and waters. The retardant seems to wick itself to the surface when the laminate is warmest. Boats sailed exclusively in the cold waters of the Pacific Northwest and Alaska were very slow to develop blisters.

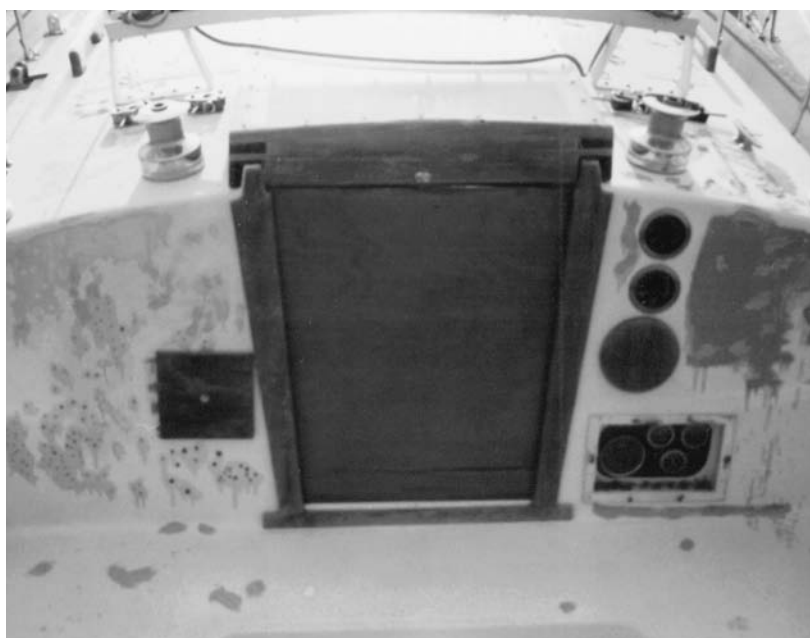
Through the advice of friends and from observations at the factory, I used West System epoxy products for the repairs. I used their epoxy and fillers and purchased several of their booklets and a video on fiberglass repair. The folks at Gougeon Brothers were very helpful and informative the few times I called them with questions about a particular phase of the project. The total cost of the epoxy materials, including resin, hardener, fillers, additives, cloth, masks, acid brushes, stir sticks, sandpaper, and so on was about \$1,100. (See sidebar on Page 13 for a breakdown of expenses.)

The project begins

I started on the repair in spring 1991. The blisters on the hull above the waterline and on the deck and cabintop had not been opened. I opened and flushed them with water and left them to dry while I concentrated on the bottom. I filled the blisters with glass cloth and epoxy resin and faired the boat with epoxy resin mixed with fillers to make a putty the consistency of peanut butter. The bottom had some large deep blisters, while the topside blisters were just under the gelcoat. I left the bottom exposed to allow the hull to dry out, and I did not cover the bottom with a barrier coat until September the following year.

This was not highly skilled work, but it was time-consuming. At times I felt intimidated by the unending number of blisters. A lot of the blisters were dry; nothing was in them but a pocket of air under the gelcoat. Apparently the fire retardant

Blisters will continue to appear and need patching each year but never again in the numbers which Norman faced to begin with. Cabintop blisters before, patched, and after.





Bluebonnet was launched July 27, 1994, in Grand Rivers, Ky. Spared from an early retirement, she will squire Norman and Jeanette Ralph in style for theirs.

had wicked to the surface and formed the blister. Then the porous gelcoat allowed it to evaporate. Since I was working full-time at my job, I spent afternoons after work on the boat project. Often 30 to 45 minutes a day was all the time I had. This was sufficient to sand down the previous day's work and mix and fill in more areas.

The bottom received its barrier coat over the Labor Day weekend in 1992. Most of the repair work had been a one-man job, but the barrier coat required the additional efforts of my wife and our son. The hull must be close to air temperature before you begin to apply the barrier coat. If it has cooled overnight, it must be allowed to

warm up, so no condensation will form on the hull. The barrier coat consisted of one coat of clear epoxy followed by six coats of epoxy with West System #422 barrier additive and a final coat of epoxy with #425 additive. The #422 is an aluminum powder that increases the epoxy's resistance to water absorption and makes it more abrasion-resistant. The #425 is a fine copper powder that provides a backup to bottom paint and is extremely abrasion-resistant. The epoxy is applied with a foam roller, and someone follows around with a foam brush to tip off the bubbles which form.

When the first coat is applied, you start on the next coat as the first one has started to kick, usually in 30 to 45 minutes. You keep going around and

around taking turns with the different tasks. You have to work fairly fast on a hot day, as the epoxy will have a short pot life. If you don't finish in one day, you must wash the hull with clear water and a "scrubbie" and dry it with white paper towels. An excellent booklet, *Fiberglass Boat Repair & Maintenance*, is available from Gougeon Brothers. It is a must for anyone who works on fiberglass boats.

(As a side note: the last time we had the boat hauled, in Sept. 1997, I buffed the bronze prop and coated it with epoxy resin with the #425 copper additive. I had some of the additive on hand, and the intent was to prevent barnacle growth on the prop. If it works I'll pass that information on through Good Old Boat's Mail Buoy column.)

After we covered the bottom with the barrier coat, I concentrated on the topsides, cabin, and deck. I repaired the damaged teak caprail and replaced the starboard teak rubrail.

The many small blisters filled with epoxy filler on the hull at times looked like zits on a teenybopper. Upon the recommendation of Gougeon Brothers, we gave the topsides two barrier coats of epoxy: one clear and one with the #422 additive. Looking back, I would not coat the hull above the waterline with epoxy, because the blister problem on a Valiant is from within, not from moisture coming from the outside. I painted the hull with Interlux Brightside one-part polyurethane paint with a brush. I did not have an enclosure large enough nor the experience to spray it with a two-part polyurethane such as Awlgrip or Imron. I have been very pleased with the result however, and touch-ups and repairs are easy.

Related projects

After repairing the blisters and filling in the holes where the old depth and knot instruments had been, I painted the deck, cockpit, and cabintop with the same paint. I added a flattener to the white to reduce the glare, masked off the non-skid areas, and painted them light gray with a commercial non-skid powder added. As some areas of the non-skid had been removed to repair blisters, the grit in the paint gave it an even look. The two-tone look is very pleasing to the eye.

I sanded the exterior teak, except for the hatches and Dorade boxes, and gave it several coats of Sikkens Cetol. I varnished the rest of the teak and covered it with Sunbrella fabric. An annual topcoat of Sikkens keeps the teak looking great.

As I discussed in the January issue of *Good Old Boat*, I also had to repair a leak in the diesel fuel tank. In addition, I made a turtle, or hood, for the companionway sliding hatch. The Valiant factory wanted \$500 for one, and I had the materials on hand anyway. I made a female mold, lined it with waxed paper and laid up the hood with epoxy and cloth. The top has a core of plywood. On a table saw, I made cuts in the plywood halfway through lengthwise and 1 inch apart, and then I turned the plywood over and cut it on the other side, staggering the cuts so the piece was very flexible. I coated the plywood with epoxy resin and laid it in the mold, adding more fiberglass cloth on top of it. After the hood came out of the mold, I trimmed and faired it, then painted it to match the cabintop. I added teak trim, and it turned out very nice. As the material was already on hand, all I had invested in it was the time.

The holding tank was a rubber composition bladder under the V-berth. I replaced it with a solid tank I made of 1/4-inch plywood and epoxy, using the stitch and glue technique. The tank is covered with glass mat and cloth inside and out and has a baffle inside for extra rigidity. It has an approximate capacity of 20 gallons. (More on this subject in a future issue of *Good Old Boat*.)

The boat had a tiller, but it was broken and delaminated. I could have ordered one from the factory, but as I was making everything else, I decided to make one. I bought some ash and mahogany lumber and ripped it in the table saw in strips 1/4-inch thick by 2 1/4 inches wide and 4 feet long. I built a jig using blocks of wood on a scrap piece of plywood. I bent the alternating strips of ash and mahogany around the blocks of wood in a pattern that matched the old tiller. When I was satisfied with its shape, I screwed the blocks onto the plywood. Then I removed the strips and covered the blocks and plywood base with waxed paper. I brushed epoxy resin on the

Cost breakdown tells the tale

The following is a breakdown of the expenditures for bringing the boat back to her former glory. They are broken down into two sections: the cost of blister repair and the cost of upgrades, not including the upgrades added after launching. The amount of upgrading you might want to do would depend on the size of your bank account. There are always new bells and whistles to buy for your boat, and you can always convince yourself that you need them. A major source of materials I used in the repairs was Jamestown Distributors in Jamestown, R.I., for epoxy products, paint, acid brushes, rubber gloves, tongue depressors, and so on. I had previously purchased a Sailrite sewing machine and sewed all the canvas covers for the boat. I later used the machine to convert the headsail to roller furling.

Blister repairs

West System epoxy and hardeners, 15 gallons, used about 12 gallons (1991 & 92 prices)	\$600
West System fillers and barrier coat additives	\$275
West System 6-ounce glass cloth: 15 yards, 60 inches wide	\$120
Interlux Brightside one-part polyurethane paint	\$125
Varnish and Sikkens Cetol	\$135
New teak caprail, two pieces from Valiant	\$100
New teak rubrail, one piece from Valiant	\$60
Miscellaneous (Sandpaper, masking paper, acid brushes, stir sticks, etc.)	\$125
Total	\$1,540

Bottom paint: Not a blister repair cost, nor an upgrade, but still necessary to get the boat ready to launch: Interlux Micron CSC 4 gallons **\$470**

Upgrades and replacements

Four new Barient self-tailing winches for cabintop, 2 two-speed and 2 single-speed for halyards and staysail sheets. Old ones were in good condition, but we wanted self-tailing. On sale when Barient discontinued sales in U.S.	\$1,275
Richie compass	\$154
Running rigging	\$300
Standard depth sounder and knotlog: \$285 each	\$570
35-pound Delta plow anchor	\$237
New England nylon anchor rode 300 feet @ .36	\$108
Boat/U.S. 5/8-inch nylon line for docklines, etc., 300 feet @ .33	\$100
10 x 28 fenders 6 @ \$30	\$180
Standard VHF	\$148

Additional to rewire the mast

Coax	\$80
14/2 triplex – tinned 100 feet	\$23
14/3 triplex – tinned 100 feet	\$36
Spreader lights	\$40
Anchor/tri-color light	\$67
Total to rewire mast	\$246

Exide #SP-30H gel-cell batteries 3 @ \$120	\$360
New lifelines (I did them myself, price includes cost of the tool)	\$211
New standing rigging (swaged top and Sta-lok bottom)	\$1,133

Total upgrades and replacements **\$5,022**

These prices were current in 1991-1994. Although the totals may differ today, the ratio of repair to upgrades and outfitting costs is valid. If you could find a blistered Valiant that was fully equipped with up-to-date equipment, the boat would be an even greater value. If you didn't have the skill, inclination, or facilities to work on the boat yourself and had to pay a boatyard to do the work, it would be questionable whether the project would be practical.



strips, placed them in the jig, and clamped them in place with woodworking clamps. When the epoxy had hardened, I removed the tiller, shaped it with a belt sander, and varnished it.

The standing rigging that came with the boat seemed to be in good shape but was of undetermined age, so I felt it should be replaced. I considered buying the wire and Norseman or Sta-lok fittings and doing the work myself. However I ended up having a rigging shop do the work for less than what it would have cost me. I had the top ends swaged and the bottom ends fitted with Sta-lok fittings. The rationale was that the bottom end usually goes bad from moisture running down into the swage. The sealant in the Sta-lok would prevent this and when a problem does occur, the repair can be done at deck level.

When I pressurized the water system, I found that the copper water lines had not been winterized properly and had split in several places under the cabin sole. I had to find all the split sections of copper tubing and cut them out. I inserted flexible plastic hose in place of the missing sections and clamped them with hose clamps. It required several attempts to pressurize the system to find all the leaks.

Blisters were cheap

When it came to upgrading the equipment and outfitting the boat, it soon became obvious that the cost of blister repairs had been very modest in comparison. The costs of the new cabintop winches for the halyards and mainsheet, new running rigging, new ground tackle, new depth sounder, and new knotlog added up quickly. The list went on and on. When I painted the spars, I replaced the wiring in the mast. The old wiring seemed to be usable, but with the mast on sawhorses, why not?

All in all, we spent about three times as much on replacements and upgrades as we spent on the blister repairs. As there was no rush in purchasing the equipment, we tried to find it on sale. We were successful in this for the most part.

By Memorial Day of 1994, Jeanette was asking when the boat was going to be finished. We set a goal for the third week in July. A date was set to have the truck come and pick the boat up and take it to Kentucky Lake near Paducah, Ky.

We wanted the boat documented, and the staff at the Valiant factory handled it. We were thankful for this, since only they could have traced her ownership to satisfy the U.S. Coast Guard.

We launched her July 27, 1994, at Green Turtle Bay in Grand Rivers, Ky. That day will always be fresh in our memories. At the end of February of 1995, I took early retirement in order to spend time living on and sailing *Bluebonnet*. We spent several months on the boat and in the fall of that year, we sold our home, put our furniture in storage, and motored down the Tennessee-Tombigbee Waterway to Mobile Bay. From there, we sailed along the Gulf Coast to Mandeville, La., on Lake Pontchartrain. The trip covered more than 900 miles, and the boat performed flawlessly. The engine did not use any oil. Raw water pump impeller replacement was the only problem. We have purchased a home in Mandeville and sail the boat on the lake and on the gulf.


Lessons learned

Would we do it all over again? Yes! Would we do it the same way? No! There are many things we would change, but that is all part of life. You learn by doing, and as you learn you try not to make the same mistakes over

again. To a couple who had been sailing a 20-foot boat on inland lakes, a 32-foot boat seemed like *the Titanic*. However after we sailed her and got used to sailing on the gulf and living aboard for longer periods, we got to thinking that maybe a Valiant 40 would have been the “perfect boat.” However *Bluebonnet* is comfortable, easy to sail, and so pretty we wouldn’t want to part with her. Besides, no boat is big enough for everything you want from a practical standpoint. You have to make choices and learn to compromise. I have a theory that, as your boat doubles in size, the things you want on it square.

We have continued to upgrade her. We added a Bimini, refrigeration for the icebox, and a new propane galley stove (a happy cook is a happy boat). There was a new dodger that was worth its weight in gold on the waterway in November. There was the new mainsheet traveler system. The old one had frozen bearings and was an orphan when it came to parts. And there was a roller furling system and a larger headsail. This past spring I installed Whitlock rack-and-pinion pedestal steering. All these additions have made the boat more comfortable and easier to sail. As you get older, this becomes more important.

When we went looking for a boat to cruise on upon retirement, we wanted a boat that would not restrict our dreams. We wanted a boat that would take us safely anywhere we wanted to go. We feel that we found and have such a boat. Whatever it is that keeps us from sailing off to the islands or New Zealand, it *won’t* be *Bluebonnet*.

Are the blisters fixed permanently? No. They won’t be fixed unless the gelcoat and several layers of laminate are completely removed and replaced with cloth and epoxy to completely seal in the retardant. Otherwise the retardant will continue to wick to the surface and form blisters or find a pinhole in the gelcoat and weep out. The blisters are not big maintenance items. Part of the annual spring maintenance is to open the few blisters that have cropped up and flush them out with water. Then along with general cleaning and topcoating the teak, I fill in the blisters, sand them down and give them a coat of paint. A nuisance, yes, but as Stan Dabney told us, “Kiss those blisters. Without them, you couldn’t afford the boat.” 

What is a Valiant 32?

The Valiant 32 was designed by Bob Perry as a smaller version of the successful Valiant 40. In the 1970s, a 30- to 35-foot boat was considered the optimum-size boat for a cruising couple. In response to this demand, the Valiant 32 was produced. About 67 were built in the late 1970s and early '80s. The boat is 32 feet on deck with a waterline length of 26 feet. The beam is 10 feet 5 inches, and displacement is 11,800 pounds. Ballast is 4,700 pounds, and the displacement-to-length ratio is 283. This translates into a boat that is moderate in displacement, yet extremely seaworthy. It has the traditional Valiant lines with the canoe stern and moderate flare at the bow.

The underbody features a modified fin keel with external ballast and a skeg-hung rudder. The hull is laid up in solid laminate, and the deck and cabin top is balsa-cored.

The interior, as you come down the companionway steps, has a U-shaped galley to port with a forward-facing navigation station to starboard and a quarterberth aft. Forward of the galley and nav station, are opposing settees with a drop-leaf table around the keel-stepped mast. The port settee slides out to make a small double/twin bed. There is storage behind and under the settees. Farther forward, the head is to port with a large hanging locker to starboard. The door to the head swings aft and will latch to the hanging locker to give a privacy area for the V-berth. Our boat has an optional large hanging wet locker with a storage shelf aft, instead of the quarterberth. We don't miss the

quarterberth, and lee cloths on the starboard settee work very well for a sea berth. Others have commented that they ended up with their quarterberth being used as a storage area anyway.

The boat is powered by a 4-cylinder 25-hp, L-25 Westerbeke diesel. Ours has never given us any problems. Tankage is 48 gallons of fuel and 80 gallons of water. The engine burns a half gallon an hour at hull speed which translates into a cruising range under power of more than 500 miles.

Most Valiant 32s are cutter rigged, which breaks the sail area down into an easily managed sail plan. With the mast stepped aft for the inner forestay, the boat

develops weather helm when winds exceed 15 knots, but with the first reef in the main, it balances nicely. The boat is a dry boat and sails best with the rubrail (about 10 inches below the caprail) out of the water. We have sailed in winds higher than 35 knots with two reefs in the main while remaining fairly comfortable and never feeling out of control. The standing

rigging is very substantial for a 32-foot boat. The headstay, backstay, and uppers are 5/16-inch 1x19 and the lowers, inter-forestay, and intermediate backstays are 1/4-inch 1x19. A few late V-32s were sloop-rigged with the mast stepped farther forward. This was in part to reduce the weather helm and to cut production costs. We have installed a large "pelican hook" on our inner forestay. For local light-wind sailing, we tie the inner-forestay and staysail in its bag back by the mast and sail the big genoa as a sloop.

In overall appearance, the Valiant 32 is similar to the Pacific Seacraft Crealock 34. Both boats have canoe sterns, but the form varies. The Valiant's stern is fuller and somewhat broader in the "hips," while the Crealock's stern is more pointed. While the Crealock 34 is two feet longer on deck, both boats have the same waterline length and beam. Displacement is similar. Interior layouts are practically identical.

Since Rich Worstell, the present owner of Valiant Yachts, moved production to Texas in the early 1980s, the Valiant 32 has not been in production.

by Norman Ralph

Jeanette Ralph enjoys her gorgeous "new" boat and the prospect of retiring in style.



Fuel and water filters *Simple insurance*

Picture a hot, windless Sunday afternoon as you power home on a glassy sea. Suddenly your engine slows and stops or overheats. Today of all days! You really did not need this, and it could have all been avoided.

How? By installing and maintaining filters to clean the fuel and water systems you and your boat need to operate successfully in a water environment. Filters come in many types and sizes and are custom-designed to serve a specific purpose. Many sailors tend to ignore the mechanical side of their vessels and assume the attitude that, "It's a sailboat; it should sail, right?" Well, yes, but the wind does not always blow in the desired direction or with the desired velocity. In times of need, our mechanical friends on board make the difference between a reasonable end to a cruise, no matter how long or short, and a long wait on a hot and windless sea.

Filters fall into three groups. **Required**, for fuel and engine cooling water. **Desirable**, for engine oil, potable water, refrigeration cooling, and seawater uses. **Cosmetic**, for air and sound filtration. Let's take a detailed look at each type available for today's vessels.

Pre-tank filters

Fuel filters can be defined as pre-tank, primary, and secondary. A pre-tank filter would be a funnel type that provides basic filtering of the fuel as it

is poured or pumped into the tank. This type of filter is very basic, but very valuable. They range from a plastic funnel with a screen in the bottom to catch dirt, leaves, and large contaminants such as bits of plastic, to the more sophisticated Baja filter. The Baja filters are aluminum funnels designed for cruisers who travel remote cruising grounds such as the Sea of Cortes, adjacent to Baja California in Mexico, where fuel is scarce and supplied in used 55-gallon drums of dubious origin.

Baja filters have two extremely fine stainless steel mesh screens to trap fine particulate matter (sand, dust, etc.) and a water-resistant filter to keep out a large majority of water that may be present in the fuel. The filters are really designed for diesel fuel but will assist in filtering gasoline. The Baja filter protects your tank from water-loving bacteria and helps prolong the useful life of the onboard primary and secondary filters.

Primary filters

Primary filters are the off-engine filters, usually added as after-market equipment to your fuel system. Their manufacturers have names like Racor, Fram, Sierra, and Groco. The filters come in single or multiple units, in-line or independent mount, spin-on element or turbine.

Filters are sized in accordance with the projected fuel flow per hour

required by a specific size engine. Diesel engines, because they return unused fuel to the tank, will have a larger flow rate in gallons per hour (gph) than equivalent gasoline engines but will consume less fuel per hour. The filter must be sized for the flow rate, not the consumption rate, of the engine. The gasoline engine either burns or discharges as unburned all fuel fed into it.

A rule of thumb for sizing filters for gasoline engines is 10 percent of maximum horsepower equals gallons per hour (gph). My 30-hp Atomic 4 gasoline engine has a potential maximum gph of $10\% \times 30 \text{ hp} = 3 \text{ gph}$. I don't think the engine will ever burn this amount as it never runs at peak power but, theoretically, it could. My primary filter is a Racor 200 series turbine with a 15 gph flow rate. Overkill? Sure but it works all season long.

A diesel engine flow rate is horsepower $\times 18\% = \text{gph}$, thus a 30-hp diesel would have a theoretical flow rate of 5.4 gph.

A filter that is oversize for the projected gph will work and last longer than an exact gph filter. A filter that is too small (less than the calculated potential gph) may restrict fuel flow and cause engine performance problems. With filters, bigger — within reason — is better.

by Bill Sandifer

ters: *policies*

The newest type of fuel filters is the spin-on canister type which looks like the familiar spin-on oil filter we use for our automobiles. They are very different on the inside, however. Spin-on filters are commonly chosen for gasoline engines, while spin-on and turbine type filters are commonly used on diesel engines. The larger diesels usually use turbine type filters. Pure fuel is more critical to diesel engine operation as the injectors of a diesel are particularly sensitive to particulate in the fuel.

Spin-on elements are easier to change out than turbine units, and when you change a spin-on element, you renew the whole filter. In turbine units, you can change the paper element and still have particles and water in the filter if you do not completely disassemble and clean all parts of the unit. Some of the fine contaminants in the fuel of my Atomic 4 adhered so tenaciously to the turbine vanes they required scraping to remove. Is it any wonder we need good filters when the contaminants in our fuel harden up like concrete?

Filters come as filters alone or as a combination filter and water separator. Three-stage filters have a turbine section for large particles or gross amounts of water, a coalescing ring to trap the remaining water, and a micron element to remove fine particles. Filters are classified by microns. Different engines have different micron requirements. Racor's standard filter size is 2 microns for their spin-on type

filter/water separators. Their turbine type has elements that can be interchanged between 2, 10, and 30 microns. A common combination is a 10-micron primary filter and a 2-micron secondary (on-engine) filter.

If we use a Baja filter when we fill up the tank and still have water in the tank, where does the water come from? Since boat fuel tanks are vented, regular air interchange between the atmosphere in the tank and the external atmosphere takes place. A cycle is established in each tank when the air heats and expands during the day, and excess air is expelled through the vent line. When the ambient air cools, the air in the tank contracts and sucks in

external air to equalize the pressure. The air that is sucked in is cool and damp, bringing moisture into the tank. This moisture condenses on the exposed interior of the tank forming droplets which fall into the fuel and settle on the tank bottom in the form of water.

If we never introduced water from contaminated fuel into the tank, we would still have some water in the tank from the condensation process. A good way to reduce this air interchange is to keep the tank topped up with fuel, thus limiting the air space available in the tank and minimizing atmospheric condensation.



In an effort to keep operating even with a plugged fuel filter, boats with larger engines may have multiple primary filters piped in such a manner that one filter may be used in the system while the other filter is being cleaned. This setup is more common to power boats and trawlers than to sailboats, but has definite merit. Multiple filters can be piped together as Primary A, Primary B, and so on. Finer and finer filtration is possible as the fuel passes through each stage. Usually single filters are designed to clean the fuel down to 2 to 10 microns (a micron is one one-thousandth of a millimeter). Filters are manufactured down to two microns so a multiple filter system could commence with a Primary A at 30 microns, Primary B at 10 microns, and a Primary C at 2 microns. At 2 microns, the fuel is very, very clean. Commercial firms that advertise that they “polish” your fuel use this multiple filter approach plus a centrifuge for a complete cleaning.

When considering a multiple filter system, remember that two filters piped in parallel to a common manifold will have a combined gph of the capacity of both filters, e.g., two 60-gph units will equal 120 gph. Three 60 gph filters piped in series (Primary A, B, and C), will have the gph of the single unit which is 60 gph.

Before we leave the primary filter discussion, let’s talk about filter maintenance. The best way to determine the state of cleanliness of a primary filter is to install a vacuum gauge on the discharge side of the filter. The gauge shows how hard the engine is having to “suck” to pull fuel through the filter. The higher the vacuum, the dirtier the filter and the greater the need to replace the element and clean the filter unit.

Racor makes a vacuum gauge that replaces the tee handle on the top of their turbine filter. This makes for a very neat installation. Individual vacuum gauges on single or multiple filters may be teed into the discharge line of each filter to reveal the state of the filtering element. The other ways to determine when to change a filter (other than vacuum gauges) are more subjective. A good method is to rely on running hours to set a time to change filter elements. This can be anywhere from 50-hour intervals to 200 hours

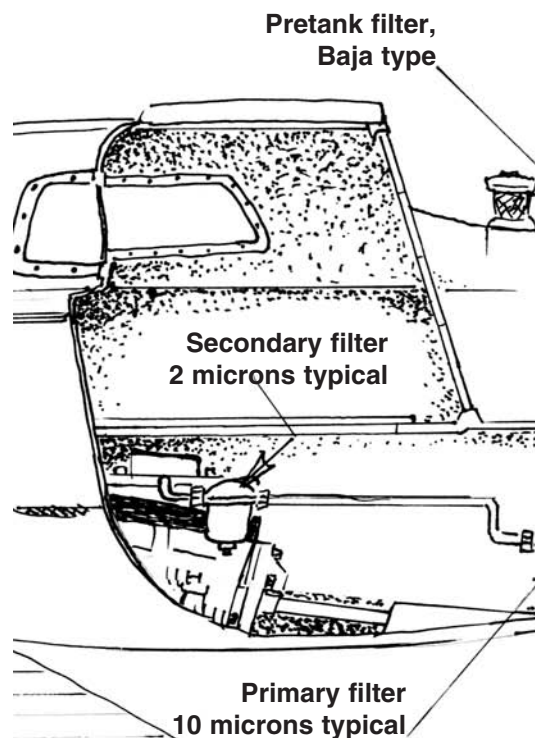
depending on how careful you are in providing clean fuel. This is where the Baja filter will help extend the life of the primary and secondary filters.

If you do not use a pre-tank filter and put a load of contaminated fuel in the tank, a brand new filter may only last five minutes. Use a pre-tank filter or know, for sure, you are pumping or loading clean fuel. When I was a kid and worked at a fuel dock in Oyster Bay, New York, Gulf Oil provided off-pump, in-line gasoline filters in an effort to assure clean, waterless fuel. One of my daily jobs was to check the large storage tanks with a long rectangular wooden combination fuel gauge smeared with water finder paste to see how much fuel we had and if it had any water in it. Some ports today are not as careful about providing clean fuel. Even fuel purchased at the local gas station may not have an in-line filter and may give you a good dose of water.

Secondary filters

Assuring clean fuel to start with is your best guarantee of trouble-free engine performance. After the fuel has passed through the pre-tank and primary filter stages, it flows to the engine and the secondary filter. The secondary stage may be as simple as a screen in the intake line of a gasoline carburetor or another canister-type filter mounted directly on a diesel engine. The secondary filter on my Atomic 4, which is equipped with an electric fuel pump, is in the bottom of the fuel pump itself and is a fine nylon screen on a round plastic frame. I recently received a communication from Don Moyer of Moyer Marine recommending the addition of an in-line filter between the fuel pump and the carburetor. Compared to a 10-micron primary filter, my screen is pretty coarse, but then this is a gasoline engine, not a diesel.

The engine manufacturer normally provides the secondary fuel filter, sized to the engine. Other than carrying a spare element or having a screen you can clean, there is little to be done with the secondary element. If the primary filter system is efficient in cleaning the fuel, the secondary system should be trouble-free except for an annual



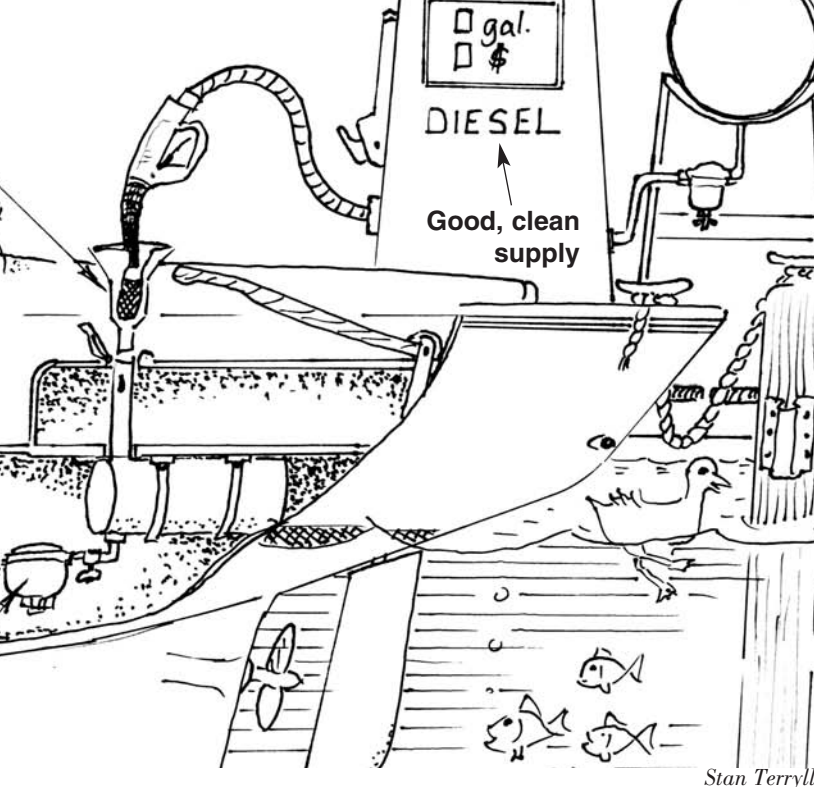
maintenance. Remember, clean fuel is the lifeblood of your engine. Take care to purchase a high quality marine (not automotive) type primary fuel filter and learn how and when to maintain it. You’ll really be glad you did when you are powering home over a hot or cold windless sea.

Engine overheating

In our second problem scenario, the engine overheats. The probable cause is trash in the seawater intake or strainer or a failed water pump impeller. Most sailboat engines are seawater cooled, either directly by seawater circulation or indirectly through a heat exchanger. The seawater enters the hull through a thru-hull intake with a perforated round bronze screen over the outside or a rectangular finned thru-hull. It is possible for the screen or fin to plug up with foreign debris or marine growth, but if the engine was running cool when you left the mooring and suddenly overheats, the problem is probably elsewhere.

I once chartered a sailboat in the Bahamas. I left the dock under power, and within five minutes the engine overheated. The problem was marine growth on the seawater strainer. The boat had not been properly maintained. On my own Pearson, I routinely check all the thru-hulls with a mask and snorkel. Zebra mussels, barnacles, and even oysters love the cozy atmosphere of a thru-hull connection.

If it is not the thru-hull, then where? The next step is the seawater



strainer. This strainer should be installed in the seawater intake line between the seacock and the downstream distribution. I say downstream distribution because it is possible to use the seawater intake for more than one purpose, but that's fodder for another article. The seawater strainer should be as large as practical. The larger it is, the more trash it can hold before becoming clogged. Groco makes a fine line of bronze and Plexiglas seawater strainers. Some other manufacturers are Puritan, Par, Vetus, and Forespar.

A pre-sail checkout should include making sure the seawater strainer is clean. A few minutes' work will assure a trouble-free trip. I realize it is a pain to crawl into the bilge to check the seawater filter, but it is worth doing. I know it's time to diet when I cannot easily climb into the cockpit seat lockers to check out the seawater filter. (Something about the ratio of sun to beer intake, according to my wife.)

Finally, if it is neither of the above, check the seawater pump impeller. Old impellers tend to throw off their blades, which then get caught in the engine cooling system and block the water flow. The only defense against this is to replace the impeller annually. Globe/Barco impellers are made of niprene, which is an elastomer combining properties of rubber, nitrile, viton, and neoprene. The impellers are self-lubricating. They are used by the U.S. Navy and Coast Guard and are

time it will take. On some engines, it is fast and easy, and on some it takes several hours. *(Editor's note: We remove ours during winter layup and lubricate the housing with Vaseline or water pump grease when we reinstall it.)*

Water filters

Next let's look at filters we need for our health and well being. Consumable water is a requirement for all manner of life on earth, sailors included. The concept of fresh water in our homes and on our boats is sometimes a misnomer. Scientists studying pollution worldwide are coming to the conclusion that water quality and quantity around the world is in serious decline and will constitute a major problem in the 21st century for the developed and developing countries of the world. Bacteria and toxins, along with chemical and hydrocarbon contaminants, endanger all of our earth's water. Antiquated water treatment facilities are ill-equipped to handle today's level and type of pollutants. Many of the new breeds of bug, especially cysts like *Cryptosporidia* cannot be effectively removed from the water supply. If this is true of the municipal water supply of the United States, consider the out islands and other remote locations. Even rainwater can pick up contaminants from the atmosphere on its way to the earth.

Now consider the water on board our good old boats. It may be anything but pure and fresh. It may taste of the bilge, smell of fiberglass, look like

sold by Defender Industries, West Marine, and others. Carry at least one spare impeller, if not two.

If you change your impeller every season, or at least inspect it, you will know which tools are required and how much

mildew, and carry particles of unknown origin. We need to take care of this most precious commodity. Remember, a person can live without food for more than 30 days but cannot live even five days without clean water.

We can have clear, sweet, clean fresh water on our boats through the care of our freshwater tanks and the use of filters to cleanse the water of many of its impurities prior to use.

Pre-tank water filters are the equivalent of the Baja filter, which is used as we fill our fuel tanks. The least we can do in this regard is to use a funnel with a fine mesh screen to remove any solids that may be present in the water and, of course, to carefully select the source of our water in the first place. The best we can do is to use a pre-filter such as General Ecology's Dockside Pre-Filter to keep dirt and sediment out of our freshwater tanks.

Letting the water in the fill hose run for a short while will go a long way toward assuring that we are getting fresh water from the supply rather than the water in the hose. Water that has been sitting in plastic hoses will usually add an unpleasant taste to your water supply unless you have a special potable water hose made to eliminate the problem. Even if you do use a special hose, unless you can hook up to the hard piping of the source there may still be conventional plastic hose between your hose and the water source with the associated taste problem.

Water will also contain dissolved chemicals and contaminants that cannot be seen, tasted, or smelled but are not good for humans. These can be parasitic cysts, solvents, and other nasty critters and substances. Pre-filters will not remove these contaminants. Our water tanks provide an almost ideal breeding environment for these nasty substances to grow and multiply. Fungi, *Giardia* cysts, amoebic cysts, microscopic worms, larvae, and other undesirable creatures and plants thrive in this environment. The problem is exacerbated by taking on water from different sources. Various water supplies contain different pollutants which can "gang up" to create problems they would not normally cause by themselves.

We are usually our greatest enemy in the fight for clean water. We fill the tanks at the beginning of the season

and use the water sparingly during our time aboard. Weekend to weekend the water sits in the tank and “grows” things. We don’t want to waste our water supply and dump it every week, and we can’t clean the tank every week, so, what to do?

The first step in assuring a clean, sweet water supply is to find a supply that is sweet to begin with. We are going to use a lot of water to clean up our onboard supply. Next, we add 2/3 cup of bleach (sodium hypochlorite) diluted in one gallon of sweet water for every 10 gallons of tank capacity. Fill the tank to the brim with the mixture and let it sit for 24 hours. Dump all of the water and start over, this time add one quart of white vinegar for every 5 gallons of tank capacity, fill to the brim again, and let it sit for 48 hours. Then dump it — all of it.

Next, fill the tank with sweet water with no additives, let it sit for another 24 hours and dump it. Refill the tank adding one teaspoon (1/6 oz.) of sodium hypochlorite for every 10 gallons of water. The water in your tanks should now be sweet and clean. This procedure is time-consuming but not hard to accomplish. The hardest part will be assuring you have completely drained the tank at each stage of the cleaning process. *(Editors’ note: If you have any physical reaction to water with bleach in it — a sore throat, for example — keep flushing until you don’t, and then don’t add more bleach. We have experienced problems with bleach, even in minute quantities, in our drinking water.)*

The bleach should have killed off any mold, mildew, or other bacteria in the tank. It will not kill cysts and parasites, but we will handle them with our onboard filters. The vinegar will neutralize the bleach taste and fiberglass smell. The series of rinses will remove any particulate matter leaving a clean water supply.

Be sure, when you are accomplishing the above, that you flush the supply lines from the tank to the fixtures, as these sometimes enable things to grow. Pulling water through the system for all treatments will accomplish this for you easily. You need not pull all the water through the system. Pull till it runs clear, then dump the rest. As the water is not hydrocarbon contaminated, it can be pumped overboard through the bilge pump system.


Our water supply is now back in business, and all we need is a final treatment to remove those things we cannot see but will hurt us. We need a high-quality water filter between the tank and the outlets. Water filters range in design from UV (ultra violet) water sterilizers such as Water Fixer to in-line carbon filters similar to units we would use in our homes. There are sediment filters, taste filters, softeners, odor filters, and Structured Matrix technology that combine the capabilities of several types of filters. The Seagull IV System has an ultra fine submicron filter layer to remove all visible particles combined with a molecular sieving and broad spectrum absorption layer which

removes chlorine, organic chemicals, specific pesticides, herbicides, solvents, taste, smell, and color. The

final layer of the filter works by electrokinetic attraction removing small positively charged particles of the larger contaminants by attracting them to the negatively charged surface of the filter to remove colloids and other even smaller particles than those removed by the microfine filtration layer. By the time the water has passed through a filter of this type, it is probably purer than the tap water we have at home.

The cost of these filters runs from \$30 to \$500. You definitely get what you pay for, but for most of us a good annual tank cleaning and a \$30 carbon filter will meet all of our requirements. Water purifiers are available if the quality of water you receive in a foreign port is in doubt. Purifiers can be used in conjunction with other filters to clean up most potable water problems. Remember, the water you take on must be potable. The world’s best filter cannot make contaminated water safe to drink.

The filter you have on board will need to be serviced once a year, preferably in the spring when you flush the tank after the winter layup. This usually means pulling the old cartridge and installing a new one at a modest cost.

The best way to assure a clean water supply is to exercise diligence in selecting the source of supply in the first place. Protecting your own and your family’s health are worth all the effort in cleaning your water supply. 



Sources

General Ecology, Inc.

Seagull IV System dockside pre-filter
151 Sheree Boulevard
Exton, PA 19341-1292
800-441-8166
610-363-0412 fax

West Marine

Racor water filters
System IV in-line water filters
Aqua City in-line water filters
The Water Fixer UV sterilizer
Genova Products, water softener
800-262-8464

Defender Industries, Inc.

Seagull IV System dockside pre-filter
Aquabon water freshener
Ametex water filter system
800-628-8225

“SHIFT WORK” WHEN AT SEA

Ah, sailing! A time for relaxation: no alarm clocks, phones, or deadlines to meet. That’s the perspective of dreamers, perhaps, but it’s not quite the way we’ve experienced our cruising lifestyle. Instead, it’s a life of short sleep cycles and watch duty and of abrupt, unplanned awakenings at anchor. It’s a life of “shift work” at sea and of being “on call” at anchor.

The shift work occurs on long passages. Of course we knew there would be the inevitable overnights as we ventured offshore. This didn’t worry us because our time would be divided into watches during which the off-watch crew could sleep (more or less) soundly. Once we arrived, however, we expected to experience tranquility. We should have known how it would really be after our experiences on Lake Superior where the charter boat that anchored off our bow wound up bearing down on our beam at 0200 as the wind changed our swing radius, and where storms came up suddenly and that secure anchorage changed to a lee shore. Somehow, these seemed like the exceptions. But we eventually realized, once we began living aboard, that life at anchor would cause us to be on call each night.

Just because cruisers live aboard does not mean they are experienced in setting a foolproof anchor. We have to be continually aware of our own situation and that of our neighbors.

Storm fronts moving through, even in the Bahamas, are always a cause for being awake and alert. In Nassau, we kept an anchor watch for over 48 hours as fierce 60-knot winds blew the length of the poor-holding harbor. We were on a rare mooring, luckily, but we needed to watch for runaway boats whose anchors might break loose allowing them to suddenly veer down on their neighbors. Their anchors could then tangle on other anchor lines, creating a domino effect.

But there’s more to the cruising lifestyle than windshifts and anchor-dragging incidents. An anchor down in a new anchorage always means “first-night jitters.” Is there a current that changes with the tide? The current flowing through Nassau Harbor is swift and changes direction every six hours. After a while you can become aware of your boat’s direction and position changes even while sleeping. Is there enough scope for the amount of tidal change or enough depth beneath the boat for a low tide? What is the bottom like? Did you dive to ensure good holding? When we arrived in a familiar Bahamian anchorage in the dark after a long day, we were unsure of the state of the tide. The “bump, bump” of our keel on the sandy bottom awakened us at 0300. Because the engine wouldn’t budge us, an “all-hands fire drill” followed with the launching of our dinghy off the foredeck, then paying out anchor and rode to kedge ourselves forward to deeper water. Off the southern Bahamian island of Mayaguana, the guidebook’s recommended anchorage turned out to have a bottom made of rock-hard coral scoured of all sand and not secure enough for a much-needed sleep after a 30-hour passage from Rum Cay.




Cathy Hauptert and daughter, Mara

There are other dynamics to take into account. Are you too close to a neighboring boat that has stretchy nylon rode which allows it to swing freely while your heavy chain keeps you in one place? Another thump awoke us in the pre-dawn stillness in Luperon, Dominican Republic. After a windshift laid our chain out differently, our neighbor’s boat stretched on its nylon rode into our chain’s radius. There was no damage, thankfully, except to egos.

Living aboard in the Caribbean also means being on call to close ports and hatches when it rains — even if it’s a brief shower — then opening them again for every breath of cooling breeze. If you use a wind scoop, this can extend the time before your head hits the pillow again. If we’re lucky and get a good amount of rain, we are immediately up gathering water, even at night.

Being on call while living aboard, also means being alert to those strange noises that can occur anytime. The rhythmic clink of objects that have outwitted their padding always seems to occur when we are tucked snugly in the V-berth. Then there were the cracks and booms of impromptu fireworks that awakened us in Miami, Nassau, and Puerto Rican harbors. And we’ve experienced haunting, throaty sounds echoing in our bilge. That time we were up checking for leaks without and within until we learned that those bizarre sounds were made by aptly named “grunts,” small fish that feast in warm waters on many boats’ bottom growth.

And finally, our daughter, Mara, and I know we are all on call anytime my husband, Dan, hears the loathsome drone of a mosquito in the dark. When that happens we know the word is, “No one sleeps in this boat until it’s dead!”

Come to think of it, it’s a good thing the cruising life has no alarm clocks, phones, or deadlines to meet, since life aboard offers so many unplanned interruptions and nighttime “emergencies” to contend with. A life of relaxation? Well, yes and no. 

AND “ON CALL” AT ANCHOR

Albin Vega: mod

The first in a series of reviews of small seaworthy sailboats from John Vigor's newest book, Twenty Small Sailboats to Take You Anywhere

You'd hardly guess by looking at one that the Albin Vega has earned herself a reputation for being an outstanding offshore cruiser. She's a modest-looking little fiberglass sloop, totally lacking the massive fittings, bowsprits, and laid teak decks that most people associate with real deep-sea boats. In fact, if you didn't know how tough she is, you might judge her to be rather frail. The slight reverse sheer gives her a humpbacked appearance from some angles (though not an unsightly one) but otherwise her general appearance is quite unremarkable.

Like so many of the world's seaworthy boats, the Albin Vega has Scandinavian origins. She was designed in Sweden in 1964 — the early days of fiberglass construction — by Per Brohäll, who obviously admired the long keel and skinny beam of the Folkboat. The Vega was given a short counter stern with an inboard rudder, however, instead of a transom and an outboard rudder, and her cabintop, raised in two sections, gave her more room below. Well over 3,000 Vegas were built in a production run that extended more than a decade, and thousands of them are now sailing all over the world.

Brohäll set out to design a boat that was light, fast, roomy, seaworthy, and relatively cheap. This was a seemingly impossible task because sailboat performance is the distilled essence of a series of compromises. What is seaworthy, for example, is not usually fast. What is roomy is not necessarily cheap. But Brohäll succeeded in producing one of those rare designs that exceeds most people's expectations in most areas. The one

obvious thing the Vega lacks, in comparison with more modern designs, is space down below. But perhaps the comparison is unfortunate because modern designs deliberately sacrifice ultimate seaworthiness for interior space. The understanding is that today's roomy coastal cruisers will never need to fall back on the resources of seaworthiness an ocean voyager requires. Per Brohäll never

had to make that compromise. From the outset, he aimed for seaworthiness.

It's the Vega's comparatively narrow beam of exactly 8 feet 0 inches that makes for snugness down below, of course. Nevertheless, the accommodations are comfortable for two adults on a long trip, and perhaps even for two adults and two children on a shorter vacation trip.

Basic design

The Vega has a shallow hull with narrow beam and fairly hard bilges. Her keel is long, but not full-length, running for only about half the waterline length, from about the mast to the after end of the cockpit well. While there is more than sufficient length for good tracking, especially downwind in the trades, this keel reduces the surface area (and therefore friction) of the "traditional" deep-sea keel and helps the Vega perform better in light air.

The rudder is attached to the aft end of the keel, but while this is a very strong way to support it, the rudder itself has revealed some weaknesses. There is no cutout in the rudder for the propeller, which, unusually, emerges from the deadwood under the counter but above the rudder. The hull is solid fiberglass, said by the builder to be 3/8-inch thick at the sheerline and 1-inch thick at the base of the keel, but the

by John Vigor

Editor's note: *As this issue was going to press, we bought the rights to publish all the chapters to John Vigor's new book, Twenty Small Sailboats to Take You Anywhere. We did some serious content juggling to introduce the series with this issue. Although this isn't an alphabetically prioritized list, we decided to begin with the Albin Vega. Then we did a fast shuffle, contacting Vega owners from among our subscribers to request illustrations for the article: photos, brochures, line art. As you see, they came through for us, and we're grateful.*

Now we're looking for the same from sailors of the Bristol Channel Cutter (scheduled for the May issue) and the Cal 20 (which will run in July). *Bristol and Cal owners, let us know if you've got photos of interiors, your boats at the dock, and especially of your boats under sail; old brochures and manuals; line drawings; owners' comments; or resources (organizations or vendors) which might be helpful to other sailors with your boats. We will return all materials and savor the comments. We look forward to hearing from you!*

lest, but tough

deck and cabintop are cored fiberglass for lightness. It has been reported that you can press in the cabin sides with your bare hands. Of course because a panel flexes, it doesn't necessarily mean that it is too weak, but continual flexing will eventually cause fatigue and cracks, so in a boat intended for long passages at sea, you'd need to stiffen it with internal stringers or bolt on a large plywood or acrylic storm cover outside.

The caulked, internal flanges of the hull and deck are bolted together with 5/16-inch stainless steel bolts every 5 inches, which makes for a reassuringly strong joint and few leaks. The sheerline, as mentioned above, is reversed slightly to improve headroom below. It is actually almost a straight line from stern to bow, but the eye increases the humpback effect because it is trained to see a concave sheer in that spot. The bows, therefore, look lower than usual for the size of the boat and appear to lack buoyancy, but there is no evidence that such is the case.

The low topsides cut down on wind resistance, which means the coachroof must protrude more to provide adequate headroom below. Brohäll resisted the temptation to create a high, unsightly superstructure that would accommodate a standing 6-footer anywhere below. Instead, he placed a low cabin trunk over the head and the aft end of the V-berth, and then stepped it up another story to give 5 feet 10 inches of headroom in the main saloon and galley. The result is a fairly large superstructure, but one that blends pleasantly with the hull and avoids boxiness. The cockpit is self-bailing and small enough not to cause concern about pooping, but big enough for two people not to get in each other's way on long trips.



Sidney Rosen, who runs the American Vega Association, sent this photo of a Vega under sail. The photo's from 1991, and the boat is Norman Meissner's. See sidebar at the end of this article for more information about contacting the American Vega Association.

Early Vegas were powered by gasoline engines, the 13-horsepower Albin or the 15-horsepower Volvo. Later models carried Volvo diesel engines, including the 10-horsepower MD6A (which was generally thought not to have sufficient power) and the 13-horsepower MD7A. But the really interesting thing about the Vega's power train was the Combi variable-pitch propeller, which was used without a transmission on the early boats. Even when transmissions were added at a later stage, the variable-pitch prop was retained. It was controlled by a single lever that changed the propeller pitch, from full astern to full ahead, without

the need for a clutch. When the boat was under sail, the prop could be feathered for least resistance. It was reportedly a very efficient, but complicated and expensive to repair, piece of machinery.

Accommodations

The Vega has comfortable bunks for four, two 6-footers and two of 6 feet 6 inches, but it would be a mistake to plan on long ocean crossings with four adults. Two would be plenty. The accommodation layout is logical for a boat with a 23-foot waterline, starting with a chain locker up forward, followed by a V-berth and a toilet just forward of

the main bulkhead. The head faces a hanging locker on the other side of the gangway and can be closed off from the main cabin, but remains open to the V-berth.

Aft of the main bulkhead are transom berths to port and starboard,



the starboard one being 6 inches longer than the port one. The table between the berths fits into sockets in the cabin sole, so it can be yanked out and stowed away — or dropped into similar sockets in the cockpit for that sunset drinks-and-snacks session.

At the after end of the cabin, under the sliding hatch, the galley divides itself into two portions, one each side of the companionway steps/engine cover. The cooker lives on the port side, and a sink and icebox on the starboard side. Cubbyholes and lockers in the galley and the main cabin provide ample stowage space for gear and provisions for two people on extended voyages.

As usual in a boat of this size, there is no dedicated chart table, and the cabin table supplied with the boat is unlikely to be steady enough for serious navigation business in a seaway. But a removable or fold-down plywood table could be made easily enough to fit over one end of a berth or over the icebox/sink area.

All the deadlights are fixed in place with rubber gaskets, which means you can't open them, so it wouldn't be a bad idea to add a couple of Dorade ventilators, although the existing ventilation system works better than most. If you're heading for the tropics, you'll need all the ventilation you can get.



The rig

The Vega's rig is entirely conventional and easily handled. This masthead sloop has single spreaders and two lower shrouds on each side. The mast and boom are aluminum, and neither is of excessive proportions, but the mast is stepped on deck, which brings problems in time

because few designers or builders ever manage to compensate adequately for the enormous downward thrust a mast produces. The best way to transfer that thrust is to carry the mast down to the keel, but on narrow-gutted boats like this one it gets in the way so much down below that most buyers won't tolerate it. When it comes time to make repairs, however, they may live to regret it. More on this later.

The main boom is quite short, yet the mainsheet traveler can still be placed aft of the rudder head, so the sheet is at the helmsman's fingertips. Single winches on the cockpit coamings can handle everything from the spitfire jib to a 150 percent genoa.

Performance

Initially tender, the Vega stiffens up at moderate angles of heel, and despite her shallow draft she works to windward reasonably well. She is very handy indeed off the wind. A Vega called *Little My III* crossed the Atlantic from the Cape Verde Islands to Barbados in 14 days, 16 hours. Richard



That's Mike and Cheryl Warren's boat, at top. The Warrens live in Ohio, but sail her in Texas. (One nice thing about these boats is you can move them from place to place as the mood strikes you . . . a novel concept for many keelboat sailors.) Notice the unusual cut of the bow pulpit. Timothy Gill has some interesting points to share about this concept in his sidebar at the end of this article. Gunnar Asker's boat, Wind Harmony, is the platform for feeding the ducks in the lower photo. Gunnar and family sail on Long Island Sound. Carl and Maria Asker are in the foreground; Gunnar's wife, Louise, is behind them. Carl is Gunnar's great nephew.

Henderson, commenting on the trip in his book *Singlehanded Sailing* (International Marine), says: "She reportedly surfed in the trade winds at speeds up to 13 knots, yet was dry, comfortable, and easily managed. Her excellent downwind behavior might be attributed to her well-balanced hull with flattish run, modest displacement, and moderately long full keel."

Her working sail area, while correctly proportioned for an ocean cruiser, is too modest to give her scintillating performance in light air, so it would be wise to carry a large nylon drifter and/or an asymmetrical cruising spinnaker if you're not planning to motor through the doldrums.

In general she has a reputation for being extremely well behaved. She is easy to steer and stays under control even when hard pressed.

Known weaknesses

Here's what to watch for if you're contemplating buying an Albin Vega:

- Weakness of the rudder. There seems to be a problem with the design and/or engineering of the rudder. John Neal, who sailed the Vega *Mahina* 14,000 miles in the South Pacific in the 1970s, lost his rudder while hove to in a storm. Check the fittings, particularly the heel fitting, and test the rudder for movement while the tiller is held firmly in place.
- Oilcanning of the decks or cabin sides. The former may indicate delamination due to saturation of the core, the latter lack of stiffening stringers.
- Lack of control in reverse gear. The unusual situation of the propeller, aft of the rudder, seems to create difficulties with steering the Vega when she's in reverse gear. She will need to be moving astern at a fairly rapid clip before the rudder takes effect, and while she's building up speed there's no knowing where she might go. Probably it will depend on the direction of the wind — it often happens (not only to Vegas) that a boat going astern will weathercock downwind, that is, pivot from the propeller and point her bow downwind; nothing you can do will



In top photo, Cheryl Warren enjoys the comforts of home below decks. Since this photo was taken, she's recovered the cushions. The photo below is of the little doll house just purchased by Sam and Rachel Thompson. Named Kwan Yin, this Vega came complete with all the original manuals and an updated interior. In spring they will sail her along the New England coastline.

prevent it. It's just a question of experimenting and getting to know your boat. It's not a serious flaw. Vegas don't spend much of their lives in reverse gear.

- Compression of the deck and bulkhead beneath the mast. In *Log of the Mahina*, John Neal's story of his adventures in a Vega in the South Pacific, he tells how he discovered

damage to the main load-bearing bulkhead. One of the two supports on the bulkhead had broken away and destroyed a 3/8-inch stainless steel bolt. The support had punched through the fiberglass cabin sole. Furthermore, the port side of the bulkhead had started a nasty warp at the top.

Check the overhead beams that transfer the thrust of the mast to the bulkhead supports. They need to be much stronger than many builders make them. Also check the glue and mechanical bonds between the supports and the bulkhead. And be sure that the massive downward load from the bulkhead is properly transferred from the fiberglass cabin sole to the hull of the boat.

Owner's opinion

Tom Currier, a software engineer in Pembroke, N.H., got to know Albin Vegas well when he used to deliver them around the coast for his father, who had an Albin dealership. But he got to know them even better after buying his own Vegas. He owned two — *Resande* and *Skidbladnir* (Little Liferaft) — for a total of seven years.

He has owned other boats and sailed on many more, but his opinion after all those years of experience with the Albin Vega was very firm: "Out of any cruising boat I've ever owned, she has the best sailing characteristics. She's a sweet boat, fast, and well balanced. She has no weather helm; you can always balance her with the

sails alone. She also points amazingly well."

Tom said his Vegas felt stiff after an initial 10 or 15 degrees of heel, and didn't need a reduction in sail area until the wind got over 20 knots. In 40-knot winds, with 12-foot seas, he found the Vega easy to handle under a storm jib and rolled-down main. "She just kept sailing," he said. "She's a very solid boat — though she was very wet, of course."


The engines in his boats were a Westerbeke 13 and a Yanmar 9 diesel. He found that the Westerbeke was a bit bulky and difficult to get to. The Yanmar was smaller, lighter, and easier to maintain. "It was plenty powerful enough."

Tom asserted that the variable-pitch propeller was very good when new — he loved it — but it wore out with age and was hard to get parts for. As people replaced the engines, they also replaced the variable-pitch setup with standard shafts and transmissions.

He didn't think the cockpit was too big for safe deep-sea work. "I thought it was a perfect size, and its outstanding feature was the high

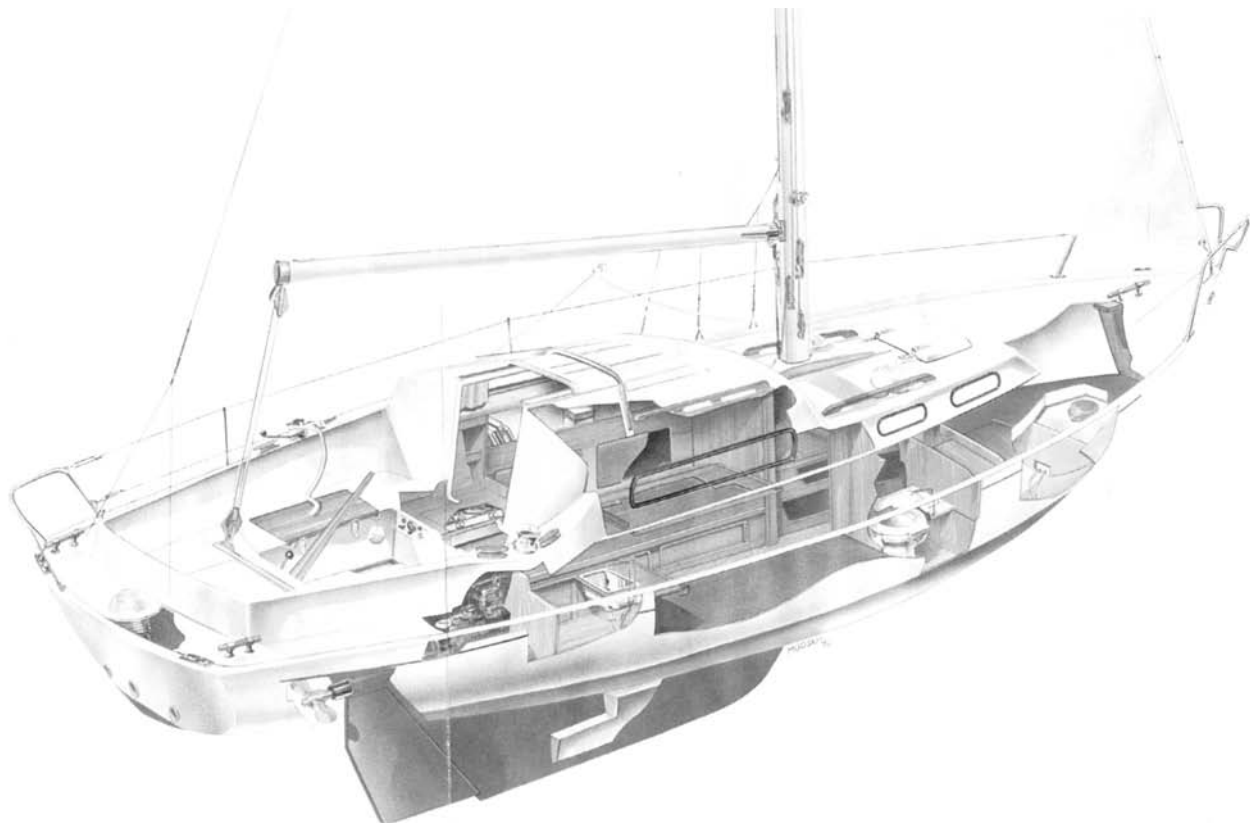
coamings — they kept things inside the boat. There were good drains, and if you plugged them up you could take a bath in the cockpit."

Neither of the Vegas he owned ever had any problems with osmosis or delamination, and he never noticed any flexing of panels. "If somebody experienced oilcanning, it might have been the result of an inadequate repair job," he surmised. As far as the mast compression problem goes, he felt the best solution was to fit a solid post from beneath the mast step to the keel.

"It's fairly evident when this problem crops up," he said. "I know some owners who have fitted compression posts and cured the problem. You can still get around the post. For extended ocean voyaging, he'd recommend complete system rebuilds for the electrical wiring and the rigging, both standing and running. "None of which is a very big deal," he added. 

© John Vigor

John's new book, to be published by Paradise Cay (800-736-4509) later this year, will be available on Good Old Boat's bookshelf.



Resources for Vegas

If you're the owner of an Albin Vega, and you haven't yet found the American Vega Association, they'll find you. You might as well give up and contact Sidney Rosen today. Sid was a founding member of the Vega One Design Chesapeake Association in the early 1970s. This group later grew to include sailors throughout the rest of North America.

Sidney Rosen
10615 Whitman Circle
Orlando, FL 32821
407-352-9250
SIDNOCK@aol.com

The organization has recently put up a webpage by Dave Pomerantz: <http://www.targetsoft.com/vega>. Sidney, who just turned 80 by the way, puts out the organization's monthly newsletter called, quite simply, the *Vega Newsletter*. More importantly, he's the link for owner-to-owner discussions.

In comparison

- Safety-at-sea factor: 8 (Rated out of 10, with 10 being the safest).
- Speed rating: Fast off the wind. Once holder of the record for the fastest Atlantic crossing.
- Ocean comfort level: One or two adults in relative comfort; two adults and two kids in less comfort.

In short

Albin Vega 27

Designer: Per Brohäll (1964)

LOA: 27 feet 1 inch

LWL: 23 feet 0 inches

Beam: 8 feet 0 inches

Draft: 3 feet 10 inches

Displacement: 5,070 pounds

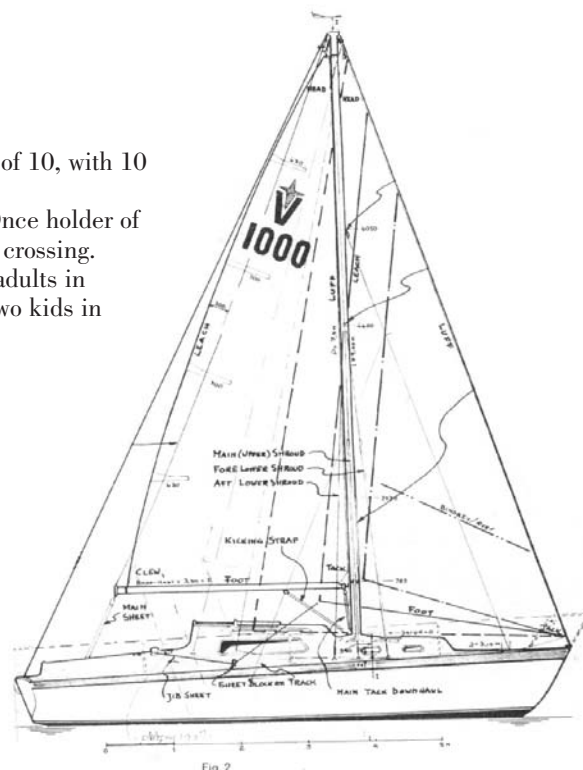
Sail area: 341 square feet

Ballast: 2,017 pounds

Spars: Aluminum

Auxiliary: Conventional gasoline or diesel with variable-pitch propeller.

Designed as: Fast, light, ocean cruiser with berths for four adults.



One owner's comments

Editor's note: When we contacted Timothy Gill with our request for information on the Vega, he said, "You have struck the jackpot." He told us he "bought a time capsule from 30 years ago" when he purchased Kelva. She had previously had only one owner, and all original brochures and manuals came with the sale. The boat was in original condition inside and out and only had 247 nautical miles on the log and 14 hours on the original Albin gas engine. Some of Timothy's comments are from a letter which accompanied the drawings which we reproduce here:

"There are a couple of facts concerning the Vega that I thought may be of interest to your readers. One being the strange bow pulpit configuration. A lot of people would believe that it is made as such to accommodate the mast when lowered; but actually, being a Swedish boat, it was designed to accommodate the rugged coastline of the North Sea in Sweden when mooring bow to the coastline. It's actually a step-through for this purpose.

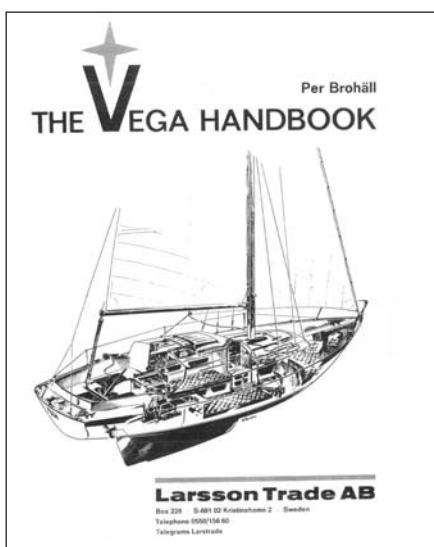
"Another fact that I thought was really interesting is the offshore capability of the Vega. Numerous ocean crossings have been made, including of course John Neal's South Pacific voyage and the Atlantic Circle voyage done by Jonny Birkelund in 1997. Birkelund's voyage was from Norway down the west coast of Europe to the Canaries then

south across the Atlantic to the Caribbean and back up the east coast of the U.S. and across the North Atlantic to Norway. All the miles were done single-handed with very little difficulty.

"All this speaks for the strength and integrity of the Vega and its hull. Larsson Marine took great care in the layup of its hulls. The fiberglass was used in a translucent fashion so the builders could actually see through it and be assured that there were no voids in the layup.

"(On my boat) the 'dreaded' Combi-Unit has worked flawlessly. It combines the throttle and the propeller pitch into one function, which works wonderfully when picking up a mooring. The boat is a bit tender. However it stiffens up nicely at 15 degrees of heel. It is also quite a dry boat, even in rough conditions, partially due to high coamings in the cockpit. All in all, the Vega is affordable enough to be a great starter boat, but tough enough to take the oceans. It's a boat that I know I won't soon outgrow."

Timothy Gill



Getting both



At the end of his Mediterranean odyssey, Ulysses was given divine instructions to put his oars on his shoulder and walk inland until people no longer recognized what he was carrying. When he arrived at this place, he buried the oars and returned home to a loving family and lasting peace with his lifelong nemesis, the sea god Poseidon. Life should be so simple.

Oars today are not quite as magical as in old Greek myths. But today's misunderstandings of what makes a good oar, or even how to choose the right oar for your needs, are almost as staggering as Ulysses finding someone who didn't know what an oar was. Moreover, the amount of substandard rowing hardware and misinformation out there is far more frightening than Poseidon ever was during one of his periodic rampages.

Fortunately, owners of good old boats needn't concern themselves with a lot of rowing baloney. Oars for mid-sized sailboats are generally confined to the boat's tender. I say "generally" because I once lost my mind and decided to row my five-ton, 31-foot sloop back to Maine from Florida, using just one 12-foot sweep. More on that a little later. For now, suffice it to say that before you buy or make any

sort of rowing device, you must thoroughly understand its makeup.

Anatomy of an oar

An ordinary oar consists of the blade, the shaft, and the grip. Although that sounds simple enough, the variations on this theme are endless. Should the

blade be short and thick, long and thin, cupped, reinforced, or tapered? Then there's the shaft's shape and thickness, another source of constant discussion for some. Most prefer round but there is an ardent group of

square advocates, and an even smaller tribe of hexagon fanatics, too. The anti-round radicals contend the oar's durability is improved because you can orient the stronger peaks of the angles perpendicular to the blade (*See sketch at right*), making the oar more durable while in use.

In a sailboat's tender, I find most of these discussions somewhat beside the point. No one's trying to win races in a tender. Even in a boat that's rowed for pleasure, the small advantages these innovations offer are of little

consequence when you're moseying up some back creek or heading across the harbor to check out a handsome new arrival. So as far as I'm concerned, blades and shafts can be just about anything you like and still be quite serviceable.

An oar's grip, however, is

important and should be tailored to the individual most likely to spend the lion's share of time pulling for shore. From the outset, the grip should feel comfortable in your hand. Many grips

are cut way too thick, making it feel as though you're trying to grasp a cantaloupe rather than a proper handle. This is particularly true for women. Very few oar manufacturers take into account a woman's hand size, which is generally smaller than a man's. The trick then is to take matters into your own hands, figuratively and literally.

Over the years, I have refitted dozens of oar grips for people. To do this, a round-face spokeshave (about \$25) does the job quickly and efficiently. Lacking a spokeshave, an electric drill fitted with a grinding wheel and some 35-grit sandpaper can

by Ken Textor
illustrations by
Stan Terryll and
Ken Textor

Oars in the Water

also do the job reasonably well. The point is to make the grip comfortable for you. Most sailors find the elliptical grip more comfortable than the straight grip or the inverted taper (*See grip sketch on Page 30*). Don't be afraid to experiment a little, though. Taking off some now and maybe a little more later in the season is normal. And don't worry about the finish on the grip. There shouldn't be any finish on a grip in the first place. Painted or varnished oar grips will blister your hands while naked grips will barely leave your palms warm. If you feel you must put something on the grip to protect it until the oils from your hands seal the wood, use a small amount of linseed oil.

Which wood would work?

Of course, taking some wood off the oar's grip begs the question of which wood is best for an oar. Again, there are many opinions on this, but there are also some undeniable facts.

Ash is the traditional wood used in oars. Its use can be traced back to 5,000-year-old northern European cultures in which ash was believed to have the power to protect sailors from drowning. Not so coincidentally, ash is also strong, flexible, moderately light, and easily worked — more so than its

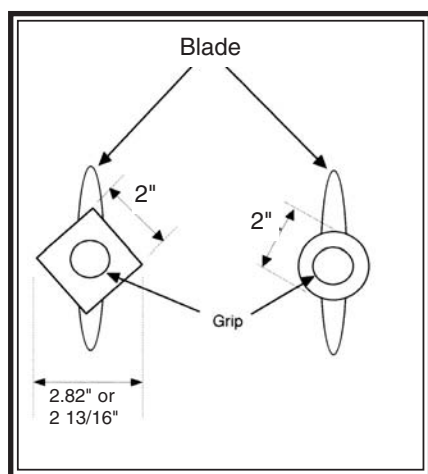
hardwood brethren like oak, elm, and maple. I prefer ash because I have been known to use an oar as a pry bar or shovel, and a hardwood oar survives this kind of treatment much better than today's softwoods.

For today's recreational boatowners,

though, spruce is the preferred wood for oars. But exactly which variety of this softwood you will get varies depending on your geographical location and the task ahead. As the name indicates, eastern spruce grows east of the Mississippi and is used by most oar

manufacturers in that region. Sitka spruce is the principal alternative and grows in the northwestern United States and Canada. It tends to be more expensive than eastern spruce but it does have more flexibility and strength. Thus Sitka spruce is favored for long oars (more than 8 feet) and eastern spruce is perfectly acceptable for short oars. And, as always, the closer you live to the source of manufacturing, the cheaper the cost.

Ash and spruce are not the only woods used in oars. Good arguments have been made for sassafras, maple, basswood, or Douglas fir. And the truth is that there are a dozen or more domestic wood species that will make perfectly serviceable oars. Include imported woods in the list of possibilities, and you've got nearly 30 species that will do the job. But if the sales clerk at your local chandlery can't tell you what kind of wood the oar is made out of, or is vague and indecisive on the subject, buy someplace else. Ditto for mail-order oars of an undefined or vaguely-defined species. Even though the wood species is not nearly as important as the manufacturing process and the attention paid to detail, it is useful to know the basic ingredients in your oars. It indicates



the limits of their uses and life expectancy. Species selection *and* proper manufacturing are what separates a truly good oar from the significant amount of junk out there today.

Sizing up a pair of oars

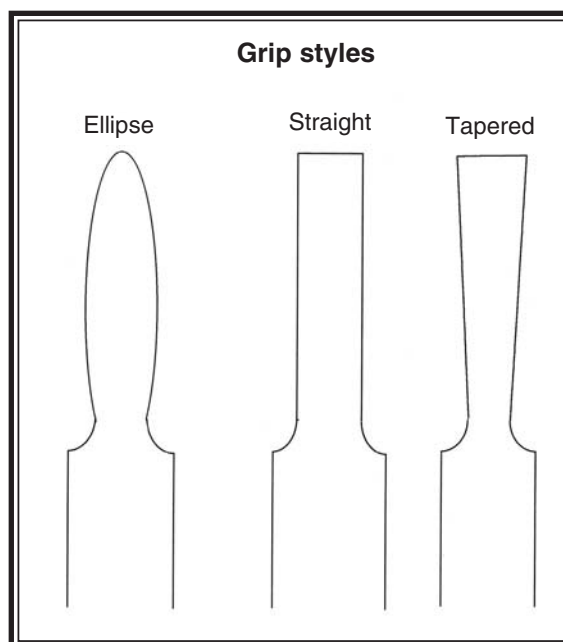
Laminated oars are often at the top of the heap of substandard oars today. This is too bad because properly laminated oars have many advantages over solid wood. In fact, many professional rowers prefer laminated oars and with good reasons: they often last longer, perform more efficiently, and even look better than solid oars. Even to environmentalists and oar manufacturers, the laminated oar is preferable because it makes good use of lumber that would otherwise be rejected in the oar-making industry.

Unfortunately, many mail-order distributors of ordinary oars only offer the least expensive laminated variety, quality be damned. Delamination of these oars usually occurs after a season or two, particularly in oars with laminated blades. Often these laminations are put together with substandard glue or pieces of wood in which the grain “runs out” of the oar’s centerline. In both laminated and natural oars, the grain should not run out of the shaft or blade. That’s asking for a break where it runs out. (*See sketch on Page 31.*) Indeed, aligning the grain amid the laminations is a science in itself. Suffice it to say, you can’t just slap a few pieces of wood together and cut a good, long-lasting oar out of it.

Once you find decent oars, laminated or otherwise, you must then decide what size oar you want. Ordinary oars range in size from 4 to 8 feet, increasing in size at 6-inch increments. So, given some nine sizes to choose from, manufacturers have come up with a formula for getting the correct length. It goes something like this: take one-half the beam of your boat (in inches) and multiply it times 25/7. Round off the answer to the nearest 6-inch increment, and you’ve got your oar length. For instance, a skiff with a 48-inch beam would work

out like this: $48 \div 2 = 24 \times 25/7 = 85.7$ inches or 7.1 feet. So buy the 7-foot oars, right?

Well, not quite. To begin with, this formula doesn’t take into consideration idiosyncrasies of both the boat and the rower. Some people like to row cross-handed while others prefer to keep their



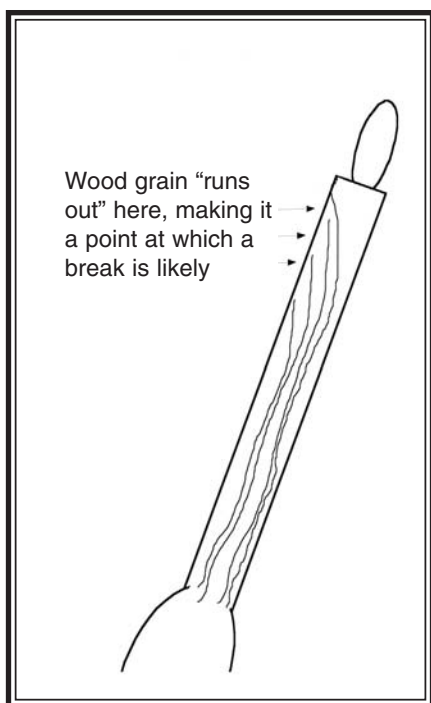
hands well apart. I prefer to keep my hands well separated and that shortens the length of oar I need. Cross-handed folks might need a longer oar. Moreover, my skiff and many tenders available on the market today have fairly low freeboard. The lower the freeboard, the more likely you are to “crab” or catch the blade on a wave on the return stroke. This is particularly true when rowing beam-to the wind. With a low freeboard boat, an even shorter oar is desirable. So while my skiff has a beam of 48 inches, I found a 6-foot, 3-inch oar is the ideal for me. Yes, I did take some off the blade tip and some off the grip too. And if my woodworking skills had forced me to settle for a stock oar, I would have opted for the 6-foot, 6-inch version. Oars a little longer than necessary are more comfortable to use than oars too short. I’ve found raising the blade up a little higher on the return stroke of a too-long oar is easier than trying to get some muscle into the pulling stroke of a short oar that forces you to raise your arms up to shoulder height.

Hardware and accessories

Proper oars are not the only consideration when attempting to make your rowing life easier. Oarlocks, chafing gear and grip accessories all must be considered too. Oarlocks (known in England as rowlocks) are notorious for becoming lost. Their suicidal tendency to jump overboard at inopportune moments is legendary and has been counteracted in several ingenious ways. My personal favorite is the Davis style oarlock. When not in use, you simply lift it up, tilt it slightly inboard and let it drop down in the slot. This holds the oarlock upside down in the oar socket and absolutely keeps it from going overboard. You can’t get a Davis oarlock out of the socket unless you unscrew the whole piece of hardware.

The four other oarlock styles each have at least one distinct drawback. The horned oarlock can only be held inboard by the use of a lightweight chain attached to the eye molded in its stem. The chain is invariably too light, eventually breaks, and overboard she goes. The round oarlock prevents you from removing the oar quickly and easily from the rowing station. This can lead to banged and marked up hulls, oars chipped on piers and so forth. The North River oarlock has this same problem and compounds the situation by preventing you from sliding the oar to a more suitable location on the shaft. The pin through the oar shaft also makes rowing uncomfortable for those of us who like to look around or move around in the course of a rowing trip. And finally, the patent swivels allow you to attach a heavier chain to the eye on the horn. But why do that if you can avoid a chain altogether with the Davis?

As for oarlock materials, I wouldn’t consider anything other than bronze, preferably the manganese variety. I can’t tell you how many zinc, aluminum, and cast brass oarlocks my friends and I have broken. Moreover, galvanized iron oarlocks invariably turn into rusting hunks of frustration and stainless steel often raises more questions than it answers. There are literally dozens of stainless steel formulae that can be used in boating



hardware, some of which are fine and many of which won't last very long at all. Unless you're a metallurgist, stick with bronze.

Oarlock chafe against the oar shaft is inevitable in all but the North River design. To prevent deterioration, the traditional chafing gear is a piece of thick leather sewn and/or nailed to the oar in the general vicinity of the point at which the oarlock and the oar shaft meet. This works well but can be expensive, regardless of whether you buy the chafing gear directly from a catalog or buy some leather scraps from a cobbler, upholsterer, saddler, or leathersmith. So some alternatives have developed over the years.

One of the best alternatives I've used recently is a short length of 1 1/2-inch flexible marine sanitation hose. Slit lengthwise, it wraps easily around the shaft of oars under eight feet in length. Tacked in place, they wear like iron, far outlasting the leathers I've used in the past. Although not exactly "finely fitted yacht quality," this approach costs about one-tenth of the traditional rig.


Grip options were discussed earlier. In general, I advise taking off more material in the

grip area, rather than adding material on. But for comfort's sake, you can add some padding. Rowing gloves and round grip pads are the two possibilities. I find gloves useful in winter conditions, but otherwise they're clumsy and hot. Grip pads increase the diameter of the grip area and make it feel awkward. Unless you plan to row miles at a time, grip and gloves seem unlikely to preserve all but the most delicate of hands.

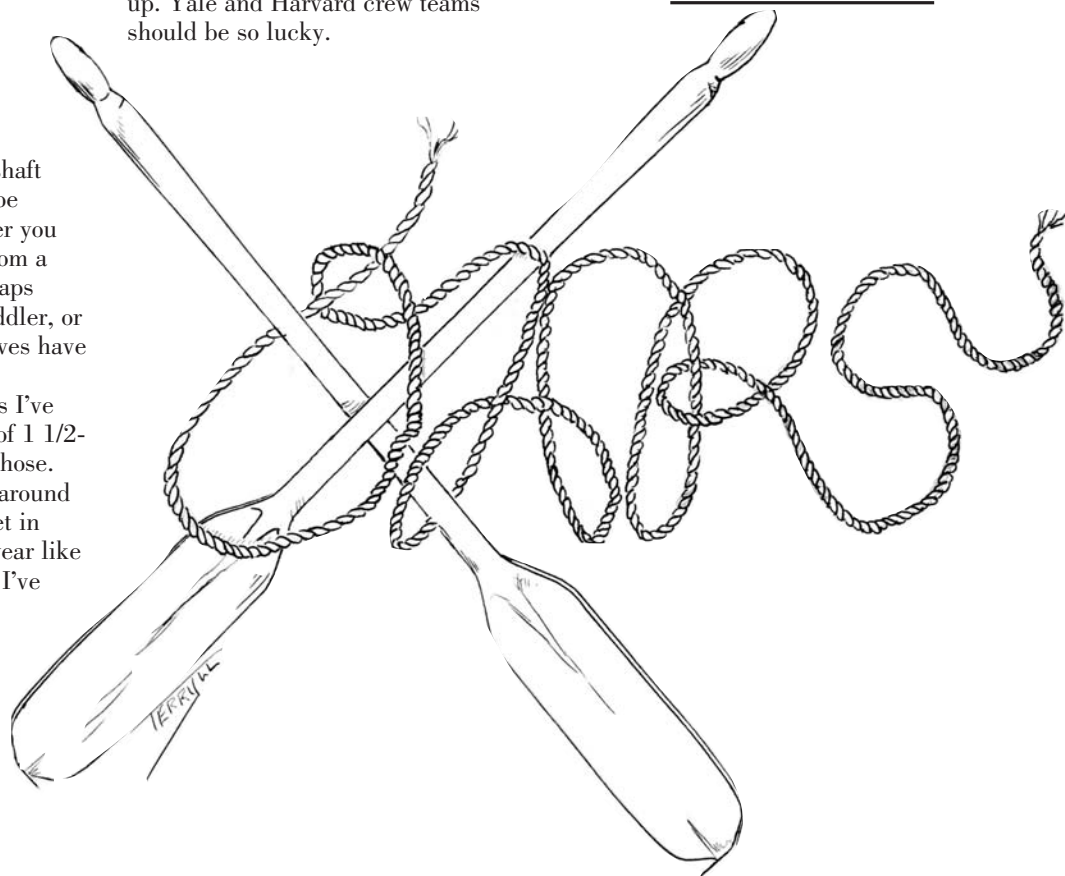
Paddles, sculls, and sweeps

Owners of good old boats sometimes step out of the simple oar universe and enter more esoteric, muscle-powered dimensions. This can be dangerous territory when, say, a few Ivy League crew enthusiasts sit down to hash out the advantages of various types of sculling sweeps. At great risk to my personal safety, I can report even these types of oars can be reduced to basics and work quite satisfactorily. I once whittled a 12-foot sweep out of Douglas fir and used it to help me take a five-ton, engineless sailboat from Florida to Maine. It was crude to say the least. But in calms it gave me steerageway, and that was sufficient until the wind came up. Yale and Harvard crew teams should be so lucky.

Canoe and kayak paddles also have advocates for various materials and forms. Again, the basics outlined above will get you there, no ifs, ands, or buts. However, for anyone who wants more than basic speed, comfort, and a source of conversation, please feel free to jump into the fray with the paddle "experts." In the opinion department, paddle experts can hold their own with sculling enthusiasts. I can only add here that any inexpensive hard plastic or aluminum tube paddles are a fool's investment. You might as well open up the nearest porthole and throw your money out.

Ultimately, rowing with a decent pair of oars is like owning, and cruising in, a good old boat: a small pleasure in which the difference between quiet pride and boisterous arrogance is fairly easily attained. Ulysses may have appeased the gods by burying his oars and giving up life at sea. But with rowing today, you need not put yourself through an oar-deal like that. 

With fond memories of
SMALL BOAT
JOURNAL



BE CAREFUL WHO YOU GET INTO A BOAT WITH

I've never had much luck fishing, but this hasn't deterred my everlasting hopefulness and the fantasies which accompany putting on the fisherman's hat. Despite the perils inherent in mixing hooks, lines and sinkers with mainsheets, jibsheet, and staysail sheets, I have mounted several memorable fishing expeditions under sail.

One drama searching for groundfish was cast off Pumpkin Ledge. Albert, the most passionate and accomplished fisherman known to me, and no doubt to fish, hooked onto a Big One and fought courageously for an

hour, only to discover our huge cod was a modest lobster trap. Later that day, lowering our aspirations, we switched to mackerel. We chased a school into Browns Cove and soon loaded up a mackerel rig with five very live ones. Unfortunately, as they came over the gunwale, the line snapped, and we parted company. Off they went, in perfect synchrony. "The Rockettes," Albert observed ruefully.

Another occasion, however, stands out from the rest. Not one, but two Big Ones were boated. Sort of. Co-owner Alan and I set out on a serious bluefish quest. We had heard they were feeding in Muscongus Bay, and were determined to get our share. After a quiet night at anchor near Burnt Island, we arose with the morning light, an incoming tide, and a light breeze. Optimistically trolling two squid-like lures on a 50-pound tackle, we rounded Old Woman Ledge. Suddenly Alan yelled, "I've got one!" And he did. As his pole doubled over

and he strained to hang on, I tried to luff up. At that instant, I got one! I immediately experienced a deficit of hands and feet, as I did my ineffectual best to attend to Alan, throw off the sheets, grab the helm, hang onto my fishing rod, reel in, and maintain contact with a now severely canted pitching deck.

Our quarry crisscrossed in *Sazerac's* wake and found and fouled one another several yards astern. The

sloop, without helmsman or crew, came about, jibed, luffed, ran, and went through its entire repertoire of points of sail as it tried to shake off

the two bluefish — and the two blue fishermen.

Somehow, we held onto the rods, the rods held onto the fish, and *Sazerac* held onto us all. With yet another hand, we brought the dinghy *Jedediah*, up hard against the transom, and together reeled the tangled, turbulent rat's nest of lures, lines, and fish alongside — and up and into the dinghy. Squinting through tears of laughter, we observed two thrashing handsome 20+-pound blues. We gasped for breath — all four of us. The excitement and the novelty of actually landing two real fish overcame the exhaustion, but not the absurdity of our predicament.

After congratulating ourselves on our distinguished skills as fishermen, we turned to the next task at hand: getting the hooks out of these toothy creatures and the lines untangled, so we could get back into that school.

Alan gave the command for me to go aboard *Jedediah* to tend the fish. I ordered him to do the same. After a few seconds of sustained paralysis, we

flipped for it. Alan lost. As I tried to keep the now oversailed vessel under control in an increasing wind and sea, he stepped from the afterdeck of *Sazerac* onto the dinghy below. A swell suddenly changed the relative positions of all three, and his foot came down on the rail of the dinghy. Over they went: dinghy, Alan, and two confused fish. The dinghy, port side under, swamped. Alan lurched amidships, somehow righting *Jedediah*. Both emerged from the capsize nearly full of water. Alan had joined the now-replenished bluefish in a very lively seawater bathtub.

The voracious fish now had Alan in their element, rather than he having them in his. The ridiculous spectacle of the situation was exceeded only by the look of alarm on Alan's face. The brown stain at the stern of his khakis gave evidence that the Comfort Factor had vanished as he tried to stand his ground, knee deep in brine, valiantly defending the bow of the dinghy — and his life — with an oar, in a pitching sea, against two slashing, ferocious, and very unhappy creatures wielding sharp, triple-ganged hooks. Murphy was clearly a seafaring man!

Suffice it to say, through several acts of heroism, and even more of luck, we won, and the blues lost. They were consumed with relish for dinner that night. But they did not die in vain, for they bequeathed to us **Cruising Rule 15:**

Be careful who you get into a boat with.

Reprinted from Roland's book, Cruising Rules. The book is available from Head Tide Press, Box 46, Belmont, MA 02178. Call 617-484-5205.

by Roland Barth
illustration by
Dave Chase



Brightwork and

Ken and Cathy McIntire didn't make a plan and follow it. On the contrary, they seem to be following a plan that has been pre-scripted. Once they were on their way, they recognized the plan and adopted it as their own.

Now that it has been revealed to them, the McIntires' grand scheme is to retire early, sell the house, move aboard a seakindly vessel, and follow the seasons along the Atlantic Seaboard. Even though they took all the right steps to make this possible, they didn't start out with these intentions. Early retirement seemed like an impossible dream for Ken, a college professor who has been teaching psychology as long as he can remember to wave upon wave of students as they descend upon the University of Wisconsin – Eau Claire.

Like retirement, the boat of their dreams seemed desirable, but out of reach. Ken and Cathy believed they were bound for many more years of weekend and vacation sailing. The purchase of their Baba 30, which they have named *Kahlua*, was the beginning of a new way of thinking. In an article he wrote for *Baba Salt*, the newsletter for the owners of Babas and their close relatives, Ken says:

It really began about the middle of November, after our previous boat had been lovingly covered, hugged, and put to sleep for the winter. It is the time of year when I'm getting over the depression of the end of the previous sailing season, but not yet heartened by thoughts of the beginning of the next one. One evening, as casually as one might expect with a discussion of the day's events, Cathy said something to the effect of "... Honey, why don't we get a new boat?"

We have done most of our sailing on a body of water called Lake Pepin, which is really just a long wide spot in

the Mississippi River. Our ambitions, however, are greater, and we had talked seriously about "doing the Great Lakes" when the last of the kids is off to college in about four years. As we are both planning on having time available during summer months for cruising for the foreseeable future, this seemed reasonable. We hadn't given a whole lot of thought or

discussion to either the details of the plan or what boat we might use to carry

out the plan. Our existing boat was inadequate if for no other reason than the fact that I developed severe back and neck aches after a weekend aboard. With several children to educate, my thinking about a new boat had been, admittedly, conservative. My guess is that it would take another married man to understand the power, the bliss, the ecstasy of those few words "... Honey, why don't we ..." Clearly, I am blessed with a wife who likes sailing as much as I do.

**by Karen Larson
and Ken McIntire**



bright smiles

*Ken and Cathy McIntire
had more conservative plans
for the future until their
Baba 30, Kahlua, came into
their lives. Now liveaboard
cruising has risen
to the top of the list*



*Still sailing on a wide
spot in the Mississippi
River at Lake Pepin for
one more season, Ken
and Cathy McIntire are
preparing Kahlua for a
new lifestyle which will
begin in the year
2000. They've lovingly
scrubbed, polished,
sanded, oiled,
varnished, and painted
every inch of the boat,
and it gleams.*



Even as he wrote those words in 1995 with a Baba of his own sitting at a dock on nearby Lake Pepin, Ken had no idea yet what plan was in store for him. In fact, he was still recovering from the shock of buying a boat he considered to be beyond their means. But there it was, and in his musings, Ken is eloquent:

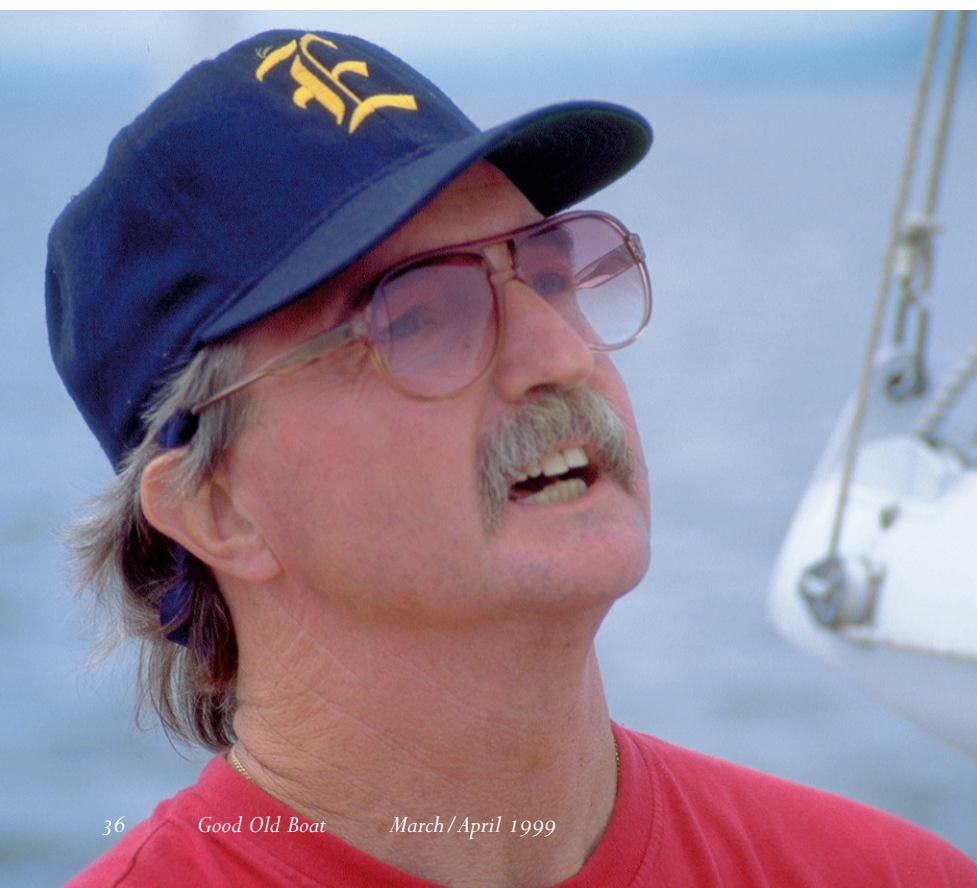
This is a tale of destiny and dreams set against a background of snow and improbability. Why would anyone want to purchase a lovely sailing vessel intended for offshore cruising and have it trucked halfway across the continent to the lands of snow and ice where the sailing season is shorter than the snowmobiling season?

My earliest recollection of anything related to the state of Wisconsin (other than the fact that my fourth-grade teacher, Mrs. Crumb, was from Wisconsin and knew a lot about dairy cows and cheese) was watching a football game on television between the Packers and Vikings, a very, very long time ago, in the comfort of my sunny, coddled Southern California teenage existence. The image on the screen showed snow falling heavily on the football stadium of a distant and mysterious land; I can remember feeling

pity for the players because it was obviously a very unpleasant place.

I clearly recall the television camera slowly panning across the stadium crowd. The natives of this unfamiliar place were a race totally alien to me. In a bizarre scene, the fans were huddled in the stands wearing what I later came to recognize as snowmobile suits, heavy winter hats, and full-face snowmobiling masks. Some of them had what appeared to be large wedges of cheese on their heads. Yet, despite these handicaps, they appeared to be laughing, cheering, and generally having a jovial time drinking beer and other "anti-freeze-treated" beverages. I deduced, cleverly, the necessity of anti-freeze in the drinks

since the temperature in the stadium was well below the freezing point of plain water. They seemed to be an amazing race of hearty and fun-loving, if not-too-bright, people. I could not understand how anyone could or would live in such an uncomfortable place.



Fast forward about half a lifetime. I'm driving across frozen rural highways in west-central Wisconsin in mid-winter, coming from my home of over 20 years in Eau Claire, (yes) Wisconsin. I'm going to Wabasha, Minn., a small town on the Mississippi River, about an hour away. For those who have seen the movie Grumpy Old Men, yes, Dorothy, there is a Wabasha (and a Slippery's Bar). As a point of reference before anyone gets a map, Eau Claire is about 1.5 hours east of Minneapolis, Minn., and Wabasha is about 1.5 hours southeast of Minneapolis. Minneapolis is west of the Hudson and east of the Colorado rivers.



I'm driving on a cold, clear morning through the great white north to meet the planned arrival of our recently purchased, but as yet unseen, Baba 30. Hajji Baba (as it was called at the time of purchase) is being trucked from its previous home on the Chesapeake Bay to a new home on the northern tundra.

So if you are sitting in North Carolina or southern California trying to imagine this scene, don't bother. It's beyond your experiences, and it must forever remain in the little compartment in your mind next to "Salvador Dali paintings." Unseen Baba, cold and snow, grumpy old men, Mississippi River, ice fishing — they just don't connect in any rational way.

But Ken was just learning the power of a dynamic woman, and Cathy is such a woman. The couple met and married later in life. Ken had been the sailor, starting in his 20s on an 11-foot lateen-rigged Styrofoam boat purchased from J.C. Penney. Just as he was ready for the next step, it presented itself. A friend invited him to crew in a Hobie 16 race. This gave him the thrill of hanging out on a trapeze and the adrenaline rush of racing. Hooked, he bought his own Hobie and started a 10-year racing adventure until his first

marriage disintegrated. During his single years, a regular racing crewmember for a two-person boat was hard to find. He sold the boat.

The next year he and Cathy were reacquainted. She is a school psychologist and had been

a student in one of his classes many years before. Like Ken, she was newly single. Cathy regrets not having a chance to crew on that Hobie, but if she had done so, the fates might not have been able to move ahead with their liveaboard plan for the McIntires. Cathy might still be happily hanging on the Hobie's trapeze and winning races with Ken. She has an adventuresome spirit, and Hobie racing might have been perfect for her.

Cathy's first sailing experience says much about the kind of sailor she would become. They went out with a friend in a Columbia 7.6. Cathy took the helm, not timidly but with a will, and spent the day with an iron hold on the tiller and her eye on the knotmeter seeing how fast she could make the boat go. Heeling did not frighten this first-time sailor, it thrilled her. One of the first things the newly forming couple did together, therefore, was to buy that Columbia 7.6. At 25 feet, it was meant to accommodate kids from both families on a score of grand sailing adventures. This it did. Unfortunately, it didn't accommodate Ken's 6-foot 2-inch frame very well and several of the kids grew to that size and beyond as well. The constant stooping was hard on Ken's back, and as the kids grew into their own weekend activities, Ken and Cathy considered the 33-foot Columbia 9.6 as a spacious alternative. They had sailed on a friend's Baba and loved it, but that boat was not in their price range. Ken writes:

At the time the decision was made to begin looking for a new boat, we both knew we wanted a Baba even though we hadn't discussed it and hadn't even begun looking. That unspoken decision had been made about six years earlier, when we first stepped aboard China Girl, a lovely Baba 30 relocated from Seattle to Lake Pepin by our friend, Paul Molinari (he recently sold her and moved up to a pristine Baba 35, Élan Sea).

Our decision to look for a Baba wasn't consciously made (we like to kid ourselves and think we are in control)

The racer in Ken keeps his eyes on the sail shape. Cathy does most of the work behind the wheel, while Ken is in constant motion trimming this and adjusting that.



until after we had done a lot of comparison shopping. Somehow “comparison shopping,” in the true K-Mart sense, seems appropriate to describe some of what we did at the time. As we sometimes together, sometimes alone, continued our search, we had come to the still unspoken — but mutual — conclusion that we wouldn’t be happy with anything but a Baba. Well . . . maybe a Cabo Rico in another life, but this time around our karma is a Baba.

Once our emotions convinced our intellects of the proper course of action and the intellects grudgingly admitted it to consciousness, Cathy and I began talking realistically and started looking seriously. After a few fits and false starts, working with brokers, some lackluster negotiations with not very encouraging results, we were beginning to get a little worried about the possibility that we might not find the “right for us” boat this year. One morning about 2 a.m., my wife (who was now a relentless, unstoppable boat-buying machine) was having difficulty sleeping so she left our bed, went to the guest room, and started reading the ads in the backs of sailing magazines, looking for a sign, any sign, that there was still hope and reason to be optimistic. What was initially a half-hearted attempt to get back to sleep turned into a relentless, driven quest — a quest for a sign that life is meaningful. And meaning, after all, is *The Right Boat*. And behold, the sign appeared as in a vision — in tiny print, very tiny print — and the sign was located on the Chesapeake. Cathy had found what appeared to be an available Baba we had missed and which was not yet in the multiple listings. Could fate be playing with us or was this truly our destiny?

The next morning at 7 a.m. (our time), after a night of half sleep, Cathy called John Nelson, the listing broker, to get the particulars. She then came in and woke me to tell me about the quest of the previous night and her vision. I had read about visions and even seen people purportedly having visions on television. But I never realized how wonderful it could be to be married to someone whose early morning, sleep-deprived vision would prove to be prophetic.

As part of an estate settlement, the 1982 Hajji Baba, former love of Sam Ornstein, was reluctantly being sold by the family. Pictures were sent (love at first sight; we love spruce and teak) and an equipment list and recent survey soon followed. A contingent offer was made and accepted and, two weeks after the pictures were received, the deal was closed thanks to the fax machine at Kinko’s, overnight mail services, some very efficient people, and destiny. Before Christmas, 1994 we took possession, albeit long distance possession, of the new partner in our relationship.

During that hectic two-week period, assets were liquidated, a bank loan approved, re-documentation initiated, a new survey completed, and trucking arrangements negotiated. There were no major delays, problems, or annoyances in the process. We both experienced a little anxiety because we hadn’t gone through this process before (and we weren’t quite sure what we were going to do with two boats), but we never had a major concern that things wouldn’t work out. After all, this love was in our stars, and there was no way to deny it.

Thus, in early January 1995, I found myself driving through the loneliness of rural Wisconsin up and over the frozen Mississippi River into Minnesota, down from the bridge overlooking Slippery’s Bar and the

fishing shanties and into the marina at Wabasha where Hajji Baba was waiting. So ends this story and begins another one.

The McIntires were so committed to finding a Baba, they bought Kahlua without seeing and sailing her in person. Ken writes about a few lessons learned in this process:

During this adventure we learned several things that we wish we had known before we started and made several mistakes we won’t make again. First, since we knew what we wanted and were generally familiar with Babas and since it was difficult for us to get away at that time of year, we had the surveyor make a thorough video of the boat, in and out of the water. It was an extra expense, but one we feel was worthwhile.

Originally the video was not going to replace a personal visit and sea trial. After considering everything, we decided, on the basis of the video, that a visit would be redundant. We found, when Hajji Baba arrived, that we had a pretty accurate picture of our new boat and that there were no major surprises. Clearly we were going to rely heavily on the surveyor, so it was important for us to do some homework before selecting one. Even though a surveyor is working for you, he or she may have an established working relationship with dealers in the area, which may not always work in your best interests.

Second, since our boat was in one part of the country and we were in another part, we needed someone to prepare the boat for shipment. The person preparing the boat is responsible for supervising the boatyard activities and doing the detail packing of equipment related to the purchase. This person may or may not be a boatyard



From the V-berth to the cabin, to the cockpit, Kahlua has been reborn. Ken designed the cockpit table to blend into its surroundings. Although it is not, it appears to be standard equipment.



employee, and the services can be very expensive. In our case I calculated that Cathy and I could have gone to North Carolina, stayed in a nice motel, supervised unstepping the mast and the boat transfer in the yard, packed the boat, etc., and still had a nice two-week vacation for what it cost us to have these simple jobs done for us. We were led to believe the process was complicated and for trained professionals only — “don’t try this at home, kids.” Nonsense. In Wisconsin and many northern areas we put our boats in and out of the water every year, working with the marina operators to do it. It isn’t any different on the Chesapeake.

Third, we learned about trucking companies. There are a lot of them and they vary in quality, efficiency, and price. We did a lot of calling before deciding on Boat Transport located in South Carolina. We found them to be pleasant, efficient, and competitively priced. At one extreme there are big, pricey companies with secretaries and official cost estimators with computer programs to do estimates that can be mailed to you. At the other end of the spectrum are mom-and-pop operations where some kid answers the phone. Estimates varied by about 30 percent, and some companies wouldn’t commit to their estimates. Some companies specialize in powerboats and when you ask about their equipment, they tell you about some Rube Goldberg contraption they can rig to haul your sailboat — thanks, I’ll get back to you. As with most things, you have to shop around to find the company that best suits your purposes.

There were few surprises in spite of buying a boat in an unusual way. *Kahlua* (the boat’s new name) was in need of more cosmetic work than either Ken or Cathy had expected: her floor was hidden behind a grimy accumulation resulting from years of neglect by a bachelor sailor, and all her bronze had turned green with time. Inside and out the teak, too, was in need of attention.

But Ken and Cathy had acquired the boat of their dreams, and they had immeasurable amounts of enthusiasm and elbow grease fueled by a growing love for their new boat. For a while the cabin floorboards adorned their dining room table at home, and the wood blocks hung drying from knobs on kitchen cabinets. Ken’s home workshop produced a cockpit table which fits its surroundings so well it can be mistaken for original equipment. Cathy sought a meticulous upholsterer to recover the cushions. They also applied a barrier coat and bottom paint. Acres of teak were lovingly sanded, rubbed, and coated with Cetol. Inside and outside the bronze was brought back to better-than-new status. And interior wood received oil sanding with Daly’s Seafin Teakoil, faithfully applied according to instructions in Rebecca Whittman’s book, *Brightwork*. Cathy may have gone a bit overboard here using sandpaper which progressed from 320 to 600, according to the book’s instructions, and then beyond to 1000 grit. “It rewards you,” Cathy says feeling the velvet smoothness of the bulkhead. She glows like the brass and woodwork she has restored.


Kahlua herself has rewarded the McIntires for their trouble. Ken calls her “confidence-inspiring, predictable, and seakindly.” Beautiful and polished from bow to stern, *Kahlua* has emerged from the grime. She is a princess who

has been touched by a magic wand.

Once the McIntires realized what a treasure they had in an offshore boat, Lake Pepin began to look mighty confining. They first discussed sailing the Great Lakes, but Cathy took the dreams to the next step when she made another one of those innocent “Honey . . .” suggestions. This one had to do with early retirement. Ken hadn’t considered that option, believing their monthly retirement income to be too small, but Cathy suggested selling the house and living aboard, and suddenly the concept became a possibility.

In the spring of 1998, the house was sold, quickly and at the height of the seller’s market. Ken and Cathy moved to a rented townhouse and began discarding the “stuff” accumulated in two lifetimes. This summer they will conclude their preparations, summer 2000 they will move *Kahlua* to Kentucky, and the following winter Ken and Cathy will mark the millennium with retirement and a one-way trip on the Mississippi River and out via the Tennessee-Tombigbee Waterway.

Of her suggestion to retire early, Cathy says, “I met Ken later in life. I’d already missed so much time with him. I’d trade stuff and a house for more time with this wonderful man anytime.”

They both agree that the work required to bring *Kahlua* back and to keep her teak and brass maintained is worth it. Ken says, “We love the ambiance, the warmth, the woodwork joinery. The longer we live with *Kahlua*, the more we’ve grown to love her.” 

One of the best resources for Baba owners is the owners’ group which produces the newsletter, Baba Salt. Contact Rick Emerson for more information: 215-855-1607; rick@ssg.com



I cannot pinpoint the exact moment Ken and I first conceived of The Dream as a real option for us. I believe it evolved as we shifted our focus in life from the myriad activities with our children and careers to the evolution of an “empty nest” life. It is only now, since The Dream has a clear shape and has intensified to an actual plan, that I am able to look back at the many obstacles, both real and imagined, which needed to be overcome before The Dream could even be seriously entertained . . . issues which are likely of concern to most parents and perhaps to women in particular. One might think financial issues would be a major concern, and so they are. Yet, I have come to see that financial concerns are actually less worrisome than deeper matters of the heart.

I spent most of my adult life raising three children and for many years defined myself in terms of their happiness and success. I gladly postponed a career in order to be home with my daughter and two sons, and I have never regretted that decision. But life moved forward: Divorce. Remarriage. Blended families.

Teenagers. Career. A whirlwind of activity, problems to solve, and emotions. In the midst of these competing priorities, I discovered the peace of sailing with my husband. Sailing restores balance to my life and re-focuses my vision on what is truly important and enduring.

Sailing has always been our special time as a couple. Though the children came with us when they were younger, their weekends with their father and later, the pull of teenage peers and activities left us alone more often than not on sailing days. Sailing gave us time to devote to our relationship, time which was in short supply with the concerns of five children between us. (Ken has two boys, now grown.) It was a time to heal from the separation pains when my children went to their father’s on weekends. Time to be like newlyweds, which we had never gotten to do with the immediate demands of a blended family. Time to develop The Dream.

by Cathy McIntire

When we bought a larger boat, we began to spend a good deal more time on the water. Slowly we evolved dual lives. There was the traditional one at home with families, friends, and work. And there was our sailing life together: a time to sail, read, play, work on the boat, and visit with a different group of friends: our marina friends.

In order to embrace The Dream, I have had to face the separation from my children in a more profound way than

if I simply sat at home while they went off to develop their own lives. As other parents have done, I find I must let go of the past and move on in spite of the deep ache in my heart from missing my children. Yet I am also delighted with the freedom Ken and I have to define a new life for the two of us. To simply be friends and lovers without the constant demands children inevitably bring. But now I have come to realize I prefer our sailing life to our traditional life without children . . . a shift in perspective I hadn’t anticipated. It just happened.

Dream becomes The Plan

Could we ever choose to make our sailing life more permanent? Could we honestly contemplate selling our home, as some have done, to live on a boat? We began to think seriously about it. Little by little, the financial picture was worked out. We realized that if we live conservatively, Ken's retirement and our savings should provide for us. But the real obstacles run deeper. Could I handle being so far removed from my children and family and friends? Would I be ready to end my career? If I don't define my success by my efforts at parenting or by my career as a school psychologist, how will I define it? Will we feel friendless and adrift? Will we lose that sense of community one has living in a neighborhood on land? How will I be able to make a contribution to society? Won't I feel guilty going away and not being readily available to my family?

I approached my children about The Dream a few years ago. To my surprise, they were delighted and impressed. They love the idea of visiting us in a warm, sunny vacation area. What's more, it seems our dream has freed them to pursue their own dreams and to explore the country in order to discover where they'd most like to settle without feeling obligated to stay nearby. Their reaction made me realize that whether or not I choose to live aboard a sailboat, I must face letting go of the children as they develop independent lives. However, choosing to become liveaboards would mean I have actively chosen to be less available to them, a choice contrary to my years of experience as a parent.

How much easier to sit at home and wait for the children to visit! I could reassure myself that I was still a good parent because I was always standing ready to assist them. Yet, is that what children really want or need? And if they truly needed me, wouldn't I be available to them anyway? Whose needs was I really concerned with? I

began to see that I need to let go of my role as parent. I need to trust the young adults I have raised and give them the opportunity and the permission to exercise their independence. Not only give permission, but show them by example that one should not be afraid to embrace new challenges in life, no matter one's age.


Of course, I want my bonds to my children and friends to remain strong. To maintain our close connection, we

through that process seem worthy goals. My success will be defined by the sailing skills I master to achieve this dream.

I am ready to trade my traditional life for time with my husband, traveling, learning, and exploring together. As the authors of *My Old Man and the Sea* put it, when you are sailing, "time stretches out all around you." Time. Such a treasure. Time to be with someone you love, doing what you love before the time has slipped away. It is a choice between material goods, a larger home, and "stuff" versus TIME. In our commercially obsessed society, the latter is a choice not often made.

So The Dream has now evolved and intensified into The Plan. We have sold our house and are reducing our inventory of "stuff." We plan to retire from our jobs in time for the start of the new millennium in January 2001. We have been working hard to outfit our Baba 30 for our new life with radar, refrigeration, wind

generator, watermaker, folding bicycles, and so on. Summer of '99 will be our last summer on Lake Pepin. In the summer of '00, we will move the boat south to Kentucky, where the water doesn't freeze, and we will fly down and move aboard the following January. Then, it's down and around Florida to the East Coast, where we plan to travel north for summers and south to the Caribbean for winters.

My bouts of anxiety are fewer and less severe now. I am eager and excited. I am becoming comfortable with the idea of embracing an open-ended adventure. (Isn't that what our lives really are anyway?) I believe I can give society a better version of myself and trust there will be opportunities daily to make a contribution to others, one person at a time. And I will be alert to special opportunities for helping society at large. Eight years ago I could never have imagined such a dream. Now, with the real obstacles resolved (the ones in my head), it is a serious, all-consuming plan. I can hardly wait to move aboard! 

"I am becoming comfortable with the idea of embracing an open-ended adventure. (Isn't that what our lives really are anyway?)"

have incorporated a computer, email, cellular phone, and video camera into The Dream. I have come to be quite confident we will remain close, no matter the miles between us, thanks to the wonderful technologies available. And that's the real issue, isn't it? One doesn't want to lose loved ones to go live aboard a boat. Once I got that issue worked out in my heart and mind, it was full steam ahead with liveaboard plans.

What about my career? I am willing to leave my career, but not to sit idly, sipping mint juleps in the sun. I have given much thought to my interests and the talents I would like to develop, but have lacked the time to pursue. Writing a book, studying, learning Spanish, improving my musical and artistic skills, not to mention improving my sailing skills. The liveaboard life holds much promise for self-development, rather than the continuing improvement of our material possessions. To travel and explore some of our planet, to experience other cultures and learn about ourselves

Expert opinion

Brewer reviews the

The Baba 30 is one in a series of husky, full-keel, double-ended, cruising yachts designed by my good friend Robert Perry and built in Taiwan. It always surprised me that Bob produced this line of popular full-keel designs after the spectacular success of his revolutionary Valiant 40. The fin-keel Valiant 40, as you may recall, is the boat that started cruising sailors thinking about “performance cruisers” after her successful single-handed transatlantic race back in the prehistoric ’70s. She proved that handsome double-enders with springy sheerlines don’t have to be slow boats to China, or from China for that matter.

In order to write these comments, I called Bob to ask why he had switched from the fin-keel lateral plane and moderate displacement/length ratio (256) of the 40 back to the Baba’s full keel and hefty D/L ratio of 364. Bob’s answer was, in effect, “Because that’s what the builder and the buyers wanted.” That answered my question because, as a designer, I know quite well that you can’t make a living unless you give the clients what they want. Bob said there was a strong market for bluewater cruisers at the time the 30 was conceived. Obviously, the idea of a seaworthy 30-foot double-ender grabbed a lot of imaginations, and that resulted in a lot of orders over the years.

by **Ted Brewer**

Some owners of Baba 30s and similar husky oceangoing craft may never get out of sight of land, but in the backs of their minds they know they can get up and go when the time comes and the wind beckons. At least one of the Baba 30s has circumnavigated the globe and many others have made long bluewater voyages. Given intelligent seamanship, the boat is quite capable of taking you anywhere you want to go on the world’s oceans and bringing you back.

So the full-keel Baba 30, with her very heavy displacement and modest sail area is not a “performance cruiser” by any stretch of the imagination, but she is a vessel capable of crossing oceans in safety and comfort. On the other hand, while many 30-foot “performance cruisers” are capable of crossing an ocean swiftly, and possibly safely, it’s unlikely that there will be much comfort aboard. It is the sudden scend (rise) of a light displacement boat in a seaway that upsets our human gyroscopes and leads to the sudden rise of one’s breakfast. With any given wave, the speed of motion depends on the weight of the boat and the amount of surface (the waterline area) that is acted upon.

Greater weight or lesser area means a slower motion and more comfort or at least less stomach upset. It also means a steadier working platform. In effect, to have ease of motion in a boat, you require heavy displacement and a moderate waterline area and, given these characteristics, the boat will scend more slowly as a sea passes beneath her. This becomes even more vital in a small boat, as you can imagine, so the

What all these numbers

Displacement/Length ratio
also written D/L ratio

$$\frac{\text{displacement}}{(.01 \times \text{LWL})^3}$$

The displacement length ratio is the displacement in long tons divided by (.01 x load water line length) raised to the third power. (*Raise only the term inside the brackets to the third power.*)

long ton = 2240 pounds
LWL = length of boat on its flotation lines in feet

Lower numbers generate smaller waves, thus having less wave-making resistance. (Friction resistance combines with wave-making resistance to make up total resistance.)

100 or less	ultra light
100 to 200	light
200 to 300	moderate (most cruising boats)
300 to 400	heavy
over 400	ultra heavy

Sail Area/Wetted Surface ratio

Area of sails divided by the area of the underwater hull, keel, and rudder. This ratio is difficult to obtain.


This ratio influences light-air performance more than sail area/displacement.

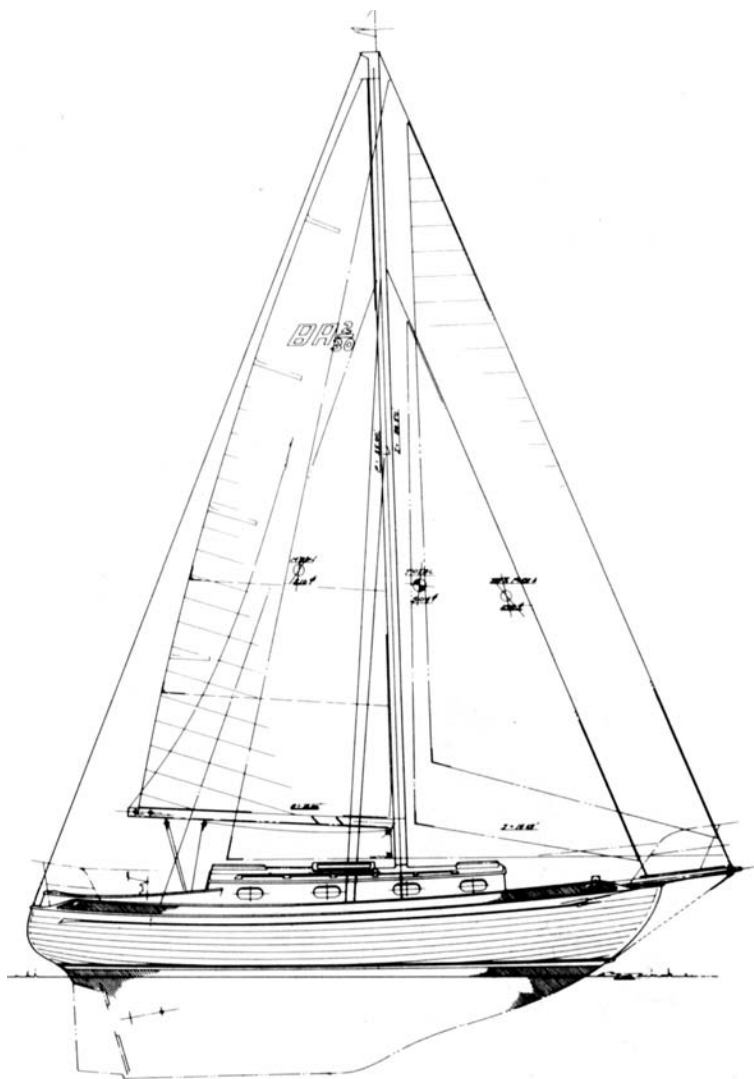
Baba 30

30's husky D/L ratio of 364 is what puts her into the "sensible small bluewater cruiser" class.

Given her hefty displacement, the Baba 30 has the relatively modest sail area/displacement ratio of 15.4 or thereabouts. Here I will point out that the famous Sparkman & Stephens design *Finisterre* had a D/L ratio of 405 and a SA/D ratio of only 14.5, and no one ever called her a slow boat. However, the SA/D ratio is misleading as far as light weather performance is concerned. In light air it is the sail area/wetted surface ratio that dictates performance, not the SA/D ratio. I do not have the wetted surface figures for the boats, but I expect the full-keel 30 will not show as well as the shoal-draft centerboard *Finisterre* in that regard.

Too, *Finisterre* was racing in an era of 150-percent genoa jibs and 180-percent spinnakers, and the Baba 30's light-weather performance would be improved substantially if she were outfitted with larger headsails. However, I'm sure most cruisers will be happy with a smaller, handier jib and will gladly accept the slower speeds that result or turn on the iron breeze in light air. I, for one, would!

No boat is perfect, and the 30 has some faults. The berths are on the short side, and there is too much teak for me to maintain. Regardless, the Baba 30 does just what its designer and builder intended it to do. It provides the sailor on a modest budget with a true oceangoing cruiser, one that draws admiring glances wherever it pokes its perky bowsprit. What more can you ask? 



mean for sailors

Sail Area/Displacement ratio

$$\frac{SA}{Dcf^{\frac{2}{3}}}$$

SA = sail area in square feet

Dcf= displacement in pounds is divided by 64 to obtain cubic feet.

$$Dcf^{\frac{2}{3}} = \text{displacement in cubic feet}^{\frac{2}{3}}$$

displacement in cubic feet

Seawater weighs 64 pounds per cubic foot.

below 15	lightly canvased boat (like a motor sailer)
15 to 16	offshore cruisers and heavy displacement boats
16 to 17	coastal cruisers
17 to 20	ocean racers and other high-performance boats
20 to ?	ultra high performance boats such as around-the-world racers

Note: Ted's writing a full article on this subject for a future issue of Good Old Boat magazine. Stay tuned. He and his wife, Betty, have just moved from Lyman, Wash., to British Columbia, a bit farther north. The new address for Brewer Designs is:

P.O. Box 48, Gabriola Island, BC, Canada, V0R 1X0; phone/fax 250-247-7318.

Model builder discovers

Tom Thomas finds art in sailboats. Good Old Boat subscribers can win a handbuilt model of their boat.

Tom Thomas is not a sailor — not yet — a fact that can be easily forgiven once you've met him. As an artist, he recognizes the beauty in sailboats, and his enthusiasm is so contagious you want to take him sailing. He's been promised rides by sailors all over the country. Once he's cashed in all those IOUs, it's a sure bet Tom will be scheming to buy his own sailboat. For now, he builds models of sailboats. One of these hand-crafted works of art will go to the winner of *Good Old Boat's* subscriber drawing to be held in mid-June. (See sidebar for more information.)

While his artistic training is quite extensive, Tom's talents have turned toward model building in recent years. Of these, "I especially like the sailboats," he says, "They're designed and built more in cooperation with the water and the forces of nature than a powerboat. The earlier sailing yachts were works of art in themselves. Men sailed for thousands of years before motors were even invented. So sailboats are a link to a very interesting part of history. Sailing is a

cooperation of man, wind, water, and sail in combinations that are sometimes tipped in favor of the man and sometimes in favor of the water and the wind. The thing that brings them together, though, is the boat itself."

To understand what moves a man who understands sailing so well without having been on the water is to paint "a portrait of the artist as a young man." Tom was the kid next door who gathered up empty fruit crates from the corner market, dragged them home, and used the lumber and nails to create pirate ships, airplanes, and go-karts. He made balsa wood models of planes depicted in flying magazines. He took oil painting and watercolor lessons and went on to earn a degree in art.

"At the time, I hadn't really focused on art as a way of making a living but used it primarily for my own personal enjoyment. That's how I expressed myself when I was troubled or feeling good, or when I just needed to do something for myself," he says.

Tom worked for the Missouri Pacific Railroad during the summers between college terms, and the railroad was quick to hire him full time after he finished college. Art became a hobby . . . one that didn't surface often until he hit a stressful period in his life when a job transfer caused a family relocation. As Tom recalls, "I hadn't been doing any artwork for some time, and then all of a sudden, I couldn't do enough of

it. When my wife, Lori, asked me to make her a birdhouse, that was the stimulus that inspired the model making. Of course, if you are going to do anything, you might as well go overboard, so I built a two-story colonial birdhouse. It was pretty rough, but I saw a lot of possibility. Next I built a two-story Victorian with a wrap-around porch, lap siding, the works. I made the windows from miniature lumber and hand-chipped the cedar shakes. Needless to say, it turned out a little better than the first one."

Tom's neighbor liked the concept and hired him to build a model of his home for his wife for Christmas. Tom

realized that he might unintentionally be creating a small business. "A person's home, grandmother's house, barn, or church is a very personal place which invokes personal memories," Tom says. "I enjoy being able to capture those memories in a three-dimensional art form. Rather than creating a work and hoping that someone could relate to it, I was utilizing the input of the client and creating very personalized works which could be passed down through the family as treasures. The fact that they are marketable as a very unique art form is important, but secondary to the building process. I would build them whether I was selling them or not."

Creating models of buildings led to an interest in developing models of boats. "I've always been interested in boats of all kinds. My first model was rough, but I thought I had the right idea. I just needed more information. I started going to the library and reading everything I could find on boat design, boat history, early designs, and so on. I then started selecting pictures of boats out of the books and replicating them as models. It was basically the same process as building the architectural

by Karen Larson

Jeanine and Roland Jackson's model of their Catalina 34, True Love. Tom is pictured building True Love on Page 46. On the right-hand page is the Trammells' Dickerson 37, Calypso.



sailboats

models — as far as reproducing curves in a three-dimensional model goes — only with more curves.”

Meanwhile, Tom's hobby was becoming a nifty little part-time business. One thing seemed to lead to another. A model of a Victorian home for one client drew the attention of *Victoria Magazine* in New York City. The feature editor asked Tom if they could photograph the model for their Christmas issue. Not too long after that the *Kansas City Star* magazine featured Tom, and the article which resulted drew the attention of Martha Trammell.

Martha and Lee Trammell had been sailing through life together for 25 years when she chose to celebrate their anniversary by surprising her husband with a model of their Dickerson 37, *Calypso*. More than 20 years ago friends of theirs moved to the Chesapeake and invited them to go sailing. Martha says, “It was love at first sail for both of us.” They raised two sons while moving through a fleet of sailboats beginning with a Renken 18, and moving to a Cal 24 and Beneteau 285 before arriving at the Dickerson 37.

The article in the *Kansas City Star* appeared about the time she decided she was interested in having a model built for the upcoming anniversary. “As soon as I read the article, I contacted Tom,” Martha says. “The Dickerson 37 is a lovely boat and is featured in the *World's Greatest Sailboats* book. We spend many enjoyable hours sailing ours and when we are not on the boat, we have the model to remind us of when we are!” The 1-inch per foot scale model is on display in the family room, where Martha says, “we seem to spend a great deal of time.”


A hand-crafted sailboat requires hours of detail work, so the price of one of these models gives one pause. Martha said, however, that she didn't experience an instant of hesitation about the project once she'd met Tom and seen his work. Since this was his first sailboat commission, Tom says, “I was a little intimidated by the project



Paid subscribers can win a custom model of their boat

As we constantly scour the earth in search of good old boaters who have not yet heard about our magazine, we were interested when Tom Thomas contacted us with an opportunity. He was willing to build a boat model for a lucky subscriber, he said, if we'd find the appropriate recipient. There's no fairer way to distribute a prize of this proportion than to draw names (in this case it will be subscriber numbers) out of a hat. Voilà! Our subscriber contest was born.

But what if the winning subscriber doesn't have a boat? Or the boat he (or she) has currently is not his true dreamboat? Or his sailing passion was created years ago on one special boat he'd like to recreate for his memory? We've covered that. The winner can select any production cruising sailboat he'd like to have commissioned as a model. The award can also be created as a surprise present for another sailor, say for the parents who introduced him to sailing. We're excluding models of full-rigged clippers. The model has to be a good old cruising sailboat.

Anyone who is a *Good Old Boat* paid subscriber in mid-June will be eligible for the prize drawing. Three winners will be chosen. The first subscriber drawn will be able to commission the boat model of his (or her) choice. We'll profile that winner in the magazine and tell what boat was selected and why. The second and third winners will receive personalized, custom-made duffel bags. (More on these in the next issue of *Good Old Boat*, but suffice it to say that they are the best designed and highest quality bags we know of.) 



In Tom's own words . . .

Having read all of the Horatio Hornblower books as a kid, while I'm working on a model I can imagine the hull slicing through the water, the spray kicking up in my face, and the creak and groan of taut lines as nature struggles to equalize the forces driving the boat.

I was building a model of a three-masted schooner late one night. It was in the spring, and the fog outside was very thick. My son and I went out on the patio and were talking about the fog. We played a game in which we tried to imagine that we were on the wharf at Portsmouth in the year 1810. We tried to imagine all the sounds we could hear through the fog . . . the rattle of carriage wheels on cobblestones and the clatter of horses' hooves . . . the massive hulks of the anchored men-of-war sloshing in the tide . . . the creaks and clanks of ropes and tackle as they rocked gently back and forth in the current . . . the muted voices of the sailors in the guard boats and the creak of oars as they pulled around the giant ships . . . the sounds of the lighters and their crews as they loaded the supplies for extended voyages into the dark holds of the anchored ships . . .

Those are the types of things I think about when I'm working on a boat model. By looking at a picture and then having it come out the ends of my fingers as a fully detailed boat model, I think I impart some of my personality and feeling into it and, by the same token, absorb some of the boat's spirit in return. I consider each boat model as much a work of art as a painting or sculpture because of the feeling I personally put into it and get out of it.

Tom Thomas

Editor's note: If you can't stand the suspense of the drawing and simply must have a custom-built boat model right away, Tom's address is:

Spotwood Studio
P.O. Box 544
Kearney, MO 64060
816-628-4336
Spotwood@qni.com

at first, but once I got started I enjoyed it immensely."


Martha adds, "Tom is quite humble about his work. I have an art background, and I can say with confidence that he is very talented."

Like Martha, Jeanine Jackson surprised her husband, Roland, with a model of *True Love*, their Catalina 34. Because the boat was commissioned just after their honeymoon, they thought the name was appropriate. The 1/3-inch per foot scale model of *True Love* is proudly displayed in Roland's office. When asked whether she thinks of the model as a family heirloom, Jeanine says without hesitation, "Absolutely. That is, if my husband will ever part with it!"

One more happy boater with a model in his office is Jack Okerstrom, an orthodontist who was surprised by his staff last year with a 1/2-inch per foot scale model of his Gulf Star 36 Trawler, *Das Boot*, as a combination Christmas and 50th birthday present. His office manager, Patty Alley, says the staff members gathered their dollars together and ordered the model after visiting Tom's website <<http://www.qni.com/~spotwood>> but without seeing his work. They had a few doubts during the ensuing weeks while waiting for delivery. But the boat's arrival was very exciting for the staff and recipient. "It turned out to be wonderful," Patty says. "It's on Dr. Okerstrom's desk and serves as a great conversation piece. Patients get to know a bit more about him this way."

Those who have had models built are excited by the *Good Old Boat* subscriber contest which will place a model on a shelf, desk, or table of one lucky good old boater. As Jeanine says, "I couldn't imagine a greater award!"

Tom's philosophy is, as he says, "to create something that is very special for the owner. I build my models entirely by hand. In today's modern world, there are too many mass-produced items available. I want to build something that will last. As our lives become more and more technical, and machinery and electronics become more prevalent in our society, I think it is important to stay in touch with our past and our history. When you look at what a person like Nathaniel Herreshoff had to work with when he was designing and building boats, you have to realize that there is a certain amount of beauty and consistency in the simpler way of doing things. My goal is to capture that in my models."

The recipients of these special works of art often invite Tom to come along on a boat ride. Before long we sailors will have made him one of us. It's just a matter of time. Perhaps the real winner will be the lucky sailor who is able to introduce Tom to the passion we call sailing. 

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Backordered copies of *Good Old Boat* are available for \$7 within the U.S. Use the coupon below to order. If you're reading someone else's magazine and want to subscribe, you can use a copy of the coupon for that also. If you prefer to order a sample on the Internet, we've made that easy. (But checks have to come through the good old U.S. Post.) Check out our website: <<http://www.goodoldboat.com>>. Or just fax (612-420-8921) or email (jerry@goodoldboat.com) us with an address and a request for a magazine. When we get the request, we'll slip one in the mail to you. Send us a check, and you become part of our community of good old boat sailors. It's that easy. We're still too small to accept credit cards, but we won't turn down anyone's check. Even foreign currency is good with us!

Premier Issue (June/July 1998)

Technical articles: Thru-hulls and marine metals; Atomic 4; Rubrail revival

Feature boat: Cape Dory 30

First list of sailboat associations and contacts

September/October 1998

Technical articles: Wet exhaust and other marine exhausts; What to look for when buying an older boat;

Sailbrokers

Feature boat: Ericson 35

Features: Vendor feature on Sailrite; Onboard communication; Nautical photographer; Sailing on the 'Net

History: Birth of the Valiant

November/December 1998

Technical articles: Deck delamination; Vang/preventer; Is fiberglass forever?

Feature boat: Niagara 35

Features: Ted Brewer profile; Buying, financing, and insuring good old boats; Cruising Rule Number 12; Roller furling vs. bags on deck; Sailors' resources

January/February 1999

Technical articles: Repair of fuel, waste, and water tanks

Feature boat: Blackwatch 19

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GOOD OLD BOAT

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Hooking . . . for a

The wind had shifted overnight. A sea was starting to run into the anchorage from the exposed direction, so we decided to leave. We finished the breakfast dishes and pulled in the “off-duty hook.” Karen motored up to the windward hook. I snubbed the rode as she went over it. It broke out; I pulled it in and stowed both anchors and rodes. I was still humming cheerfully to myself when I closed the starboard cockpit locker over the storm anchor and sat down to finish my tea.

A lot had changed since we started hooking with “little” *Mystic*. In the beginning I didn’t hum much, and my tea would have gotten cold before I got the anchors stowed.

It took me a while to get interested in anchoring. The first serious anchors in my life weighed 22 tons. A single link of the all-chain rode was more than a strapping young sailor could lift. I honestly never doubted that such gear would “take the ground” and hold a 22,000-ton cruiser securely.

I still was not worrying much about anchors years later when I raced my Flying Scot. Class rules said we had to carry an anchor, so I did — the smallest one I could get away with. There was no mention of chain in the rules, so I didn’t carry chain. It would have added weight, and I never once considered the possibility that I would actually anchor that little daysailer anyway. She was dry sailed from her lift and only on race days.

Then we bought *Mystic*, maybe 10,000 pounds in cruising trim. Suddenly I had a serious interest in anchoring. We had enough anchoring adventures during the first season to learn the questions. It took several more seasons of experimenting to learn some of the answers.

Things change

In among islands and against the shore where most anchoring is done, the wind direction may vary during the course of an evening. By sundown,

when we most often anchor, the breeze is frequently off the land — not necessarily the prevailing wind direction of a few hours earlier nor the direction of the predicted shift.

Anchors are normally set to the existing wind at the moment of anchoring. It’s the easiest thing to do. At least the boat will tend properly to her anchor for a while, but often the wind will be from another direction by morning.

If there is a tidal current involved, the odds are it will have changed direction by morning. Some sailors rely on their anchor to reset itself when it is pulled out of the bottom and dragged in a new direction.

Most of the time an anchor will do that, but not always. Slash,

debris, rocks, weeds, and even heavy clay and mud can prevent an anchor from resetting. We figure our odds of a reset are about as good as our odds of getting a set in the first place: good, but not good enough.

In those early days, we were never blown ashore nor out to sea because of an anchor that failed to reset. We learned that cold fronts and thunderstorms always have a wind shift associated with them. We had our anchor drag because of these shifts, but we were always awake and able to respond quickly. We reasoned that Neptune was trying to tell us something, and if we didn’t heed the message delivered in daylight, we were sure to get one in the wee small hours. We started experimenting with alternatives, looking for a better way.

Use two anchors, mon

The anchoring method that follows is a variation of Bahamian mooring, which may be defined simply as using two anchors off the bow. The beauty of this method is that as the boat swings with wind and tide, she hangs from one anchor, then both, and then finally the other anchor in tending through a 180-degree swing. Any wind direction can

be accommodated. As with so many aspects of sailing, it is the details that determine the success or failure of this method.

The simple case

Most of the time it is this simple: Drop the first anchor, fall back downwind about seven times the depth, and set it. Drop the second anchor off the stern. Pull in about half of the first rode and set the second anchor by hand pulling from the bow. Put equal lengths of rode out for both anchors. Use a rode length roughly equal to the distance between the two anchors in the bottom. (See illustration on Page 50.)

We normally anchor in 14 to 16 feet, and let out 100 feet of rode for each anchor. That gives us roughly a 7:1 scope, which works well for the kind of anchors we use. We want our anchors about 100 feet apart on the bottom. By dropping off the stern and setting from the bow, we give the second anchor some distance to set and some added scope. After the first anchor sets and the engine stops pulling astern, the boat will spring forward on the elasticity of the rode. To get it to the bottom before the boat moves forward, drop the second anchor just as the prop stops. Then, to keep the rodes out of the prop, it is better to pull the boat forward without the engine. If the engine must be used to move forward, control both lines to keep them out of the prop.

Note: both anchors are deployed without using the dinghy. Nothing in this method requires rowing an anchor out to deploy it.

When simple’s not enough

In more challenging situations, it is good to understand how your boat can move when Bahamian moored; it is also important to understand the direction and magnitude of the loads on the anchor system.

You can see in the illustration on Page 52 that in a single anchor mooring the boat is free to move within a circle with a radius roughly equal to the

by Jerry Powlas



length of rode that is out (ignoring scope and three-dimensional considerations for simplicity).

With a single anchor, it is necessary to make sure that, if your boat swings toward shore, you will have enough depth. This requires anchoring farther off to allow for the swing. Even so, there is always some guesswork in making this allowance, and sometimes it would be nice to go closer to shore.

Closer to the shore

Note in the illustration on Page 52 that with a Bahamian moor, the boat is only free to move within the common zone of the intersection of the two circles. With this arrangement, when you drop the first anchor up against the windward shore, you are as close to shore as you are going to get. The anchor to leeward will not allow you to get any closer. Knowing this allows you the option of going in closer to shore when there is an advantage to doing so. Considering the example above of anchoring in 14 to 16 feet of water and letting out 100 feet of rode, if you choose, you could anchor in 7 feet of water and let out 50 feet of rode (vessel draft and tide permitting).

Anchoring in closer quarters

Because she is constrained within the common zone of the intersection of the two circles, your boat will not swing over as much area, so you can anchor in closer quarters. Using the example above, instead of the area within a 200-foot diameter circle, your boat will be restricted to a bloated diamond shape that is 100 feet across the short dimension and 173 feet across the long dimension. This is substantially less than half the area of the alternative circle. By knowing that the longest dimension of the diamond is perpendicular to the two anchors, you can lay them to best advantage in close quarters.

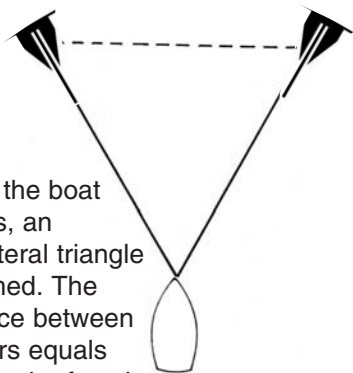
Restrict your swing more

There are two more ways you can reduce the area of your swing. Remember you have the option of going in closer with a Bahamian moor. If you were to anchor in 7 feet and let out 50 feet of rode, you would swing inside of a diamond only 50 by 87 feet. Have a care for the tide and the regularity of the bottom, if you cut it that close.

You can also anchor, as in the first example, initially letting out 100 feet of rode so the anchors are about 100 feet apart in the bottom, and then you can

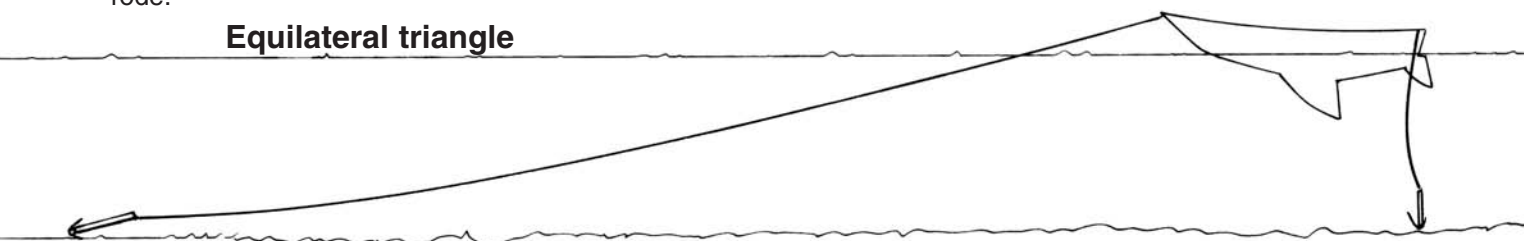
shorten both rodes to something less than 100 feet. (See illustration on Page 52.) This works well enough but has drawbacks. If you shorten both rodes to 75 feet, you will only have 5:1 scope. If you shorten the rodes to 58 feet you will be at 4:1. Depending on the kind of anchors you have, this may or may not be beyond their limit. In our experience with our Fortress and Viking (both aluminum fluke-style) anchors, 7:1 is conservative, 5:1 is workable, and 4:1 might not be such a good idea. Always go with "conservative" when you can.

There are some obvious variations of this method that are not recommended. One obvious way to restrict the swing of your boat is to put in two anchors widely spaced and then pull in all the slack so the boat is fastened to a straight line made up of the two rodes. **Don't do that.** There will be no problem as long as the boat is pulling along the line between the two anchors, directly on one anchor or the other. However, if the boat were to pull in a direction perpendicular to the line between the two anchors, it would have **infinite mechanical advantage** until the lines stretched, the anchors dragged, or something broke.



When the boat swings, an equilateral triangle is formed. The distance between anchors equals the length of each rode.

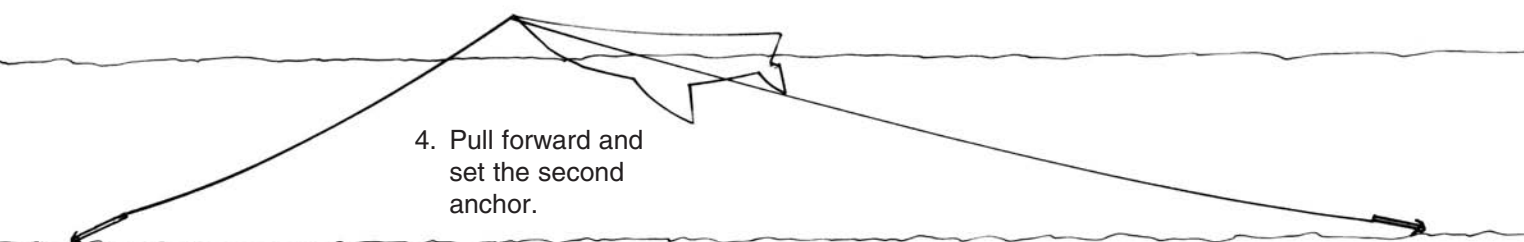
Equilateral triangle



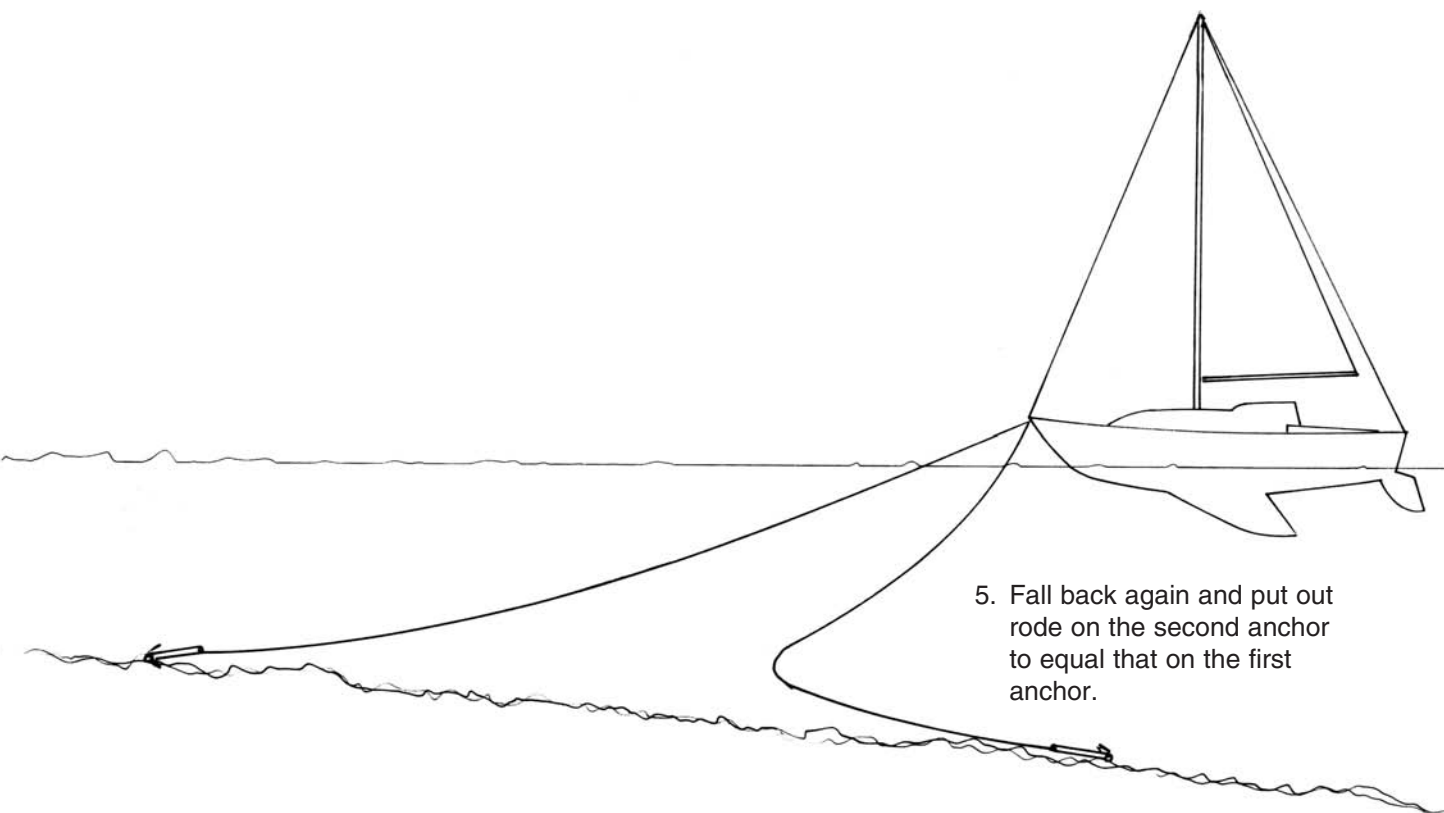
1. Drop the first anchor.

2. Fall back downwind.

3. Drop the second anchor off the stern and lead it to the bow.



4. Pull forward and set the second anchor.



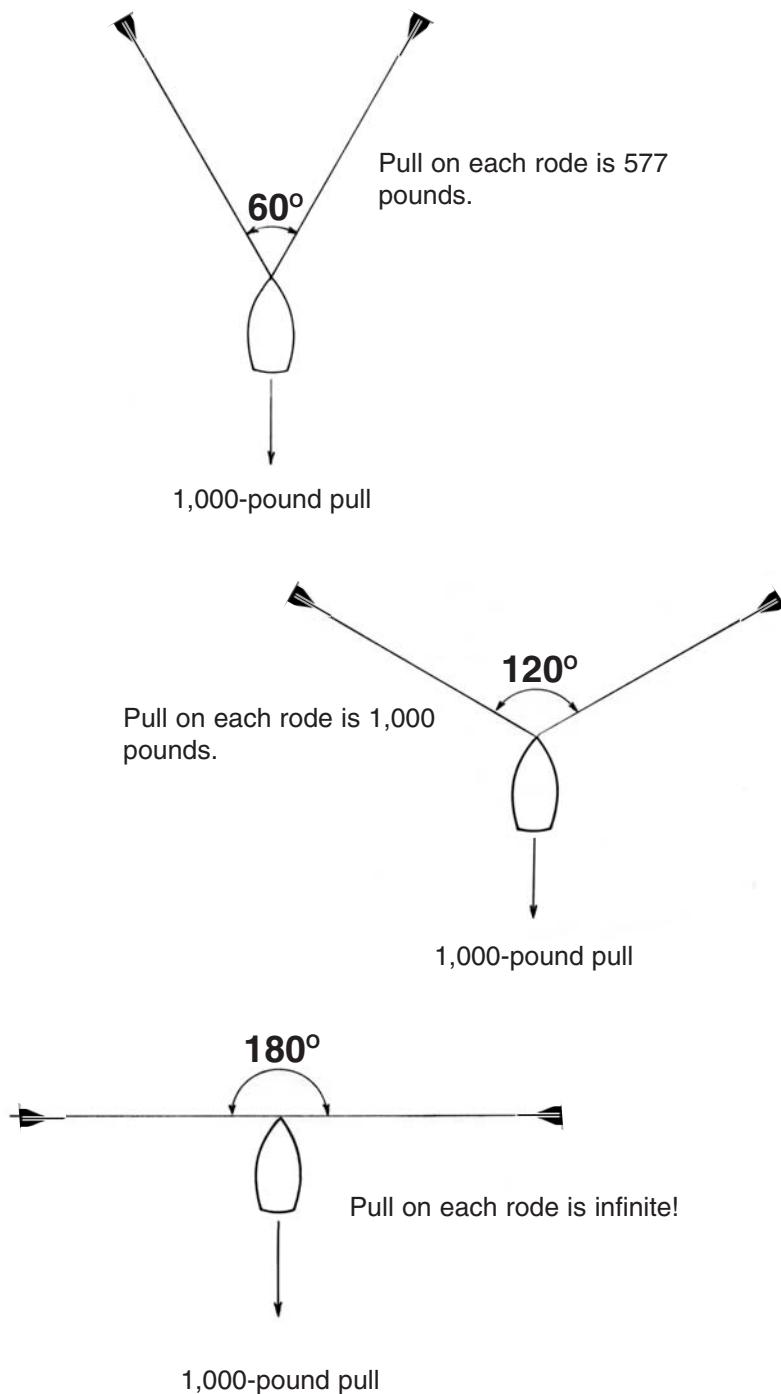
5. Fall back again and put out rode on the second anchor to equal that on the first anchor.

To give you a sense of how this works, look at the illustration at right. With the anchors 100 feet apart, 100 feet of rode let out to each anchor, and the boat pulling perpendicular to the axis through the anchors, there is an equilateral triangle formed. Each leg is 100 feet. With the boat pulling 1,000 pounds force on the combined system, the pull on each anchor rode is 577 pounds, or slightly more than half. If you haul in enough of each rode to make the angle between the two rodes go from 60 degrees — as in the first case — to 120 degrees, the pull on each rode will be 1,000 pounds when the boat is pulling 1,000 pounds on the combined system. This may seem like cheating, but it gets worse. If you could make the angle between rodes 150 degrees, the pull on each rode will be 1,932 pounds. And as we said, if you could pull all the rode in to make the angle between the rodes 180 degrees, the pull on each rode would be infinite. That won't last long in reality, because something will give, and the angle will increase. We recommend that you use the equilateral triangle layout where possible and always limit the angle between rodes to less than 120 degrees. Within these limits, the pull on any rode is never larger than the total pull from the boat.

Another variation we do not recommend is to let out more rode than the distance between the anchors, for example, letting out 200 feet of rode when the anchors are set 100 feet apart. This will increase your scope, but it will also allow the rode from the “loaded” anchor to lay over, and possibly foul, the unloaded anchor. By limiting the individual rode lengths to the distance between the anchors, the rodes never quite lay over and foul the anchors. Even with the equilateral triangle arrangement we prefer, a strong bottom current might be able to wash an anchor's own rode over it and so foul it. In areas with very strong currents, pulling in some rode might be helpful to prevent this.

A few small details

We usually anchor in the lee of the land. We put in our smaller anchor first. The larger anchor is set to seaward. It has more chain with it, and is more likely to set when pulled by hand. A blow from the direction of



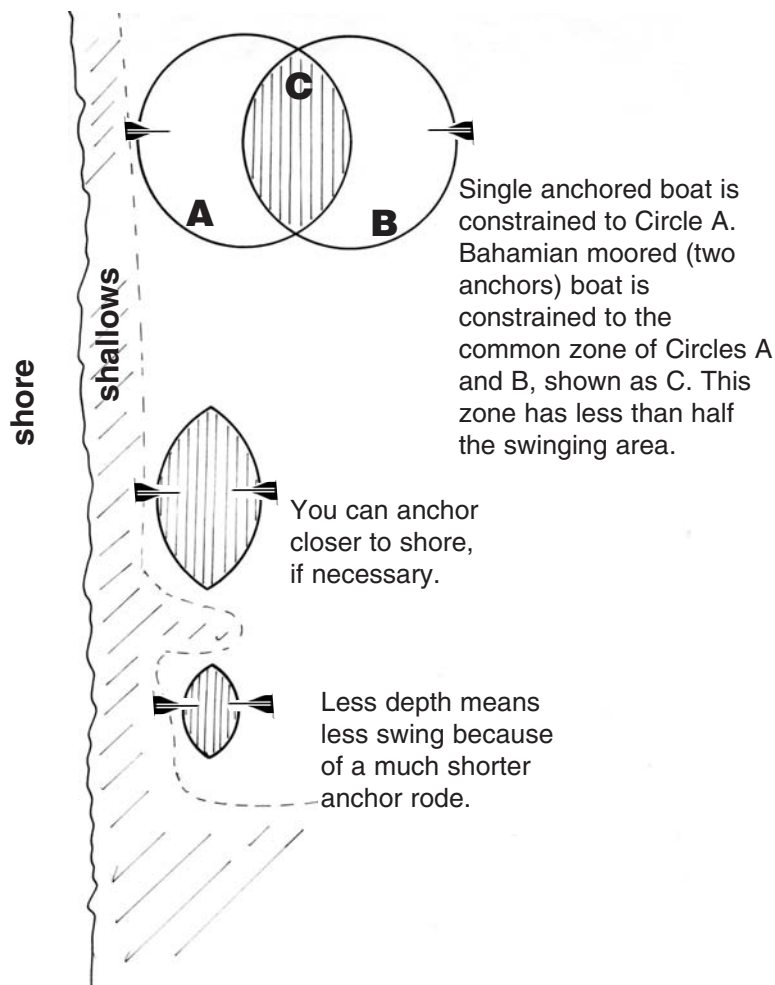
Contact information for carabiners:

You can get the carabiners we use (Omega Pacific 7/16 inch steel style 3 modified D) from:

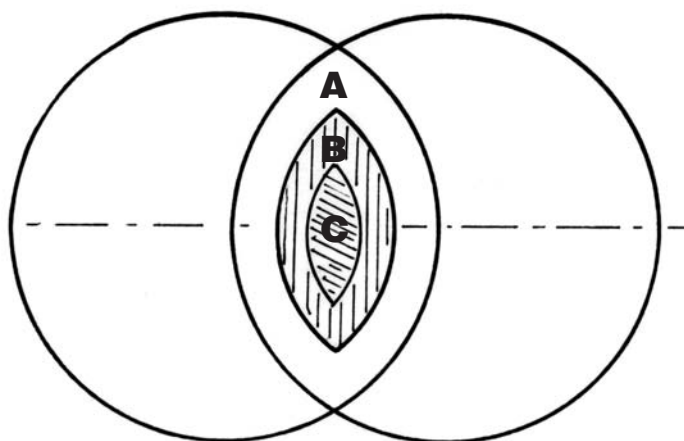
Climb High
60 Northside Drive
Shelburne, VT 05482
802-985-5056

They cost about \$14. Be sure to use carabiners that **lock** closed.

A boat's swing with one and with two anchors



Anchors set 100 feet apart with 100, 75, and 57 feet of rode



- A** 100-ft rode –
Swing is 173 x 100 ft
- B** 75-ft rode –
Swing is 112 x 50 ft
- C** 57-ft rode –
Swing is 55 x 14 ft
(practical limit)

shore puts less of a load on the anchors because the shore blunts the effect of the wind, and there are no waves. Our smaller anchor handles that direction. A blow from seaward puts more load on the system, having more wind and waves, so our larger (storm) anchor is set in that direction. Set the bigger anchor against the bigger load.

If the bottom has a very steep slope, you may be confronted with setting the second anchor in fairly deep water, perhaps 25 feet. If that happens, don't worry so much about the anchor scope, which would theoretically be 4:1. The sloping bottom will work in favor of the situation, making the effective pull on the anchor quite parallel to the bottom, which is all that a long scope accomplishes.

Ways to rig the anchors

We have not tried this technique with a wide range of anchor types and rodes. We use a Viking and a Fortress, both aluminum fluke anchors similar to a Danforth in shape. The smaller Viking is on six feet of chain, and the Fortress FX 16 (sized to be a storm anchor) is on 15 feet of chain. We have not tried to do any of this with an all-chain rode, but we can't think of why it would not work.

We first tried using a 200-foot line with thimbles at both ends, tying it off in the middle at the boat. That works fairly well, but translates into a lot of line to move, pile, and stow. We have found a much handier alternative. Omega Pacific makes a hardened steel carabiner that has the proper working strength for our anchoring system. We use 1/2-inch nylon double braid and 5/16-inch proof coil chain. We use carabiners to connect the anchors to the chains and the chains to the rodes. We use two 100-foot rodes with thimbles at each end and a third line (which need not be very long for anchoring) to connect the two rodes to each other and to cleat off on deck.


This rigging allows the boat to swing on the anchors without the rodes twisting up. (See photo at right.) What little twist there is, we can untwist when we bring the junction of the three lines aboard. We originally got these carabiners to use with our sea anchor. We didn't want to spend too much time on the foredeck with shackles,

marlinespikes, safety wire, and wire cutters while the boat was pitching in a large sea. We thought it better to have rigging that could be worked with one hand. We rig our sea anchor to the anchor rode and can let out 600 feet of line because the "short line" described earlier is really a tied-off 400-footer, with the remaining 380 feet of it packed in a cotton laundry bag stored below. The carabiners are the key to making up this rig in a hurry in heavy weather conditions. They also allow the two anchors to be rigged and put over or retrieved and stowed more easily. All parts of the system can be broken down quickly without tools because of the carabiners.

The corrosion resistance of the carabiners is an issue. They are certainly fine for use in fresh water. We have used them on Lake Superior without a problem for several years. Salt water is another matter. We have learned that these fittings are used for towing underwater research equipment in saltwater service but are not used, to our knowledge, for ocean anchoring.

We contacted the manufacturer, Omega Pacific, and asked them if they had any plans to make a more corrosion-resistant carabiner for marine saltwater service. Bill Griggers, marketing manager, explained that the existing carabiners are made from hardened steel with a high-quality zinc chromate/gold plating. They have stainless steel rivets and springs and are considered adequate for freshwater service. He noted that Omega Pacific is developing a line of all-stainless steel carabiners for marine use. We asked Bill to tell us when this product is on the market.

There are galvanized anchor shackles available that are strong enough, and less costly, but they are not as handy.

There you have it. Two hooks put in properly will contribute more to a good night's sleep than a hot cocoa, a roomy bunk, and a thick mattress. Happy hooking. 



Safe shorepower

The shorepower hookup on my first sailboat was a mechanic's droplight and an outdoor extension cord — uncomplicated and no more dangerous than, say, a table lamp on a bathtub. My next boat had the several-hundred-dollar shorepower “option” — an inlet fitting in the cockpit wired directly to four duplex receptacles in the cabin. This was more convenient and no more dangerous than, say, bare wiring in wet grass.

Electricity and water are a deadly combination. However you bring shorepower aboard your boat, if you do it without the appropriate safeguards, you place yourself, your crew, and your guests at a terrible — and foolish — risk.

What is alternating current?

The 12-volt battery on your boat, when it is in a charged condition, has excess electrons in one side and a shortage of electrons in the other. Connect the two sides and electrons flow through the circuit in one direction — like water through a hose. Direct current — DC — is, by definition, a one-way flow of electrons.

With alternating current — AC — electrons don't flow; they do the two-step. How's your physics? Remember your first science

teacher demonstrating magnetism by

moving steel shavings on top of a piece of paper by passing a magnet beneath the sheet? In much the same way, we can induce particles inside a wire to move by passing a magnet near the wire. This is how generators “create” electricity: coils of wire surround a spinning magnet, and each time a pole of the magnet passes near the coil, it moves the electrons in the wire.

This sounds a bit like getting a wave going in a football stadium, but because electrons have a negative charge, the positive pole of the spinning magnet moves them in one direction while the negative pole

*We've come a long way, baby,
but our boats may be
wired for yesterday*

induces movement in the opposite direction. Close an AC circuit and, for an instant, the electrons start through the circuit just like DC. But back at the generator the positive pole of the spinning magnet is followed by the negative pole, which induces the electrons to flow in the opposite direction. And just as the current starts to flow in the new direction, along comes the positive pole in the generator and reverses the direction again. Electricity generated by U.S. power companies reverses direction 120 times *per second*.

How, you might wonder, does alternating current do any work if the electrons are more or less jogging in place? Consider a light bulb illuminated by connecting it to a battery. If you reverse the connections, the bulb still lights. In an AC circuit, this reversal happens too fast for the eye to see anything more than perhaps a flicker as the light goes off and back on 120 times per second. In fact, the

white-hot filament doesn't have time to cool during the “off” times, so the bulb

glows steadily even though current is only flowing through the filament intermittently — not unlike propelling a play yard swing with intermittent shoves. And as with the swing, the shove can be in either direction.

The big advantage of alternating current has to do with power transmission. Because the voltage of AC is easily transformed, AC can be transmitted long distances at high voltage, then stepped down to lower voltage for end use. High voltage transmission allows the use of relatively small wire.

The danger

Hey, pay attention now! AC is as deadly as a rattlesnake in your sock drawer. Why? Well, partly it has to do with the higher voltage of AC.

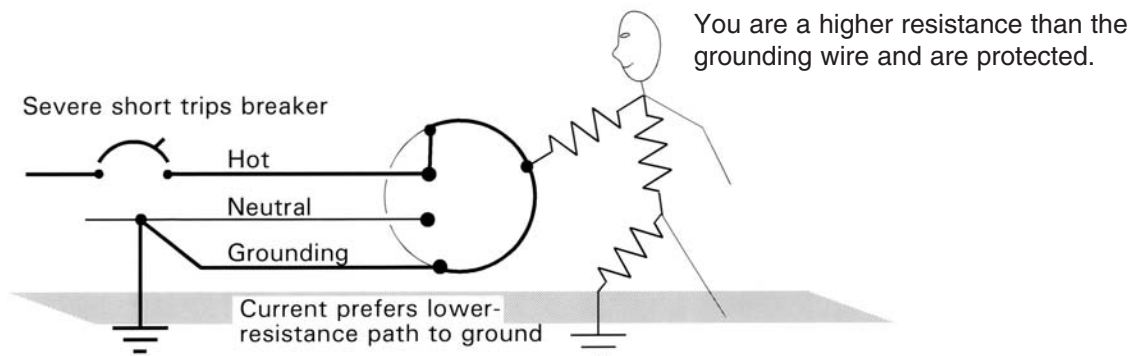
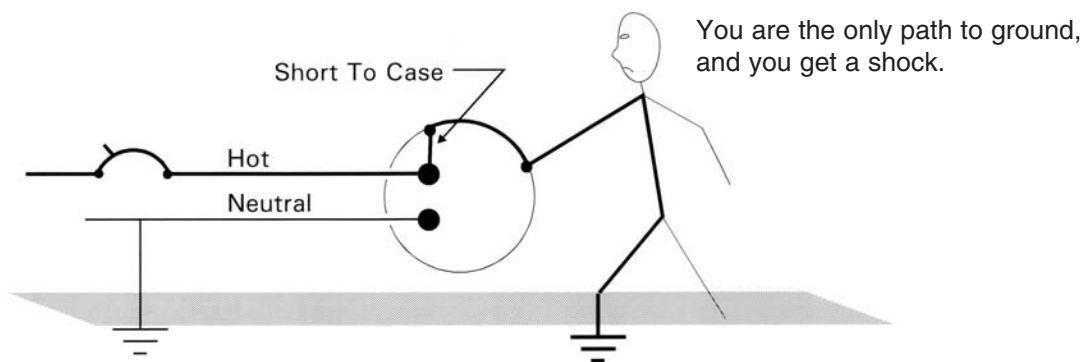
There is an old shaggy-dog story about a train crewmember found guilty of murdering his engineer and fireman and condemned to the chair. When three attempts to carry out the sentence are unsuccessful, the last with cities and towns darkened to direct every volt of the state's generating power through the body of the murderer, the governor, citing a higher authority, commutes the sentence. Asked by reporters what prevented the electricity from killing him, the railroad man says, “I guess I just never was a very good conductor.” Bad joke; good physics.

Hand-to-hand resistance through the human body is usually at least 1,200 ohms. You can check yours by holding the two probes of a digital ohmmeter with wet fingers. Dividing the voltage applied by the resistance encountered gives us the current flow. This is Ohm's Law, but if you aren't familiar with it, don't zone out on me. I include it here only to show you why shorepower is dangerous.

If you touch both terminals of a 12-volt battery, current flow is 12 divided by 1,200 (or whatever body resistance you measured). A current 1/100 of an amp is insufficient to pose a serious risk. But get across a 120-volt AC circuit and the current becomes 1/10 of an amp. In combination with the pulsating nature of AC current, this is more than twice the level needed to interfere with your body's natural electrical impulses. It can dangerously — even fatally — disrupt heart rhythm.

As long as you keep this danger solidly in mind, reworking the AC

by Don Casey



The grounding wire protects you from shock.

system found on many good old boats (or installing a new one) is likely to represent a lower risk than blind trust in the existing components. And a few simple precautions can lower the risk even more:

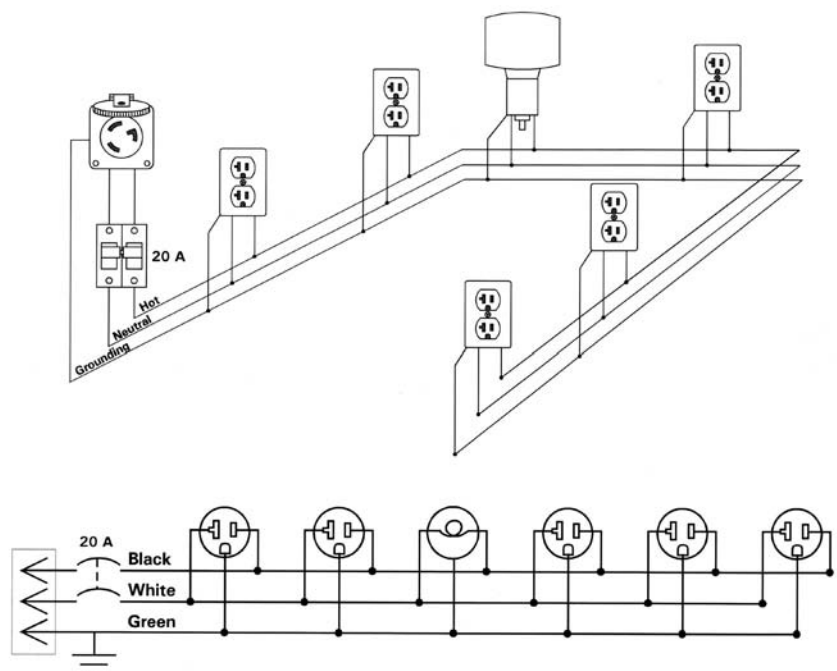
- *Disconnect the AC system from all power sources.* You may have to energize the wiring for testing, but never, ever work on a hot system.
- *Religiously check all wires with a voltage tester before touching.* This practice is the electrician's version of "measure twice, cut once." You may have unplugged the dock cord but forgotten to disconnect the inverter. With a neon tester or a voltmeter, make sure there is no voltage between any two wires or any wire and ground.
- *Keep one hand in your pocket.* The habit of working with one hand until you need the other reduces the risk of lethal shock.
- *Wear rubber soles.* Don't work on the AC system with bare feet. A damp cabin sole could electrically connect you via a thru-hull to ground.
- *Don't leave the power cord on the dock.* A helpful passer-by might plug

it back in for you and send you to the next life.

- *Don't work alone.* Especially if you are testing a live circuit, have someone close at hand who can shut off the power and/or provide assistance in case of a shock.

Three-conductor system

In a DC circuit, we need only two conductors, one to carry power from the source to the load and a second to complete the circuit and provide a return path for the current flow. We call these two conductors positive and negative, respectively.



A single circuit offers the benefit of simplicity.



This inlet needs to be replaced with one that seals out the weather when in use.

In the not-too-distant past, AC circuits were also comprised of just two conductors. Today's AC circuits use three wires, and it is essential to your safety to understand the function of each.

Because the direction of current flow in an AC circuit is reversing 120 times per second (60 positive-to-negative-and-back-to-positive cycles), it is counterintuitive to refer to one side of an AC circuit as positive and the other as negative. Instead, we call one side hot, the other side neutral. But since both sides connect to the generator, how do we know which is which? The answer lies back at the generator, where one side of its output is connected to a buried metal plate or bar to hold it at ground potential. Consequently, there is no potential (voltage) relative to ground on this side of the circuit, so it is the neutral side.

That makes the other side hot and, in fact, a voltmeter connected between this conductor and ground will indicate voltage. By code the hot wire in an AC circuit is black, red, or blue; the neutral wire is always white. It is the hot side of the circuit that is the most dangerous, but you should always treat both sides with equal respect because a wire reversal anywhere between you

and the power source will make the wire you expect to be neutral hot.

The third wire is called the *grounding wire* and it, too, is connected to ground *at the power source*. At its other end, the grounding wire is connected to all metal components, junctions, and appliance housings and, through the third socket in 120-volt outlets, to the external cases of plug-in equipment.

Since neutral also runs to ground, you might wonder why we need a second grounding wire. It is there to keep you alive. If, for example, wire insulation inside an appliance melts or abrades and the wire comes in contact with the case, the case becomes "hot." No fuse blows because there is no circuit and thus no current flow. And depending on the fault, it probably doesn't have any effect on the normal operation of the appliance. All seems right with the world . . . until you touch the case. Then your body completes the path to ground and you get a nasty shock.

The grounding wire changes all that. A short to the case instantly becomes a short to ground, probably opening the breaker in the circuit. And even if the short is insufficient to kick the breaker, or if it occurs while you are holding the appliance, the grounding wire still protects you by providing a lower-resistance path to ground than your body offers.

Anything that degrades or opens the grounding circuit, such as a broken connection, a corroded or missing ground prong, or an improperly wired outlet leaves you dangerously vulnerable. Ashore the grounding wire is often bare, but in boat wiring it should be insulated and green. We will be coming back to this all-important green wire.

The inlet fitting

A safe and trouble-free shorepower system begins with a top-quality inlet fitting. The original on my old boat came with

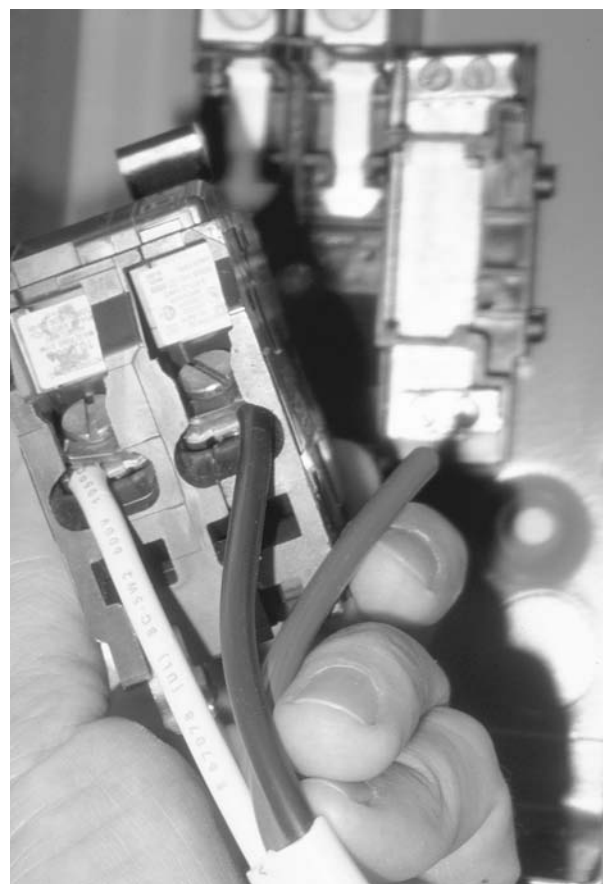
Clamp terminals allow stranded wire to be connected directly to the breaker but use crimp-on ring terminals for grounding wire connections.

a rubber stopper to seal it when not in use but, in a dangerous kind of irony, it was shielded from weather only by the plug when power was actually running through it. If the shorepower inlet on your boat isn't weather tight when connected and when disconnected, you need a different fitting.

A fitting with a screw-on cap will give a more positive seal than one with a spring-loaded cover. High-quality bronze or stainless-steel fittings are substantially more durable than the plastic variety. The difference in cost between a cheap inlet and a good one is typically less than 25 bucks, so buy the good one. You can expect it to last the life of the boat.

Even if you don't need 30 amps on your boat, install a 30-amp inlet fitting. The 30-amp locking receptacle has become the norm at most U.S. and Caribbean marinas, so a 30-amp inlet minimizes compatibility problems.

Your inlet fitting should be convenient but safely out of the way. Higher is better than lower. The backside of the fitting should be well ventilated and not at risk of mechanical damage. And the inlet fitting must be not more than 10 feet (wire distance) from the main AC circuit breaker on the boat — or vice versa.



Circuit breakers

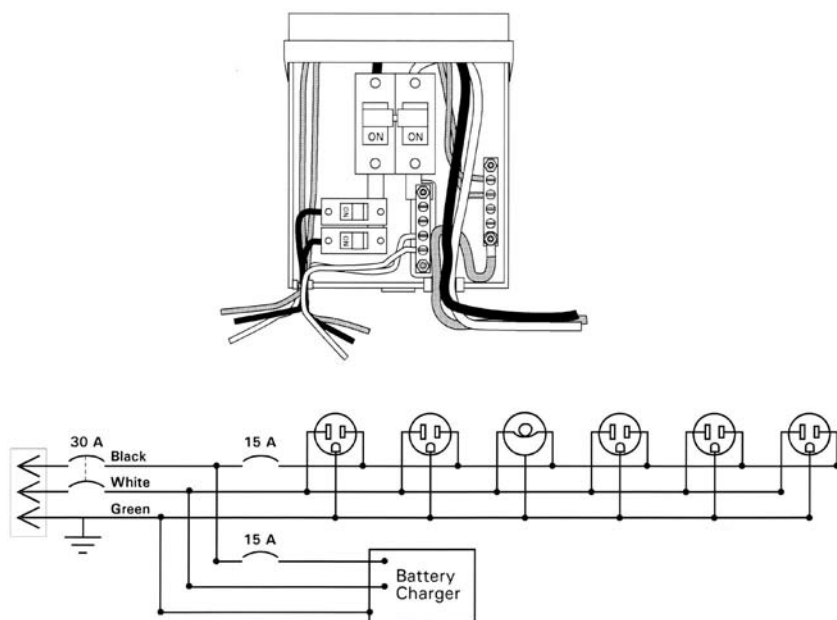
The AC circuit breaker was omitted in a lot of older boats. The thinking at the time was that a boat was just another “appliance” plugged into the marina circuit, which was already-protected. Of course, by the time the breaker at a dock office a quarter of a mile away sensed trouble, a lot of boats were also already in flames.

A safe AC system has an onboard dual-pole breaker to protect both the hot and the neutral conductors. The breaker rating must not exceed the service. In other words, if you have a 30-amp inlet, your main breaker cannot be larger than 30-amps.

Despite the tendency of today’s boatbuilders to incorporate the AC main breaker into the main switch panel, putting it in a small weatherproof breaker box near the inlet fitting — typically high in a cockpit locker — gets it into the circuit sooner and is the preferable configuration. You will rarely, if ever, switch this breaker.

Do you need more than one breaker in the box? The AC requirements on many sailboats can be more than satisfied with a single double-pole breaker and three to six outlets installed in convenient locations in the cabin. If you have 15-amp outlets, the breaker must also be rated at 15 amps. Or, to take better advantage of your 30-amp inlet, you could install 20-amp outlets and a 20-amp breaker. A single-circuit offers the benefit of simplicity, and with the breaker in a dedicated box adjacent to the inlet, this configuration also maintains complete separation between the AC and DC systems. No switch panel in the cabin is needed.

To take full advantage of a 30-amp service, give your boat two 15-amp circuits. In this configuration one circuit typically supplies cabin outlets and the other feeds a hard-wired charger or charger/inverter. It is common practice to use single-pole breakers for branch circuits, but this is less than ideal. If polarity is reversed — a far-too-common occurrence — a single-pole breaker is on the wrong side of the circuit and gives no protection. For this reason, the main breaker is always double-pole, but that still doesn’t provide lower-threshold protection to both sides of all branch



Single-pole breakers for branch circuits are common, but dual-pole breakers provide better protection.

circuits. Double-pole breakers are more expensive, but if you use double-pole breakers for the branch circuits and their combined capacity doesn’t exceed 30 amps, you don’t really need an additional “main” breaker.

If you want 20-amp outlets in the cabin, and your charger specifies at least a 15-amp circuit, then you will need a 30-amp main breaker to prevent the combined draw of the branches from exceeding the inlet capacity. The main breaker *must* be dual-pole; the branch breakers should be.

An AC switch panel is not likely to offer better convenience because flipping AC breakers should be a rare occurrence, but if you prefer a switch panel in the cabin, commercial units are available. Just remember that the wire from the inlet to the main breaker is unprotected, so keep it as short as possible, not more than 10 feet. And do not combine AC and DC in a single panel.

Wire

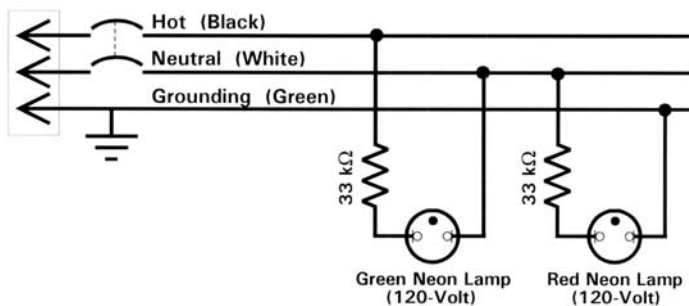
Resist any temptation to use house wire (Romex) for the AC circuits on your boat. Common house wire is solid copper, fine for a quiescent life inside a wall but unsuitable for the marine environment. Wave- or motor-induced oscillations eventually fracture solid wire. Boat wiring requires the flexibility of stranded wire, preferably the most flexible kind, called Type 3.

You will be way ahead in the long run if you also use tinned wire. Bare

copper corrodes in the marine environment, reducing conductivity, especially at terminals and connections. Tinning — plating each strand with a thin coat of tin — dramatically improves corrosion resistance.

Since protection is somewhere back up the line, wire size to the main breaker is dictated by the type of inlet. A 30-amp inlet requires 10-gauge wire. Fourteen-gauge is adequate for a 15-amp inlet. **Note:** A 50 amp service is rare on boats under 50 feet, but if your AC load requires 50 amps, the wire between the inlet and the breaker must be #6 AWG.

If you have done any DC wiring on your boat, you know that minimizing voltage drop is the primary determinant of wire size. Given the short wire runs on a boat, we wouldn’t expect voltage drop to be much of a concern with AC, but surprisingly, it can be. Modern compressors require start-up current (called inrush) as much as six times the compressor’s nominal draw. Voltage drop increases correspondingly. If the wire is too small, supply voltage may actually drop below the level required to start the compressor. So if you expect to run an air conditioner or an AC refrigerator on board, install wires at least one size larger than the table suggests; a two-size increase is not overkill. If you bundle wires for two or three circuits (not recommended, but sometimes nearly unavoidable) their combined potential for heating — think



Automatic polarity tester circuit.

about a crowded room — necessitates wire two sizes larger than normal anyway. And larger wires offer the added benefits of running cooler and giving your system add-on capacity. Installing fat wires to start with (no pun intended) will nearly always save you grief — and money.

Breaker connections

If you are using double-pole breakers, connect both current carrying wires — hot and neutral — to the breaker. It doesn't matter which pole the hot wire connects to, but both hot wires — incoming and outgoing — must attach to one pole, and both neutral wires to the other. Crossing wires at the breaker puts all power switches on the wrong side of the circuit.

Single-pole breakers are always installed in the hot side of the circuit.

Neutral and ground

When wiring single-pole breakers, connect the other side — the neutral side — using a butt connector or a terminal strip. If you use a terminal strip, *it must not be electrically connected to the box or panel*. In your breaker box at home, the neutral wires and grounding wires all connect to the same terminal strip (or bus bar), but on a boat, for reasons covered a little later, the AC grounding wire must also connect to the boat's DC ground, usually at a bolt on the engine. Consequently, if you connect the neutral wire to the grounding wire on a boat, underwater hardware becomes a current-carrying path to ground. For anyone in the water nearby, this makes your boat the equivalent of a giant bug-zapper. And should polarity be reversed, appliance cases and wiring boxes become energized. **On a boat the neutral (white) conductor and the grounding (green) conductor must never be connected directly.**

with double-pole breakers, reversed polarity puts on-off switches on the wrong side of the circuit, leaving appliances that are turned off fully energized. You must always be certain of correct polarity.

A polarity tester connects a light or buzzer between the white and green wires. Nothing happens as long as the white wire is at the same potential as ground, but reversing the polarity puts the white wire at 120-volts, illuminating the light or sounding the buzzer. Since the white and green wires must never be directly connected on a boat, a momentary switch is a required part of this circuit.

Where AC circuits are protected by single-pole breakers, the polarity tester should not require manual intervention. Using a high-resistance neon lamp as the indicator reduces potential current to too little to cause any mischief, allowing you to omit the switch. Leaving a plug-in polarity tester plugged into a visible onboard outlet is an even simpler alternative.

Routing AC wiring

The best place for AC wiring is high in the boat — against the underside of the deck. Never route AC wiring where it might be at risk of submersion.

Because of the potential to confuse the black AC hot conductor with the DC negative — also black in old boat wiring — keep AC wiring separated and clearly labeled. Support the wire at least every 18 inches and protect it from chafe.

AC connections must be protected by an enclosure. Route wires into junction, outlet, and breaker boxes from the bottom

Commercial grade outlets have clamp terminals safe for stranded wire.

Polarity tester

Single-pole breakers necessitate a hard-wired reverse-polarity indicator to ensure that the breaker is always on the hot side of the circuit. Even

only so the wire doesn't provide an entry path for water. To avoid chafe, clamp wires where they enter the box. Leave enough extra wire (around 4 inches) in outlet boxes to allow the outlet to be connected outside the box. Fold the excess wire behind the outlet.

Outlets

Outlets are all polarized, and the Lone Ranger's white horse, Silver, has long provided the association necessary for me to remember which wire connects to which terminal. White goes to silver. So the black wire connects to the opposite terminal, usually brass, but sometimes dark. The green terminal is for the green grounding wire.

Electricians ashore simply tighten terminal screws onto a loop of wire or insert the stripped end into a spring clamp. Neither method is appropriate on a boat, both because the wire is stranded, not solid, and because boats introduce motion into the equation.

As with all connections, those to outlets (and other terminal screws) require a proper crimp terminal on the conductor. Where the terminal screws are captive, use locking spade terminals rather than ring terminals. If you are replacing outlets or adding new



ones, look for commercial-grade outlets that have screw-tightened clamps in place of the more typical screw terminals. These may be used with stranded wire without crimp connectors.

Ground fault interrupt

Regular circuit breakers are essentially fire-protection devices and offer no protection against electrical shock. A ground-fault circuit interrupter (GFCI), on the other hand, provides a high degree of shock protection. If you accidentally touch an energized wire or component and you are grounded, the GFCI disconnects the circuit in about 1/40 of a second, too little time for the current to build to a dangerous level.

In recognition of the increased risk of shock in damp environments, many municipal building codes mandate GFCIs in bathrooms and, increasingly, kitchens. Boats are damp environments, and every outlet on a boat should be protected by a GFCI.

GFCIs are inexpensive — about \$10 — and easy to install. Simply replace the first outlet on a circuit (counting from the breaker) with a GFCI fixture, and all the outlets on that circuit will be protected. Make sure the terminals marked “line” are connected to the wires leading back to the breaker and those marked “load” feed the remainder of the circuit.

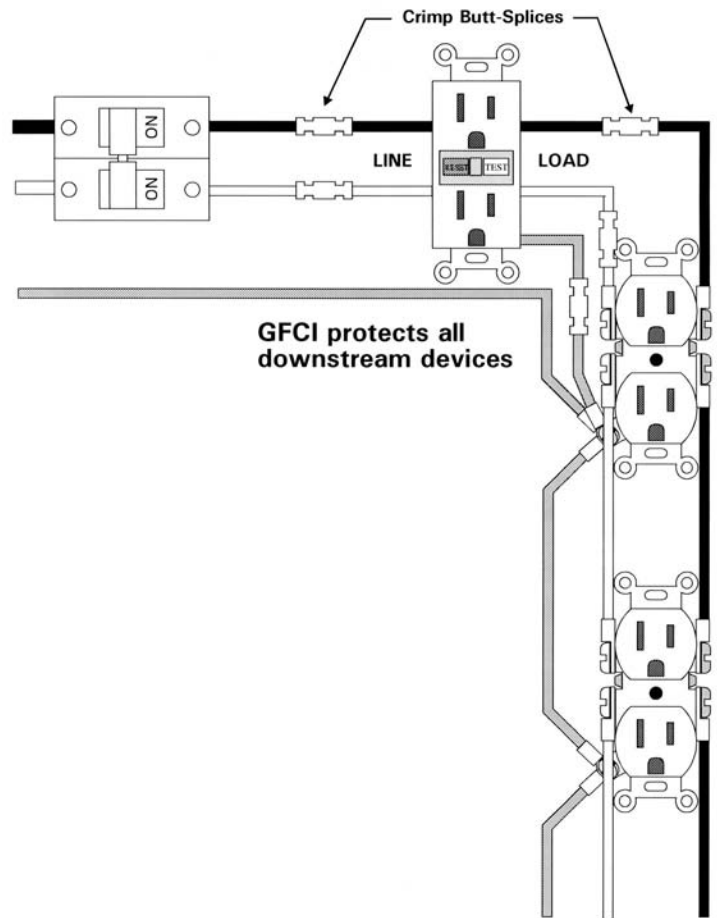
After you install a GFCI fixture, always test it. Energize the circuit and push the reset button. It should stay in. Plug a lamp into the GFCI outlet and turn it on, then press the test button.

The GFCI should trip and turn out the light. Reset the GFCI, move the lamp to the next outlet on the circuit, and test again. Check each outlet to make sure all are protected.

Remember that the GFCI only senses a short to ground. If you get across the hot and the neutral wires of a circuit, a GFCI won't protect you.

The green-wire revisited

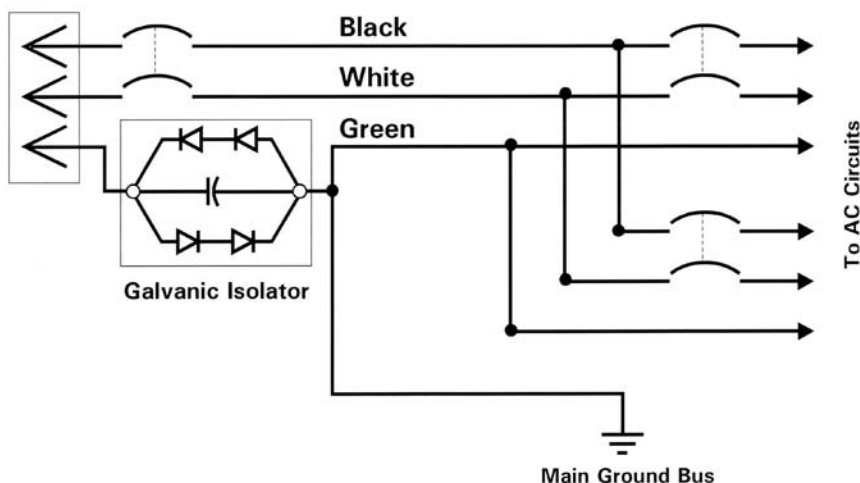
You already know, if you've been paying attention, that the green wire provides a low resistance path to ground should any of the various metal cases enclosing your AC system become energized. But what if the leak is into the DC wiring, caused, for



A GFCI outlet protects all downstream outlets on the same circuit.

example, by a crossed wire or a short in a dual-voltage appliance — a battery charger, inverter, or dual-voltage light fixture? Any AC that leaks into the DC system will seek ground, meaning it will automatically travel through the wiring to the ground connection on the engine and down the prop shaft to the water. This is essentially the same as dropping a hot wire into the water. In fresh water, this poses a real risk of electrocution for anyone in the water nearby. The better conductivity of saltwater tends to pass the current straight down to ground reducing the risk of electrocution, but the current field can be enough to paralyze muscles and cause a swimmer to drown.

Connecting the green wire to the ground terminal on the engine offers AC leakage into the DC system a lower-resistance path to ground — through the grounding wire. This eliminates the risk to swimmers as long as the grounding wire connection to ground is sound. However, if a fault occurs in the green wire somewhere between the power inlet and the buried grounding plate, all ground-fault current, not just



Insert a galvanic isolator into the green wire at or near the inlet.

AC to DC leakage, will flow into the water — just the condition we are trying to prevent. GFCIs eliminate this risk for the circuits they protect, but corrosion on the ground prong of your dock cord can make circuits unprotected by a GFCI lethal. It is essential to test the ground connection at the dock and to maintain cords and plugs in good condition.

Corrosion

Connecting the green wire to an underwater fitting completes the circuit between your boat and all other nearby boats with their own green wires grounded. With seawater as the electrolyte, every grounded fitting essentially becomes part of a big battery. If your fittings are less noble on the galvanic scale than your neighbors' fittings, they are anodes and begin to erode.

Even if your prop and shaft are similar to those around you and they are well protected with zinc, stray DC currents from a neighboring boat can seek ground through your green-wire connection, causing electrolysis. A serious stray-current leak can eat underwater components away in a matter of hours. Boats sink at the dock every year due to this condition.

Disconnecting the green wire from the ground lug on the engine eliminates the risk of galvanic or stray-

current corrosion caused by other boats. But it puts anyone in the water at risk while the boat is plugged in. Don't do it. A far safer strategy for breaking the green-wire connection to other boats is to unplug. This prevents galvanic and stray-current corrosion caused by other boats, and rather than increasing the risk to swimmers, it eliminates it (with regard to your boat). Leave your boat unplugged when you are not aboard. A small solar panel is better for your batteries than a battery charger anyway.

Isolators

If you must stay plugged in, install a galvanic isolator in the green wire. This device is simply a pair of diodes connected in parallel to a second pair conducting in the opposite direction. Opposing pairs of diodes pass current in both directions, allowing both AC and DC to flow freely through the isolator once the diodes become conductive, but it takes about 0.6 volts to cause a diode to become conductive. Two in series block all current flow unless the voltage exceeds about 1.2 volts. Galvanic voltages between underwater metals are lower than this, so no current flows. The voltage of most stray currents, by the time it reaches your boat through the water, will also be too low to cause the diodes to pass a current.


To prevent unknown connections between the AC grounding wire and the DC system from allowing currents to bypass the isolator, insert the galvanic isolator into the green wire as soon as it comes aboard. It is essential that an isolator not interfere with the grounding wire's primary function, so the diodes must be sufficiently hefty to carry short-circuit current (up to 3,000 amps in a 30-amp circuit) long enough for the circuit breaker to trip. And the inclusion of a parallel capacitor — an electronic component that passes AC but not DC — prevents a diode failure from disconnecting the grounding wire, a potentially hazardous condition.

The best way to avoid all the negative consequences of a shorepower connection is with an *isolation transformer*. Shore power flowing through one side of this device induces

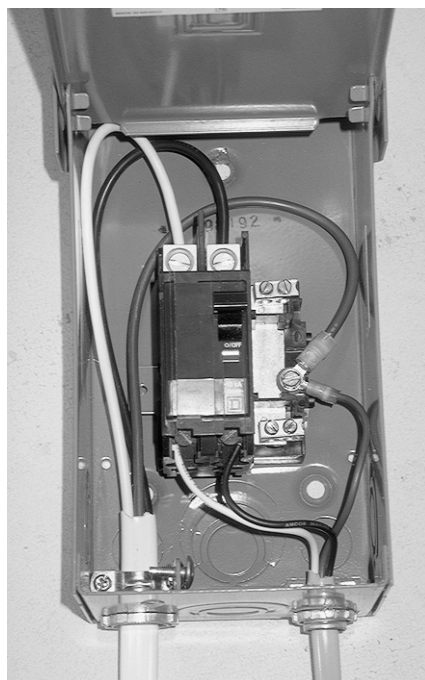
AC power on the other side that energizes the boat's AC system, but there is no direct electrical connection between the boat's AC system and shore. The DC system is likewise isolated from shore, eliminating external galvanic and stray-current corrosion as effectively as unplugging. Unfortunately, isolation transformers are big, heavy (200 lb), and expensive, limiting their practicality to relatively large boats.

Plugging in

The final component in your shorepower system is the dock cord. It must be able to withstand exposure, abrasion, submersion, and often strain. An extension cord from a builder's supply, even one labeled "Heavy Duty," is not an appropriate shorepower cord. To stand up to the hard service of marine use, the cable should carry a hard-service rating — SO, ST, or STO. There must be no possibility of the cable pulling free of the plugs (dock cords sometimes become docklines) or of the plugs pulling out of the receptacles. For 30-amp service, the conductors must be #10 AWG or larger.

If the AC system on your boat falls short of the standards outlined above, corrective measures are essential. With sufficient care you can make the required changes yourself; AC wiring is no more complicated than DC, only more dangerous. Even if you decide to take the more prudent course of leaving AC system repairs to a qualified marine electrician, you should still carefully examine the finished system. When it comes to AC power, what you don't know definitely *can* hurt you. 

This article was adapted from Don's newest book: Sailboat Electrics Simplified, part of the International Marine Sailboat Library, and is scheduled for publication this spring.



Weather-proof breaker box protects the main breaker.

Excerpt from the ABYC

**Allowable amperage of conductors
when no more than two are bundled**

TEMPERATURE RATING OF CONDUCTOR INSULATION

Conductor size (AWG)	60°C 140°F		75°C 167°F		80°C 176°F		90°C 194°F		105°C 221°F		125°C 257°F		200°C 392°F
	Outside Engine Spaces	Inside Engine Spaces	Outside Engine Spaces	Inside Engine Spaces	Outside Engine Spaces	Inside Engine Spaces	Outside Engine Spaces	Inside Engine Spaces	Outside Engine Spaces	Inside Engine Spaces	Outside Engine Spaces	Inside Engine Spaces	Both Eng. Spes
16	15	8.7	15	11.3	20	15.6	25	20.5	25	21.3	30	26.7	35
14	20	11.6	20	15.0	25	19.5	30	24.6	35	29.8	40	35.6	45
12	25	14.5	25	18.8	35	27.3	40	32.8	45	38.3	50	44.5	55
10	40	23.2	40	30.0	50	39.0	55	45.1	60	51.0	70	62.3	70
8	55	31.9	65	48.8	70	54.6	70	57.4	80	68.0	90	80.1	100
6	80	46.4	95	71.3	100	78.0	100	82.0	120	102.0	125	111.3	135
4	105	60.9	125	93.8	130	101.4	135	110.7	160	136.0	170	151.3	180

Footnote: 18-gauge wire and wires larger than 4-gauge have been omitted from the table. This table allows two current-carrying wires and a ground wire (hot, neutral, and ground).

Table 1
Allowable amperage

Wire type	AWM, BC5W2, UL1426 boat cable	
Temperature rating	105°C (221°F)	
Wire gauge (AWG)	Outside Engine Spaces	Inside Engine Spaces
18	Not allowed*	
16	25	21.3
14	35	29.8
12	45	38.3
10	60	51.0
8	80	68.0
6	120	102

Derating for bundled AC cables

Current-carrying conductors	Derating factor
3	0.7
4 to 6	0.6
7 to 24	0.5
25+	0.4

* ABYC guidelines allow limited use of #18 AWG wire inside the panel board, but in deference to human nature, boatowners should never buy wire smaller than #16 AWG.

**Good Old Boat's wire picks
(as shown in above table)**

There is nothing in the ABYC standards prohibiting the use of larger wires than the minimums recommended. There are some compelling reasons to do so. It is the copper that does the work. A wire with high temperature insulation runs just as hot, and has just as much voltage drop as a wire with low temperature insulation. The only reason it's rated for more current is that it can stand the temperature that develops. A heavier gauge, cooler wire is a better choice, especially for starting motors and for supplying other voltage sensitive equipment. Use more copper. It is a little heavier. It costs a little more, but it's worth it. We recommend these selections for a 30-amp 115-volt shorepower system:

- Use good high temperature insulation, but adhere to the 75°C engine space ampacity rating anyway.
- Minimum wire size for any purpose should be 14-gauge.
- Consider making all branch circuits 20 amps instead of 15 amps.
- It is OK to use a 15-amp outlet on a 20-amp circuit, but not the reverse.
- The wire picks:

30-amp breaker	10-gauge minimum
20-amp breaker	12-gauge minimum
15-amp breaker	14-gauge minimum

It's a good idea to have a knowledgeable person check your work before you plug it in, especially if you are unfamiliar with these concepts.

Need anodized parts?

Four years ago, I decided the aluminum portlight frames on *Surprise!*, our Bristol 29.9, looked pretty tacky. The aluminum was splotchy and corroded. I decided to clean and anodize them. After recovering from the sticker shock of a commercial estimate, I decided it just can't be that hard. After some research, I came across an article about aluminum finishing in the amateur radio magazine, *QST*, of May, 1950.

I followed the instructions and lo and behold, the portlight frames looked really great. It was so much fun I then anodized several cleats. Today, these parts look just as they did when I finished the job. Two of those years have been spent in the salty water of the Pamlico River.

Anodizing sounds impressive but, like many things, a little analysis shows there is nothing very tough about it. The term simply means the outer surface of the aluminum is changed to aluminum oxide. The oxide is the stuff of which many precious stones are made. It is as hard as rubies or sapphires. It is a good insulator — a property used to test the finished product.

To make the anodized film, you connect the piece of aluminum to be treated, a cleat for instance, to the positive side of a DC power supply and another piece of aluminum to the negative side. This piece should have about the same surface area as the cleat. You place them both in a sulfuric acid solution. The current from the DC supply passes from one piece of aluminum to the other through the solution. At the positive side, our cleat, also known as the anode (hence the name anodizing) generates atomic oxygen. This gas immediately reacts with the cleat and changes the surface to aluminum oxide. The other piece of aluminum (the cathode) is busy generating hydrogen. It's not dangerous because so little is generated.

There is nothing the least bit critical about this process. Commercial operations control all the variables because they want to produce a consistent product thousands of times. For our boats, we can be much less fussy and get really good results.

by Greg Mansfield

Let's go through the procedure using a corroded, black painted cleat from my mast. Removing the corroded cleat was a three-hour chore. The mounting screws were "cemented" to the cleat's mounting holes. The cement was aluminum oxide (see, *I told you it was tough stuff!*) made by the electrolytic action between the aluminum of the cleat and the stainless mounting screws.

The first step is cleaning the cleat. I removed the black paint using a strong paint stripper. Next I sanded the corrosion off the cleat with sandpaper. Then I used an abrasive pad to polish the surface to a desirable sheen and texture. (I've tried buffing to a "silver" shine, but the anodizing process removes this luster.) I then washed the cleat with soap and water.

For this cleat, I decided to get a matte finish by submerging the part in a lye (sodium hydroxide) solution. (Just a couple of tablespoons of lye in a pint of hot water.) The cleat bubbled furiously as the aluminum and lye solution reacted.

I let it bubble for about 15 minutes. (If you leave the cleat in long enough, it will totally dissolve!) The surface of some aluminum alloys may turn black. This one did. Just scrub it off with abrasive cleansing powder like Ajax.

Now assemble the actual anodizing setup. First you need a DC source. My 12-volt trolling motor battery was in the garage (on the concrete floor), and not doing anything, so I used it. I found a piece of scrap aluminum for the cathode. I cleaned it so it would not contaminate the process. You also need aluminum wire to connect to the cleat and the cathode. It's very important to have only aluminum metal in the acid solution. Other metals will react with the acid solution and "poison" the anodizing process.

Lots of hardware stores have aluminum clothesline or picture wire. While you are at the hardware store, get a couple of nylon bolts and nuts to attach the wires to the cleat and the cathode.

You must have a container for the process. It should be a glass or plastic pan big enough for the cleat and the cathode.

I used a Rubbermaid shoe box. You can use an aluminum pan, and it will also serve as the cathode. **Editor's note:** *Don't let the cleat (anode) touch the pan, if metal, nor the other piece of aluminum (cathode). A short circuit in a pan full of acid and hydrogen gas will spoil your day.*

Next you need the sulfuric solution. I mixed up the sulfuric acid solution from a small bottle of battery acid from an auto parts store (\$4.95). The mixture is 1

To get a matte finish, I submerged the cleat in a lye (sodium hydroxide) solution.



Make them yourself



The cleat – before and after – shown in the photos at right. Remember: do not pour the water into the acid. Pour the acid into the water (photo at top left.) Make enough solution to completely cover the part to be anodized. Assemble the anodizing setup (photo at lower left). You need a battery, a plastic container, scrap aluminum, cleanser, lye (if you want a matte finish), aluminum wire, paper towels or cotton gloves, and battery acid to make the sulphuric solution.




part acid to 8 parts water by volume. We need enough to submerge both pieces of aluminum. This mixture must be made by pouring the acid into the water. **Caution:** *If done the other way, the acid will spatter, due to heat generated by the mixing. To remember this, think: Do what you oughter. Add acid to the water.* I wore old clothes, because the acid will eat holes in most fabrics.

Do a final cleaning with cleanser and water and rinse well. Avoid touching the cleat with your fingers to prevent the oil from your fingers from getting on the cleat. I used a paper towel; the pros use cotton gloves. Connect the cleat to the positive lead of the battery using a nylon bolt to attach the aluminum wire to the cleat. Lower the cleat into the acid solution. Then connect the cathode to the negative lead again using the aluminum wire and nylon bolt and put it in the solution. Both the cleat and the cathode begin bubbling the gases on their surface: oxygen at the cleat and hydrogen at the cathode.

After about half an hour of bubbling, disconnect the battery and remove the cleat from the bath with tongs. Rinse it off with water and air dry it. If you have an ohmmeter, you can touch the probes to the surface to check the resistance. It should be an open circuit on the megohm range. If you don't have an ohmmeter, trust me.

Now the final touch. At this point, the aluminum oxide film is porous like a sponge. You have to close the pores to finish the job. You do this by steaming the cleat. Place a pan of water on the stove to boil. You will need a lid to keep the steam in. Suspend the cleat over the water. Then start the boiling. Let the cleat steam for fifteen minutes. Dry it off, and you are finished.

After some experience, you may want to try a decorative touch. Before the steaming, you can place the part in a dye bath. Standard fabric dyes like RIT work fine. The dye should be mixed twice as strong as the package says. Add a teaspoon of vinegar to the dye mix. Place the part in the dye bath for half an hour. The dye particles fill in the pores of the aluminum oxide. When the steaming operation closes the pores, the dye particles are sealed inside.

If you are really ambitious, there is nothing stopping you from anodizing your mast and boom. You just need a big enough tank. 

In our next issue we've got Lin and Larry Pardey's "flopper stopper" as our Simple Solution. Following that is "the poor man's windlass" by Dave Chase. Have you got a quick and simple (inexpensive is good, too) solution? Send it to Good Old Boat, and share it with the rest of us. We're all in this together.

We've got Shackleton, sail trim, and

Most readers of *Good Old Boat* are likely to have a good old sense of adventure. Quite a few will harbor dreams of striking out to distant horizons aboard their less-than-state-of-the-art vessels. *Shackleton's Boat Journey* simultaneously satisfies our appetites for vicarious adventure and reminds us why we reserve the bulk of our adventurousness for the imagination: it is not the risk of disaster to our frail ships as much as the certainty of profound discomfort to body and mind. In Shackleton's historic boat journey, the boats fared remarkably well, but the discomfort rose to a colossal scale.

For those who do not know or have forgotten the details of this chapter of Antarctic exploration, Sir Ernest Shackleton was one of the major players in the early 20th century race to be first to the South Pole. Since he neither won the

race nor died trying, he is less well remembered today than Amundsen and Scott, though the sum of his achievements was arguably greater than either of these explorers. His achievements on the ice were matched by his heroic journey of escape by sea and the rescue of his whole party, which is the story of this book. In the spring of 1915, the expedition's ship, *HMS Endurance*, was crushed by ice and eventually sank. The crew and expedition members were forced to make their escape over the shifting pack ice. They eventually found shelter on Elephant Island at the edge of the ice in April of 1916 as winter was taking hold. No one in the outside world knew of their fate or their whereabouts, and they were most unlikely to be rescued by chance from those isolated wastes.

The only possibility of long-term survival was for a small group of men to take one of the ship's remaining lifeboats and sail it across the Southern Ocean to raise assistance for the larger group that would remain on the island through the winter. This book tells the story of the voyage that Shackleton and five members of his team made from Elephant Island to the whaling station of South Georgia in early winter through the worst seas in the world. It was a journey of more than 1,000 miles in a 22-foot open wooden boat, with no more than a canvas cover, an excess of ballast, and a freeboard that had been extended to just over two feet by the expedition's resourceful carpenter. *The James Caird* was named after the principal sponsor of the expedition and was a double-ended, clinker-built lifeboat. It had already been patched after being holed by ice. Its sailing abilities are not explained in any detail, though the little boat managed to perform some remarkable escapes from deadly shores, despite its makeshift rig.

The slender volume is introduced with a substantial essay by Sir Edmund Hillary, of Everest fame. He is connected to this story both by his own low-temperature adventures and by the New Zealand nationality he shares with the author of the book, Frank Worsley. The introduction

proves useful since Worsley, captain of *HMS Endurance* and navigator for this boat journey, wastes little time setting the scene or explaining the times, writing as he was to readers in 1956. The book has been reissued a number of times over the years. This latest paperback edition is nicely produced, with a set of evocative photographs from the expedition.

Worsley's story of the voyage is mostly spare, clean prose, describing the mechanics of survival by a small band of "dirty, smelly little men in Burberry overalls." Nonetheless, the text frequently breaks into poetic evocation of the seascape and the elements, the hardships, and the wonders of "hooch," the miraculous hot soup that nourished them through their long and painful struggle. These flights of eloquence draw the reader into the experience in a compelling way despite the occasional shocks that come from encountering the political incorrectness of a different era and the schoolboy humor of these dedicated servants of the Empire, many of whom would return home only to die within a few months in the trenches of World War I.

Like much biographical prose, this account is uplifting to the spirit, reminding us in condensed form of the wonders of human endurance, companionship, and practical skill. It also reminds us of the powerful and particular value of a good old boat in the right hands and the scale of achievement that is possible with courage in the absence of equipment.

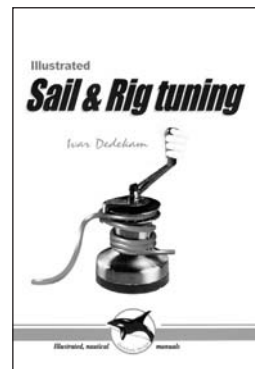
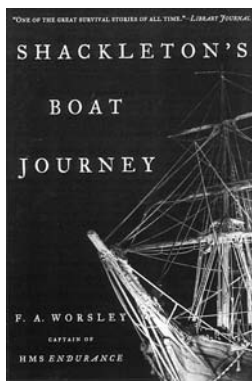
Shackleton's *Boat Journey*, by F.A. Worsley, captain of *HMS Endurance*. Available for \$13 from W.W. Norton & Company, Inc.

Reviewed by Andrew Blight, Ph.D., vice president for research and development with Acordia Therapeutics.

Illustrated Sail and Rig Tuning is a little book which takes on a big job. Since it's 9 1/2 by 6 3/4 inches and 80 pages, we had to wonder. The book is intentionally small and of high quality paper so it can live in cockpits where it belongs. It is succinct and heavily illustrated and does indeed deliver as the title claims.

Author Ivar Dedekam does not mince words. He offers very understandable instructions on how to tune your rig and trim your sails. The physics and fluid dynamics (never called by those names) are all kept light and are done with few words and many illustrations. This part is completed by Page 5. Some beginners may understand it, but experienced sailors will not be bored with this part. Pages 6 and 7 go through the beat reach run illustrations and will be useful for instructing true beginners who are aboard. This is not however, a book for beginners. After Page 7, they will need something else.

Page 8 starts sail shape, twist, flow gradients and all the good stuff that puts the last three quarters of a knot in your



'zines on our minds

boat speed. Unless you have already won the class nationals in your early teens, there is likely to be something in this book for you. If you are convinced that cruising sailors don't need to know how to trim their sails, Ivar is not. He offers the fine detail that a good crew will use to fight for inches in a three-hour dual and then explains what the cruising sailor will want from that.

By Pages 17 and 18 Ivar is putting together how to control jib shape using both the halyard tension and the forestay tension. He relates the desired shape to wind speed and sea conditions and offers the reader an understandable explanation of how these four variables work together. This is where you widen the groove so you can steer through the chop and in the dark. I've seen this misunderstood in major publications and then wrong again when they tried to correct themselves. This little book gets it right in just two pages and lets you understand it. The trick is that you must consider all four variables at once.

By Page 60, sail trim is done. It's all in there in 60 pages including extensive instructions on flying downwind sails. The way to use the first part of the book is to read it carefully and then use it as reference when sailing. Keep it in the cockpit in a zip-type plastic bag.

The second part of the book describes tuning standing rigging. Again, the text is brief. The illustrations show which wires to loosen or tighten to get your stick straight and tuned. The tuning is described as two step-by-step processes, one at the dock, and one under way.

This book is a translation from Norwegian to English. Nothing is really lost in the translation process, but the North American English-speaking reader will find that the version of English is more akin to that spoken in the mother country than in North America. There are some differences in terms, like kicking strap (vang), and rigging screw (turnbuckle), and some of the metric dimensions may not be immediately familiar. As with many translations, a strict grammarian might cringe or get a chuckle, but none of that detracts from the intended mission of the book which is to instruct and be a handy reference for tuning sails and rigging. There is nothing else like this book that we know of.

This book was impressive enough for us to start thinking about having a *Good Old Boat* bookshelf, offering a few special books for sale. Ivar offered us (and several other outlets) the opportunity to sell his book, and we accepted. As time goes on, you will find ads for this book and others we favor in our pages. If you'd like to purchase a copy, send a check for \$24 (this includes \$2 for postage and handling) for each copy ordered to *Good Old Boat*. Be sure you give us a full mailing address with your request.

Illustrated Sail and Rig Tuning, by Ivar Dedekam. Published by Dedekam Design of Oslo, Norway, the book retails for \$22.

Reviewed by Jerry Powlas, *Good Old Boat* technical editor.

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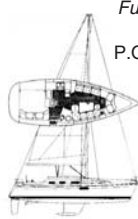
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While at *Good Old Boat* we are still struggling with how to distribute a very basic newsletter electronically so that the largest number of our subscribers can acquire it easily and read it without hassle, along comes a very sophisticated electronic magazine, called *Tidal Times*, which seems to have the distribution problems in hand. And right now, it's free. For more information, go to <<http://www.tidaltimes.net>>. Carolyn and Dave Corbett and Eddie and Bennie Jones make up the foursome behind this bi-monthly sailing magazine which just may rival those on the bookstands. The November-December issue is lively and colorful and full of interesting material by the Corbetts, Joneses, and other contributors, such as Charles Kanter (of multihulls fame), Susan Straubing (who publishes *Sister Sail*), Sally Lee Brown, and Terri Robbins.

The e-zine, as these things are sometimes called, focuses on the cruising lifestyle, destinations, and news from liveaboard sailors. There's an article on provisioning and another on cruising in Cuba. There's an interview with Rosa Day of *Blue Water Sailing* and an article on anchoring. The classified section is fairly lengthy already and includes at least one rather well-known boat for sale. For a mere \$10,000, the 1971 Cal 25 of *Cruising World* medalists Dave and Jaja Martin is ready for another circumnavigation by the right family of four.

Reviewed by Karen Larson, *Good Old Boat* editor.



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Mail continued from 5

towed much better, but could not take the rough going. It was too fragile. Many dinghies are troublesome if towed in rough weather, and we consider this drawback to be minor compared to the advantages of having a kayak for a dinghy.

She is a very good craft in rough water, perhaps better than other dinghies. We can cover many miles in an afternoon without getting tired, and we get to see where we are going, not where we have been. We don't really want the noise of an outboard for our type of wilderness cruising, and among paddle boats, kayaks are probably best.

Corrections (Oops!)

The article on the history of the Allied Boat Company (*Jan. issue*) stated that Alan Eddy, who circumnavigated in an Allied Seawind, had hull #1. Actually Apogee was hull #11.

Also

The zip code we ran in our December newsletter for *Mauch's Sailboat Guide* is 32237. The full address is: P.O. Box 32422, Jacksonville, FL 32237. (See their ad in this issue on Page 65.)

Suggestions and kudos

I think its a great idea! Since these fiberglass boats will float just about forever, you're getting an ever-growing market. Plus, many of us hate the new sailboats . . . too ugly and too expensive. And when you go to the boat show to look at them they make you take off your boatshoes! If the darned things are that fragile, who wants them? And who would want to buy a boat show boat where hundreds of people walked all over it with their stinky feet! Give me a good old boat any day.

Dave Gibson
Johnstown, N.Y.

Yes, I know, you already sent me a copy of your magazine. *BUT* I shared it

with a friend who owns a 1947 Hinckley 27, and he took it home with him before I could subscribe. Look, it was New Year's Eve; I had too much to drink, and he obviously didn't. Luckily I found you on the web. So please, send me another copy so I can subscribe.

Rick Amirault
Salem, Mass.

At last a magazine about real sailing and real boats. I've been searching book racks, the web, marine outlets, dumpsters, and dentists' offices to find a sailing magazine that I could relate to; then comes along *Good Old Boat*. I received a sample copy, gleaned through it and sent my order in for two years plus all back issues. How did you know what I was doing, what I want to do, and some of the problems with my boat? Your magazine is right on target for the majority of sailors who enjoy the sport/hobby but don't necessarily have a million-dollar yacht as other magazines seemingly suggest.

Larry Hawkins
Tracy, Calif.



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What a pleasant surprise awaited me when I turned my computer on today — a newsletter from *Good Old Boat*. First of all, we want you to know we find the magazine one of the best we've ever subscribed to. EVERY article is interesting. You have filled a great spot in our lives. We spend a great deal of our fall, winter, and spring working on boats. We spend the entire summer living aboard. Your magazine is super.
Mike Lusk
St. Johns, Mich.

Just received the latest issue. Great stuff, but you're in a rut; please stop with the Atomic 4! Two issues with so much devoted to them is probably great for Atomic 4 owners, but too much for the rest of us. Thanks.

David Berquist
Chesapeake, Va.

You are right, and we are going to explore other things now, like diesels and stuff. Sorry, but we put all those pieces together a long time ago. Please know that we very much appreciate the feedback. We want to be your magazine.

We could particularly relate to the "Wintertime Blues" pictorial (Nov. issue) as we have not been able to put

our new "old" boat in the water yet! It will be a long winter ... if you can find a way, please make spring come quickly.

Tom and Lynn Zarrella
Warwick, R.I.

We subscribe to: *Practical Sailor* and *Cruising World*, pick up *Sail*, *Spinsheet* (local to the Chesapeake Bay), and occasionally *Ocean Navigator*.

Primarily we are looking for tips to increase our enjoyment, maintenance, and upgrading of our 1977 Pearson 30, *Ariel*. Then you guys showed up with one magazine that seems to cover it all. We've gone to the Annapolis Boat Shows and looked at newer boats. But we are sure they don't sail better, aren't built better, and in a lot of cases, certainly don't look better. So we will keep sailing *Ariel* and now also look forward to your magazine. Glad you followed through with your idea.

Jeff and Kate Fones
Clarksburg, Md.

It is refreshing to see a magazine that is not 50 percent Caribbean charter advertisements. Keep up the good work.

Roger Jette
N. Attleboro, Mass.

I love your website, too, and I was finally able to find someone with the same boat as ours (a Hughes 38)!

J. Stewart Berry
Whitby, Ontario

Wood, cloth, lead, foam, and epoxy = paradise! Now, let's see more of those smallboat interiors.

Michael Moore
Poulsbo, Wash.

I must say you do a fantastic job of creating an atmosphere of community and friendliness unlike many other sailing magazines that seem to cater to the Hinckley set. I love the art, photography, and the journalism. This is truly a unique magazine. Count me as a subscriber and please hang on to your uniqueness!

Eric Peterson
Biloxi, Miss.

I love your magazine. Continue to publish it from the heart ... as well as from the heart of a sailor.

Duke Wellington
Leslie, Mich.

Mail continued on 68

Mail Buoy continued

Mail continued from 67

After reading your newsletter, we were reminded about the various boat names we have seen, laughed about, and thought how creative. One thing I have noticed about your magazine and newsletter is the fact that it seems to be something that my wife and I share, constantly. It used to be, "Did you hear . . . on NPR?" Now it's, "Did you read

. . . in *Good Old Boat*?" Thanks again for the fun.

Kevin and Carolann Meagher
Raleigh, N.C.

Finally! A magazine that deals with problems that WE have (other than the one that prevents us from buying that 45' schooner). Good Luck!

Scott Fisher
Salem, Mass

I have thought from the very beginning that you are filling an empty niche. A saucy old lady with a new coat of paint, squired around the marina by the man or woman whose labor of love is obvious, always gets a double take from the dock. This is true with me, and I believe it is true with others as well.

Dick Smith
Portland, Tex.

Just a note. I am having trouble getting my copies of *Good Old Boat* away from the folks I've loaned them to. Hmmm, could this be an indication of something?

Dennis Lancaster
Bellingham, Wash.

Up here in the U.P., we get real sentimental around the holidays. Be warned — I am starting to get a warm, cozy feeling about the magazine, especially after my first quick run-through of the January issue! I can see an evolution that makes me certain this magazine is going to be a resounding success. Please congratulate yourselves for such a superb, well-planned effort. No other magazine has better combined the technical, spiritual, and intensely personal sides of sailing in good old boats.

Cyndi Perkins
Houghton, Mich.

I just finished my first run-through of your magazine, and I was pleasantly surprised. I don't expect very much out of magazines that just show up unannounced. As a matter of fact, along with *Good Old Boat* was another boating-type magazine which did not disappoint my rather low expectations, so out it went. Well, I could go on about how favorably impressed I was, but you seem to get these kinds of letters all the time. Anyway, I'll "cut to the chase": sign me up.

Dennis Wallace
West Chester, Pa.

Super publication. I wish I had thought of the idea first. Then I could actually make a living albeit meager at first) doing exactly what I love most. Now for the suggestion: your site should contain a detailed list of articles for all your back and current issues.

Jake McGill
Dover, Mass.



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Jake decided not to wait for us to do this. He's doing it for Good Old Boat and other selected sailing magazines. He can be contacted at jakemcgill@yahoo.com. We'll let you know when the website's up. It will be a great service for us all.

The January issue arrived today and the temptation to ignore my "chores" and read it is even worse than wanting to open my Christmas gifts! (Really!) Flipping through the pages makes the wait even worse . . .

Tom Alley
Youngstown, N.Y.

May you and yours have a happy holiday season. Your magazine made mine.

Bill Lauler
McLean, Va.

This came with a subscription check and a Christmas photo of a lovely Westsail under sail. On the back it was stamped, "Papa Russ's new toy." We posted the photo on our website. By the way, if you haven't seen our new page with the photos we get from readers, check it out at <http://www.goodoldboat.com/photos.html>. Here's the note:

It's a great magazine. I just bought this Westsail 32, hull #47, this year and need all the ideas on upgrading I can get. Your timing's perfect.

Russ Oldfather
Shipshewana, Ind.

The magazine looks great. It gets more professional with every issue. The Garry Cotter pictures (of the *Blackwatch 19* in the Jan. issue) were equivalent to anything I've seen in *WoodenBoat*. I hope you are making ends meet by producing such a quality magazine with little advertising for only \$40 per year.

Peter Edwards
Dover, Mass.

Thanks for the best publication since the demise of *Small Boat Journal*.

Robert McMin
Clifton, Tex.

Send questions and comments to Good Old Boat, 7340 Niagara Lane North, Maple Grove, MN 55311 or by email to jerry@goodoldboat.com. We'll get a response to you prior to the next scheduled publication and promise to respond whether or not your question is selected for publication.

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Many "Good Old Boats" have Atomic 4 engines. But, this engine presents tough problems for prop designers. Most Atomic 4s have a direct drive transmission in forward and a 1.3:1 reduction gear in reverse. The trick is to match the available power with a prop able to convert the torque produced into forward thrust, while still providing some reversing performance. Standard props just don't make it.

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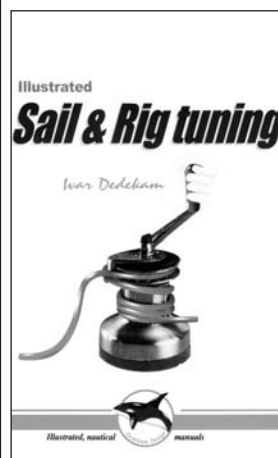
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Wooden mast, spars

Wooden mast built by Ferdinand Nymphious: 32 ft 4 in, fir, tapered with jumpers and diamond stays. This comes from a 1937 cutter, but the mast was put on much later, probably when she burned to the waterline in 1953. Mast needs refinishing, but it is in excellent condition. Also a 14-ft tapered round boom to be sold with the above. Chromed-bronze gooseneck. Jib boom to be sold with above, round. And spars for a Seabird yawl, restorable.

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Looking for

Bonding information

Lin and Larry Pardey are developing a new edition of their boatbuilding book with an updated appendix on adhesives and glues. They want to hear from anyone having difficulties bonding wood to wood and wood to other materials. Photos are appreciated. Information will be kept confidential if you wish.

Send information to
Good Old Boat
for forwarding to the Pardeys

Fantome information

The Schooner *Fantome* was lost in Hurricane Mitch. There were no survivors nor is there an adequate explanation for her loss. Anyone having any information on the loss, rebuilding, maintenance, route plans, or operation of the *Fantome* is urgently requested to contact the author of a book being prepared on the tragedy. Input from passengers, former crew or anyone who observed the *Fantome* during the hurricane or during her previous travels could assist the research in an area where information is extremely difficult to obtain.

Contact Reese Palley
reezpalley@aol.com
305-295-0700 ph
305-295-0414 fx

Deadlines

April newsletter:	March 15
May magazine:	March 1
June newsletter:	May 15
July magazine:	May 1

Deluxe seabags

No storage in your cheap off-shore bag? Or, it's all in the wrong place? Want to match your yacht lettering on the bag? Been looking for someone to put a picture of your "baby" on a tote?

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Mark T. Brown
Editor in
Chief/Webmaster
<http://www.LMMC.com/>

These ads are working!

We've been getting reports that the ads in *Good Old Boat* magazine are doing really well for the sellers. In one case, the product was sold the day the email version of the newsletter was posted. And while he was at it, the seller also sold a few things he didn't have listed! So give it a try. It's spring. There's no better time than now! The simple classified ads (text only) are also posted on our website and in the newsletter. That's a lot of visibility for the ad you get free with your subscription.

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More Pardey seminars

Lin and Larry Pardey have scheduled one more set of programs (this time in conjunction with the Oakland area boat show). An all-day seminar is scheduled for April 13. Cost is \$50. A free evening seminar is scheduled for April 16 on a first-come basis.

For information,
call Gaelyn at Sail:
617-720-8606

Help Save Old Boats

Bone Yard Boats is the only national newsletter listing abandoned, forgotten boats – big, little, sail, or power – all for under \$5,000. Subscribe for \$12. To list a boat, send a photo, info, and asking price plus \$15 per listing to:

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a walking foot machine for canvas & sail at the incredibly low intro price of \$399!

This well built, all metal, straight stitch sewing machine features a high lift powered walking foot for the ultimate in feeding ability. It makes feeding heavy, slippery and even sticky fabrics like window material a breeze. It even **walks over bumps without skipping stitches.**

On most sewing machines the presser foot simply holds the fabric down and all movement is accomplished with a single, bottom feed dog. The Ultrafeed uses a

mechanical "WALKING" presser foot which moves forward and back in time with the feed dog to ensure that the layers of fabric are moving together and easily through the machine.

Since it feeds so well, the stitch length stays very consistent. And, because the walking

foot is designed with a high lift, it better accommodates thick fabric assemblies—as many as 10 layers of canvas.



Cover removed for a close-up of walking foot

Walking Foot Capability at a low, low price! \$399



Its variable stitch length mechanism allows for **very long straight stitches**—up to 6mm. This is great for sewing Sunbrella which tends to needle pucker (the longer the stitch the less the pucker). And, its lever activated reverse makes back stitching easy.

Weighing 42 lbs. the Ultrafeed is built to take the pounding encountered in working with outdoor fabrics and upholstery. And, it stays put—it **won't walk all over the place.**

Power is enhanced by a 1.5 amp motor. A cogged belt and pulley drive system eliminate slippage. This is an amazingly powerful, durable machine. *Great for cottage industries!*

The Ultrafeed is produced and supported by Sailrite, for 30 years a source for canvas tools, products and supplies. That support includes a guidebook with very complete instructions (even learn machine timing) and schematics. There is also a toll free tech/support line.

Use the Ultrafeed for canvas and sail work, upholstery, crafts, draperies, quilting and general sewing.

We are so happy with the Ultrafeed that we've given it a 30 day money back, two year parts & service warranty.



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Last tack

Keep it simple ... and quiet

Second to sailing, bike riding is my favorite recreational activity. I'll give cross-country skiing a *distant* third since I'm so bad at it. In recent years we've seldom had enough snow in Minnesota to hone those skills, and it shows. Sailing and bike riding — and cross-country skiing, too, for that matter — have much in common as pleasurable activities.

These are outdoor activities. The weather is not always pleasant, which is why many choose to stay indoors, but I'll take the occasional squall or blowing snow, and I'll pedal through rain showers and puddles for a chance to observe the changing cloud formations and enjoy fresh air around me.

These are quiet activities. I will always prefer hearing the sounds of nature to the roar of engines.

These are slow activities. The scenery goes by at a speed at which I can take it in, comprehend what I'm seeing, and enjoy it. Why, I wonder, would anyone want to go noisily at 12 or 15 knots (or much faster), when they could go quietly at 5 or 6 knots (or much slower)?

These are activities which can take us to remote areas where other people aren't as likely to be found. I love nothing better than anchoring in a cove that is ours alone for the night and serenely quiet the following morning. But a picnic and a bike can get me


away from civilization, and a pair of cross-country skis can do the same.

These are activities which can be done alone or with a few friends. Unlike tennis and other group activities, I don't have to make advance arrangements to schedule courts and partners. I can pick up and go. Have skis, bike, or boat. Will travel. There's a sense of freedom in the flexibility of it all. And, if I do go alone, there's peace in solitude.

No fancy outfits are required for these activities. I don't own a pair of spandex bike shorts; I can pedal just as fast without them. Cross-country skiing demands warm clothing, but resort wear is

unnecessary and reserved primarily for the downhill skiers. Sailors, too, wear whatever's comfortable or nothing at all (so I hear ... it's way too cold where we

sail to contemplate wearing bathing suits or even shorts most of the time). Obviously there's no dress code in an activity as lax as that! Certainly I'd be out of place in a navy blazer with brass buttons.

All these activities keep those of us who enjoy them healthy, happy, and actively engaged in living life to the fullest. As lifetime sports, they allow us to age gracefully while remaining vigorous and vital. If these activities also bring smiles to our faces and serenity to our souls, who could ask for anything more? 

by Karen Larson

Reflections

by Jim Isbell

The service was over. I was leaving when Hugh ran up to me on the steps of the church.

"Hey, Jim, what are you doing this afternoon?" he asked.

"Nothing special," I replied.

"Well, why don't you come out to the lake with me? We're in a race this afternoon, and we need someone for the foredeck."

"I wouldn't be much use, I have never been on a sailboat in my life. I think I'll pass."

"You really don't have to know anything. We just need a go-fer."

"No. I think I'll just watch the game on TV this afternoon. Thanks for the invite though."

I walked away to the parking lot without another thought on the subject. An hour later, while I was eating lunch, a thought struck me. "I am 33 years old, and I have never been on a sailboat. I could die tomorrow, and I would have never been on a sailboat." My father had died at the age of 55, and I really expected to have the same life span. Urgency gripped me as I called Hugh to see if the invitation was still good.

"Hugh, this is Jim," I started. "Is that foredeck position still open?" He answered in the affirmative.


"Good, where do I meet you?"

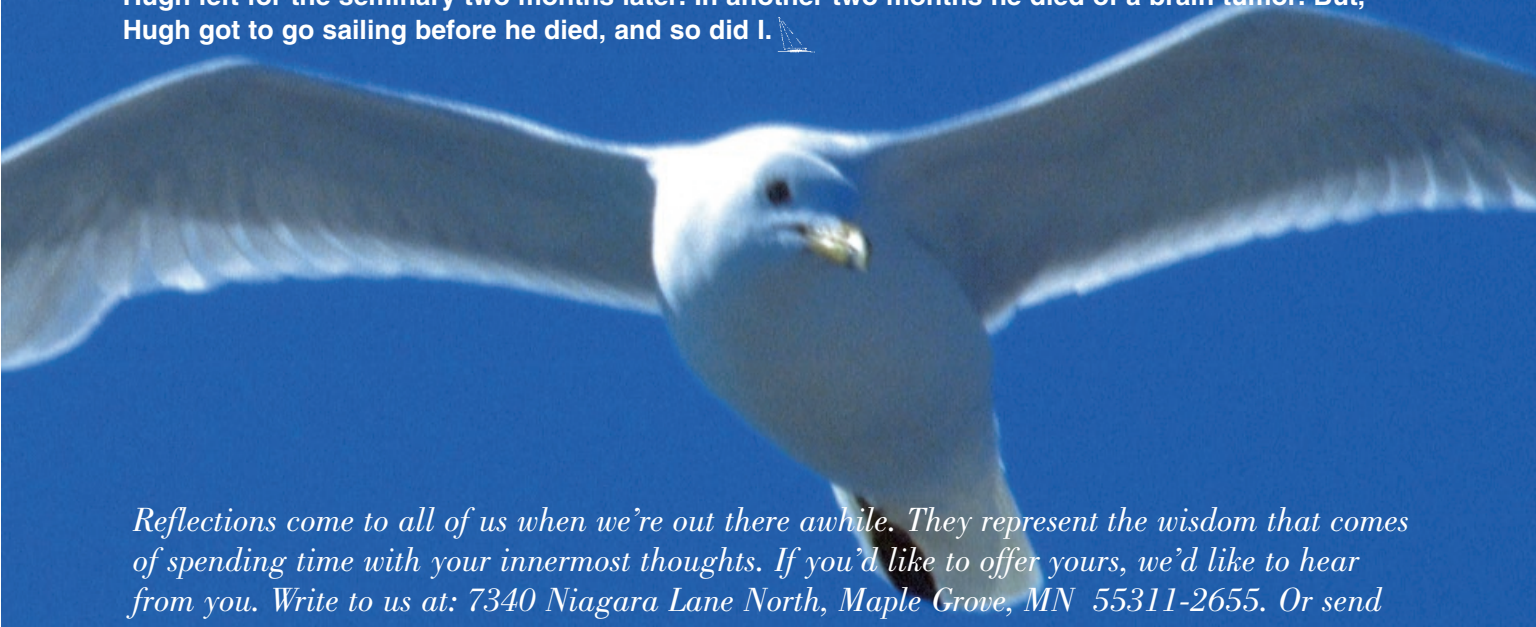
Later that afternoon as we sat in the yacht club after the race, Hugh complained of a headache. It had been a long, hard race in cold, wet conditions, and we had won third place. It was not that third place was so great, it was just that I had never been on a sailboat before AND we won third place. We sat with our feet on the table drinking beer.

"Hugh, I think that men must be crazy," I started the conversation.

"Why?"

"Well, we're sitting here soaking wet, cold, and dead tired, yet we think we just had a good time. If you described that job to someone, then offered to pay them to do it, you probably wouldn't find any takers. But we think we had a good time."

Hugh left for the seminary two months later. In another two months he died of a brain tumor. But, Hugh got to go sailing before he died, and so did I. 



Reflections come to all of us when we're out there awhile. They represent the wisdom that comes of spending time with your innermost thoughts. If you'd like to offer yours, we'd like to hear from you. Write to us at: 7340 Niagara Lane North, Maple Grove, MN 55311-2655. Or send email to: karen@goodoldboat.com.

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- Classics for charter
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