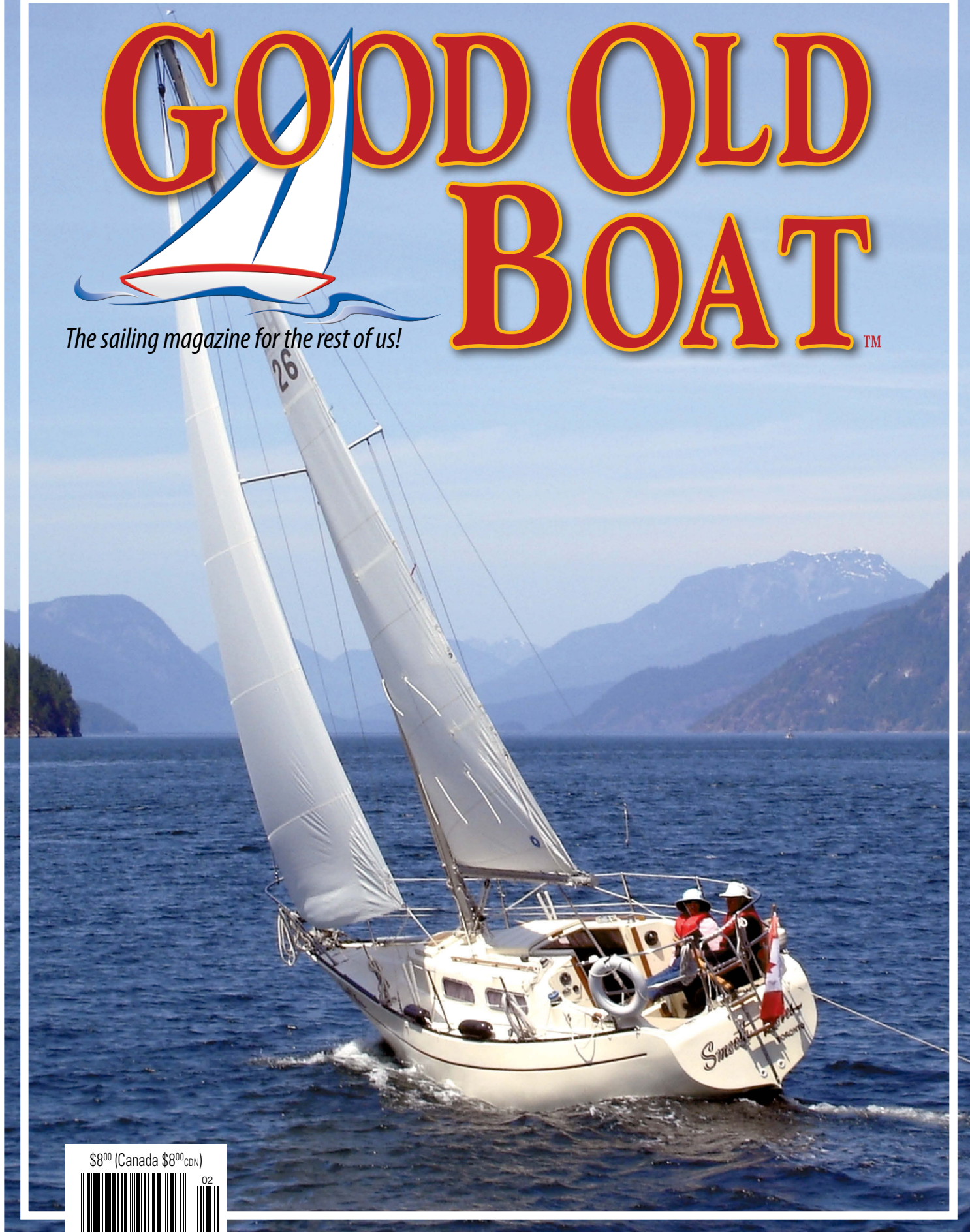


GOOD OLD BOAT™

The sailing magazine for the rest of us!



\$8⁰⁰ (Canada \$8⁰⁰ CDN)



www.goodoldboat.com

Issue 118 January/February 2018



Photo by
Wayne Hamilton

HAMILTON CAN HELP!

HVMAINE HAMILTON MARINE

Many Hamilton Marine employees maintain their own boats. And there is no better teacher than hands-on experience. We know and use the products we sell and can tell you what works best for a given application. If you have questions about a simple repair or a daunting project, give us a call. We can help.

KENT In-Sight Offshore Automatic/Manual Inflatable PFD

USCG APPROVED Type V with Type II Performance

Heavy-duty nylon shell with neoprene comfort collar. In-Sight window shows armed status. Full 35 lbs buoyancy.

LIMITED QUANTITIES!

\$99.99 Reg 149.99

SAVE
\$50!



Orange Order# 752862 Red Order# 761645

GRUNDIGS Grundies Base Layer

High performing merino wool, polyester hollow core, spandex blend. Sizes S-3XL.

Shirt or Pants

\$44.99 each

Search# GRD-GB



INCREDIBLE ROPE DEALS!



up to
50% OFF!

SCAN THE QR CODE TO SEE
OUR ONLINE SPECIALS! NEW
DEALS ADDED REGULARLY!



5200 Marine Adhesive

Available by the cartridge or by the case.

**BEST
SELLER!**

White Order# 123352

Fast Cure White Order# 123360



Heavyweight Bronze Strainers

PERKO

Cast bronze with transparent cylinder. Universal mounting. 316 stainless steel strainer basket. Easy removal and cleaning of the basket. Drain plug in the bottom.

Starting at

\$213.99 Search# PKO-4930



Jabsco Compact Manual Toilet



a xylem brand

All black rubber gaskets are concealed from view for easier cleaning. Plastic base. Pump assembly angled forward for easier stroke. May be easily moved for left hand operation. 3/4" ID hose inlet. 1-1/2" discharge. 17.75"W x 13.19"H x 16.75"D.

JAB-29090-3000 **\$179.99**
Order# 120325

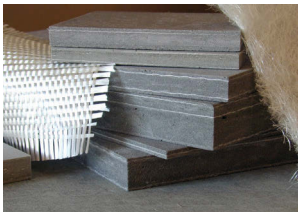


Coosa Composite Panels

High density, polyurethane foam, reinforced with layers of fiberglass strands throughout. Lightweight, non-rotting.

Use in place of plywood!

Search# CSA-

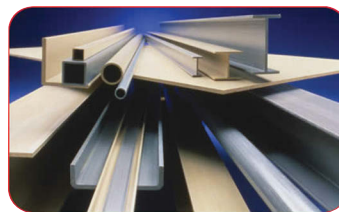


Extren® Fiberglass Structural Shapes & Plates

Lightweight, high-strength, low maintenance, corrosion and UV resistant.

Get the wood out!

Search# SGW-



SYSTEMTHREE EPOXY

State-of-the-art premium marine coatings, adhesives and putties.

Search# SYT-



800-639-2715 • hamiltonmarine.com

PORTLAND ROCKLAND SEARSPORT SOUTHWEST HARBOR JONESPORT MAINE

Typographical errors are unintentional and subject to correction.

GOOD OLD BOAT™

JANUARY/FEBRUARY 2018

Contents

ISSUE 118

For the love of sailboats

Learning experience

16 **Snowbirding, interrupted**

A departure delayed by foul ground and a lee shore

By Shirley Jones

Our readers' boats

24 **Sailors show their colors**

Across the bar

26 **George Harding Cuthbertson**

1929-2017

By Rob Mazza

Gadgets and gizmos

28 **AIS in the hand**

Viewing vessel traffic with a smartphone app

By Jerry Thompson

Cruising memories

38 **A father's gift**

The yen to travel by boat is in her blood

By Katya Golovina

Wider horizons

47 **Value-priced chartering**

An older boat is good enough for a crew of older sailors

By Rob Mazza



On the cover ...

Paul and Arlie Clegg sail *Smooth Moves*, the 1978 Hughes 26 they've owned for 20 years, on a close reach heading north up Lewis Channel, which runs between Cortes and West Redonda Islands in the Salish Sea. Nancy Harrison captured them with her Sony Cybershot DSC-W5.



16

Speaking seriously

Review boat

8 **Niagara 26**

This nimble George Hinterhoeller design excels at club racing

By Robb Lovell

Boat comparison

14 **The Niagara 26 ...**

... and a trio of Canadian contemporaries

By Rob Mazza

Interior improvements

21 **A new galley stove**

A camp stove makes the grade for a lakes-cruising family

By Tom Alley

Living aboard

30 **A cool place to winter aboard**

Intrepid Great Loopers survive in frigid Duluth

By Gary Bratton

Dinghies and tenders

35 **Renovating a RIB**

A dilapidated freebie becomes a respectable tender

By Roger Hughes

Maintenance tasks

40 **Battling with ball valves**

The guardians of the through-hull fell down on the job

By Ed Zacko

What's more

The view from here

2 **Tactile memories**

Boat cards connect good friends and good times with places far and near

By Michael Robertson

Websightings

3 **The CCA on AIS, sign up for *The Dogwatch*, and young Blockheads**

Mail buoy

5 **Perry on design, happy sellers, and alternator woes**

Simple solutions

50 **Portlight-mounted ventilator**

It keeps the air fresh in a closed-up boat

By Matt Koch

52 **A new screen and closure**

Extending the life of an engine's raw-water strainer

By Jim Shell

53 **Boat cards for *Bright Moments***

Lasting social mementos created with imagination and recycled sailcloth

By Linda Hawke

Product profiles

55 **A safer shorepower connection and a mop that soaks up more than dew**

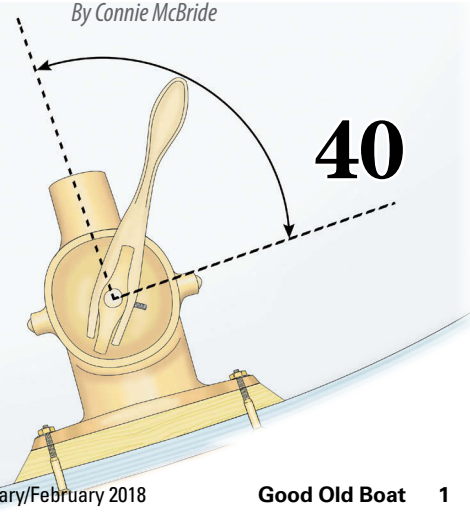
Good old classifieds 56

Reflections

61 **Best bad luck**

The McBride knack for sidestepping misfortune

By Connie McBride



TACTILE MEMORIES

Boat cards connect good friends and good times
with places far and near

BY MICHAEL ROBERTSON

They're a throwback to a time we seem to have moved past, a quaint time when all letters were handwritten and secure communications could be ensured with a wax seal on an envelope. Boat cards are largely unnecessary today — no need for them when you can tap together smartphones with a fellow sailor you just met, or friend each other on Facebook. And yet, boat cards persist, still widely exchanged by sailors, perhaps *because* they are every bit as primitive as harnessing a finicky wind to get where you want to go, very slowly.

And I think there is more to it.

On the docks and in the yards where we meet one another, we are all one, part of a community bound together by an interest in sailing and a devotion to our boats that can be neither understood by our non-sailing friends nor justified to our accountants. What we have in common and want to know about each other has much to do with what we sail and where we sail, little to do with who we are away from our boats.

Hence boat cards. Because I don't know Jana the commercial pilot or Shaun the electrician, a couple who share a home in Burbank. I know only Jana and Shaun from *Mimosa*, a Cal 31 in Marina del Rey — when we met they gave me a card that says as much.

I first learned about boat cards in the mid-1990s, just before I cast off from California to head south aboard my 1980 Newport 27. A friend there to see me off handed me a stack he'd printed for me. They included a grainy picture of my boat along with my boat's name and hailing port and my name and mailing address. I thanked him and tucked the cards away down below with no sense of how much I'd soon come to appreciate having them. In the many months and anchorages that followed, I met as many new people as I'd met before in all of my life. It was a heady time, and were it not for the cards we all exchanged, I'd have had a hard time recalling names and contact info weeks or months later when many of our paths invariably crossed again, and especially when they didn't.


Years after selling that boat and moving ashore, I still retain the pile of boat cards I collected then. They are varied, tangible reminders of people and places and experiences. And while the photos I took back then are treasured representations of places and times, these boat cards are actual artifacts of places and times. They are tiny gifts passed hand to hand, many bearing my notes scribbled on the backs.

I thought of boat cards again in 2010, as Windy and I prepared to jump back into the sailing community with the purchase of *Del Viento*, our third keelboat. Now we had an email address, a blog address, and the kids' names to add to a card. I asked a friend the name of the artist who'd done the



ink-pen drawing of her boat on the card she'd given me. I then contacted the artist, a sailor who loved to draw boats, and sent him some pictures the surveyor had taken of our boat and described the scene I imagined.

"No problem," he said. He followed up with one draft after another, encouraging me to request any tweaks I wanted made; it turns out he did all his drawing on an iPad, so changes were easy to make and the digital file was easy to send. In the end, the payment he requested was a donation, in his name, to the Ronald McDonald House, in any amount I felt was appropriate. "And," he added, "please send me a copy of your card after you've got them printed, I'll add it to my collection. I love to look at them."

"Yeah," I said, "I like boat cards too." 

GOOD OLD BOAT

CEO/CFO/PUBLISHER
Karla Sandness

EDITOR
Michael Robertson
michael_r@goodoldboat.com

SENIOR EDITOR
Jeremy McGear

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

ADVERTISING SALES DIRECTOR
Chuck Koucky
chuck@goodoldboat.com

RESEARCH EDITOR
Dan Spurr

ELECTRONICS EDITOR
David Lynn

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

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

FOUNDERS
Karen Larson and Jerry Powlas

118 – VOLUME 21 NUMBER 1
GOOD OLD BOAT (ISSN 1099-6354; USPS 019327)

PUBLISHED BIMONTHLY BY
Good Old Boat, Inc.

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

SUBSCRIPTION RATES (1, 2, 3 YEARS):
U.S. AND CANADA – \$39.95/\$74.95/\$110^{us}
OVERSEAS – \$49.95/\$95.95/\$138^{us}

© 2018 BY GOOD OLD BOAT, INC.
All rights reserved. Reprinting in whole or part
forbidden except by permission of the publisher.
Printed in the USA.

Editorial submissions are handled with care,
but no liability is accepted. Opinions expressed by the writers
are not necessarily those of *Good Old Boat* magazine.

Periodicals postage paid at Jamestown, ND 58401,
AND AT ADDITIONAL MAILING OFFICES.

POSTMASTER, SEND ADDRESS CHANGES TO:

Good Old Boat, Inc.
1300 Evergreen Dr. N.W.
Jamestown, ND 58401-2204

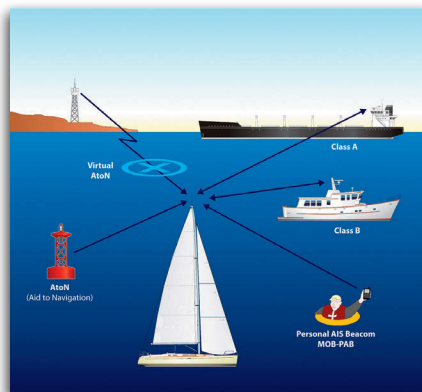
Find us on Facebook
www.facebook.com/goodoldboat



Supporting member of Boating Writers International



News from the world wide web



The CCA explains AIS

On page 28 of this issue, *Good Old Boat* contributor Jerry Thompson brings us a piece on Boat Beacon, a phone or device app that easily and inexpensively delivers many of the advantages of the Automatic Identification System (AIS) for inshore sailors. But Jerry's article is not a full-blown primer on AIS. Need to learn more about AIS in general? The nearly 100-year-old Cruising Club of America (CCA) may be able to help. The club continues to have

a cruising-focused mission, but pledges "to stimulate interest in seamanship, navigation, and handling of small vessels, and to gather and keep on file all information which may be of assistance." Well, that means the organization is of value to all sailors. To wit, the CCA recently made available an excellent article on AIS — really everything you need to know. It's clear, concise, and worthwhile. Check out: www.cruisingclub.org/ais-overview.

Are you on The Dogwatch?



The **Dogwatch**
from Good Old Boat

Dogwatch (n): For sailors: Either of the 2-hour watch periods between 4:00 p.m. and 8:00 p.m. when both watches are up and about to exchange news of happenings on board.
For journalists: The period after a newspaper goes to press when staff stand by in case breaking news warrants a late edition.

If you aren't receiving *Good Old Boat's* monthly digital newsletter full of unique articles, book reviews, news, reader mail, our Sailor of the Month, and more, contact brenda@goodoldboat.com with "Send me The Dogwatch!" in the subject line and she'll make sure it hits your email box too. There's no charge, there's no catch, it's just good stuff.

A bunch of Blockheads

Harken, the US manufacturer of sailboat hardware, recently launched an online youth sailing community. Membership is free and young sailors receive Blockhead stickers and a safety whistle. The goal is to help junior, youth, and high school sailors in Optis, O'pen BICs, and 420s connect with a larger community of youth sailors and better understand the link between better rigging and better performance — using media younger sailors are comfortable with.

Send the young sailors you know to harkenblockheads.com, where they can check out videos of young people showing how to splice 12-strand, whip a line end, and more. Harkenblockheads is also on Facebook and Instagram.



SAIL AWAY WITH EASE



HEADSAIL FURLERS • MAINSAIL FURLERS

CDI has been involved in the sailing industry for over four decades. We stand firmly behind our products, and with unprecedented reliability our furling system will save you time and money. Backed by our comprehensive warranty, you will have peace of mind and more days on the water. Visit Sailcdi.com and sail away with ease.

SAILCDI.COM

photo by @mikeydetemple



Perry on design, happy sellers, and alternator woes

Designer in agreement

That's a well-written piece on the designers of today ("Can You Name That Boat's Designer?," November 2017). I feel your pain. We live in a world where production boats are almost indistinguishable and designer "signature" styles have pretty much disappeared. It's far from the world of yacht design that I chose as my life's work.

I will remain untrendy to the end. My current work is all custom boats, so I have the freedom to still express myself. A good example is my new 43-foot all-carbon-fiber cutter (at right) built by Jim Betts, one of four boats already sold before the build began.

—Bob Perry, Tulalip, Wash.

Article addendum

Just a quick update to my companionway doors article ("A More Companionable Companionway," November 2017). We found with the original design that, when the doors are closed during daylight hours and we are using the plywood inserts rather than the screened inserts, the cabin interior is somewhat dark.

To remedy this, using the plywood inserts as patterns, I made a set of Plexiglas inserts.

The difference in interior lighting is amazing! These were well worth the effort. We still have the wooden inserts to use at night or if the weather is nasty.

—Jim Shroeger, *Good Old Boat* contributor

The perfect buyer

After three years of back-and-forth discussions about putting sweet *Aries* (our 1972 Tartan 34 Classic, #524) up for sale, we got a 1-2 punch of cancer (Grace's) and a broken back (mine) that removed all doubt about our future use of the boat.

I toured some of our Chessie boatyards and got a "yard appraisal" of \$27,500 for *Aries* (don't ask how much we put into her over our 15 years together!). As I was working on



the listing, Allen, our "sailing son," asked if he might bid on the boat that he loved and knew so well — (sigh) — and, at that point, all thoughts of money disappeared and I knew that we had found *Aries*' new owner.

With great joy, Grace and I thanked Allen for his 50 years of being a wonderful son and told him our asking price for *Aries* was one silver dollar. Allen gratefully accepted, but instead of a silver dollar, he had something else in mind.

Allen knows that Barbados has always been a very special place for Grace and me. The \$100 gold mint coin he presented us as payment for *Aries* commemorates the 350th anniversary of Barbados being "discovered" in 1625.

We couldn't be happier that our beloved boat will remain loved and in the family. We are content.

Thank you and your staff (including the recently retired) for giving our family a rich and familiar publication over the years. *Aries* benefited greatly from *Good Old Boat* articles and then, when I founded the Tartan 34 Classic Association in 2004, we found ourselves happily in print with *Good Old Boat*.

Today, in recognition of your importance to our sailing family, I have ordered a new two-year subscription for the new skipper of *Aries*.

—Deane E. Holt, Potomac, Md.

An alternator too far?

That was a great article by David Lynn comparing high-output alternators ("Ramping Up Amps to the Battery Bank," September 2017), but when considering a larger alternator, how many amps are too many? What follows is a horror story about installing too large an alternator.

Our 43-foot Pearson sloop came with a 49-horsepower Phasor diesel engine (a marinized Kubota)





Norm Chamberlain captured Mike Reed's pretty 1974 Islander 36, *Islander*, as she emerged from the fog right next to the Lydia Shoal buoy in Rosario Straits, in Washington's San Juan Islands. Mike adds, "There is not a much better feeling than sailing in fog and arriving exactly where you wanted to be at the correct time."

paired with a 40-amp alternator charging two 12-volt lead-acid batteries. After one wonderfully long afternoon sail, island exploring, and a dinner stop, the engine was just able to start, almost leaving us stranded. I then decided that we needed a larger battery bank and alternator. The larger batteries were easy to purchase and install and I chose a 120-amp alternator from the range of available alternators. It soon self-destructed, then did so again, and again.

This alternator installation involved a voltage regulator and a serpentine-belt kit that included new pulleys for the crankshaft, coolant pump, and alternator. While it was running, I was able to see 80 amps from the 120-amp alternator. However, at different times, this new alternator burned up a fan belt, fell off the engine by breaking its mounting leg (twice), broke the swing arm (multiple times), and sheared off both the swing-arm bolt, which threads into the engine, and the mounting bolt, which holds the alternator to the engine.

Why did this happen? My two thoughts on the matter involve resonance. I noticed the large mass of the 120-amp alternator does not vibrate or rattle in sync with the engine. This alone can cause lots of damage to all the mounting hardware. But further, the alternator itself seems to vibrate. The sheared bolts break cleanly across the bolt shaft. Can a bolt be vibrated into two pieces? After several failures, including breaking two mounting bolts in one day, I have

returned the original 40-amp alternator to service. I have been able to see 40 amps coming from this alternator.

A cruising sailboat needs a dependable charging system, but it also needs a dependable engine. When losing an alternator and belt, I lost engine cooling too; game over. I recommend that one first select battery sizes to match needs and then calculate the amount of charging they need. I recommend the smallest alternator for the job. I do not wish what I have been through upon anyone else.

West Marine's Advisor offers an introduction to selecting a high-output alternator: www.westmarine.com/WestAdvisor/Selecting-an-Alternator.

—John Salinas, Friday Harbor, Wash.

David Lynn responds

I'm sorry to hear of all the problems you had when trying to upgrade your alternator. From a power standpoint, your 49-horsepower engine should have been large enough to handle a 120-amp alternator, especially because the alternator was only generating 80 amps. This would only be a load of around 3 to 4 horsepower, and even if it were running at full output, the load on the engine should only have been about 5 to 6 horsepower.

I suspect, however, that the weight of the 120-amp alternator exceeded the maximum design limits of the alternator mounts on your Kubota/Phasor engine. As you point out, the alternator was vibrating out of sync with the engine, and I agree with your assessment that this would cause all sorts of stress- and vibration-related problems. Phasor apparently no longer markets propulsion engines, but the four diesel engines in the 49- to 50-horsepower range that I could find on the Kubota website all specify an alternator range of between 20 and 60 amps. I think the 120-amp alternator was more than the Kubota was designed to handle.



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

"At least there were no bugs . . ." wrote Todd Bosch when he sent us this photo of his wife, Jill Nordquist, at the helm on a cold day sailing among the Apostle Islands of Lake Superior. The couple sail *Reverie*, their 1979 Dufour 35.



The West Marine Advisor article you reference is quite informative. I agree with your statement that you should first select appropriate battery sizes for your type of boating and then calculate the amount of charging they need. But I would still select the largest alternator my engine — and budget — could handle. The charging time will be less and the batteries will be happier. For example, my Lifeline tech manual states: "For repetitive deep cycling, chargers should have an output current of at least 0.2C (20 amps for a 100 amp-hour battery). If the output current is less than this value, the cycle life of the battery may be negatively affected . . . Lifeline batteries can handle an inrush current as high as 5C."

This means that, for a moderate-size battery bank of 400 amp-hours, the minimum-size alternator would be 80 amps, and the batteries could handle up to 2,000 amps. The recommended charge current will, of course, vary with different battery chemistries, but I still feel that with alternators, more is better.

The difficulty is in determining the maximum-size alternator a particular engine can handle. Unfortunately, the engine and alternator manufacturers don't always provide this specification. If I couldn't get this information from either manufacturer, I'd go with the largest alternator the engine maker offers as an option.

—David Lynn, *Good Old Boat* electronics editor

No toys, please

I look forward to each issue of *Good Old Boat*. The articles are informative and entertaining. I read the magazine for articles related to real boats, not toys. If I wanted to read about RC boats ("A Sailing Model from a Kit," November 2017), I would buy an RC boating magazine. The RC boat pictured in the article is very well done, but this magazine is not the place for it.

—Kennedy Lewis, Ozark, Ala.

Good Old Boat to the rescue

Thank you very much for the article on *Tomfoolery's* misfortune ("Lessons from a Rigging Failure," September 2017). You may have saved my mast. After reading the article, I decided that I had to check my own boat, *Constance*, an Alberg 30. Happily, I can report that the cotter pin securing the bronze clevis pin at the base of the forestay was not corroded and was not a tight fit in the pin. However, one of the two bent legs of the cotter pin had broken off. The other leg broke off immediately upon my first attempt to straighten it. I've since

replaced this cotter pin with another, one that is just a bit small so that there is a bit of room between the cotter pin and the clevis pin. Then I checked the rest of the cotter pins; they were okay.

—Jonathan M. Bresler, Annapolis/Eastport, Md.



Love from a Wild Wind

We enjoy *Good Old Boat* and read it front to back. Some of your DIY articles have helped us in restoring our new boat, a 1983 Rinker-built Wild Wind 20. I'm sending you a photo of Jenn and me out on Kempenfelt Bay, on Lake Simcoe, just north of Toronto. We named our boat *Lost In Tyme* because, except in an article in your magazine back in 2004, we have found very little information on it.

Keep up the good work.

Peter Haughton, Barrie, Ontario

Working around a V-drive

Your review of the Pearson 323 in the November issue mentions the limited access to the stuffing box due to the V-drive configuration. Owners of this and other boats with a V-drive may be able to solve this problem using a basin wrench. Also, the accessory belt, located under the cockpit, can be hard to reach to adjust. If so, a belt-tensioning jack is a big help. I covered using both of these tools in my article, "Reach the Out-of-Reach," in the January 2016 issue of *Good Old Boat*.

—Jim Norris, Centerport, N. Y.

continued on page 54

BY
ROBB LOVELL

Boatless, having sold his Bayfield 23, Brian Casey scratched his sailing itch by racing on friends' boats and caught the racing bug. As a budding racer with a growing family, he wanted a boat that performed well, could be crewed by his growing family, and was small enough to handle shorthanded or singlehanded. Almost 20 years ago, he found his perfect boat, a 1981 Niagara 26.

One day, when volunteering on the committee boat for a regatta at a local yacht club, Brian saw a Niagara 26 bounding over the waves in the pre-start maneuvers. The boat's beautiful lines drew him in and its turn of speed confirmed this was the boat for him.

"It was a light-air day, and this Niagara was moving over the water like the outboard was still running," Brian says. "When the boat tacked and I saw the outboard was tilted up out of the water, I knew right then that this was going to be my next boat."

Brian actively races *Cagair* on the Detroit River at LaSalle Mariners Yacht Club. He and his family have also enjoyed cruises among the islands of Lake Erie.

"I find the boat to have just enough cabin for short-term cruising," he says. "Over the years, we have had a lot of fun racing and cruising *Cagair*."

History

The Niagara 26 was designed by George Hinterhoeller, an Austrian-born immigrant to Canada. He initially found work building powerboats, but his passion was designing and building sailboats in his spare time. What started as a hobby eventually led to his making a major contribution to the Ontario sailboat industry over more than 40 years. George's most famous design is the Shark 24, which, with more than 2,500 hulls built, is one of the most successful one-designs ever. It is regarded as the Canadian equivalent of the J/24.

A cofounder of C&C Yachts, where he ran the production shop, George left in 1975 to form his own company, Hinterhoeller Yachts Ltd., which he ran in St. Catharines, Ontario. He had a knack for designing seaworthy boats that sail very well, and the Niagara 26 is

no exception. There is little doubt that, when George penned the lines of the Niagara 26, he saw the boat as an all-out cruising version of his Shark design. In fact, some of the original brochures and marketing materials bear the name Shark 26.

Approximately 170 Niagara 26s were built in total. Hinterhoeller Yachts

produced the first 69 boats and the remainder were built under license by Goman Boat and later by Halman Manufacturing, both of which were Canadian firms located in Ontario. The production run started in 1976 and continued through the mid-1980s. *Cagair*, our test boat, is a 1981 model from Goman Boat.



Niagara 26

This nimble George Hinterhoeller design
excels at club racing

Design

The Niagara 26 was not designed to any particular rating rule. Rather, Hinterhoeller envisioned a light-displacement hull with a shallow canoe body capable of surfing in the right conditions. Its relatively flat run aft enables fast speeds off the wind. Compare its displacement/LWL (D/L) ratio and sail area/displacement (SA/D) ratio with those of the immensely popular J/24 club racer and you quickly appreciate the Niagara's performance. The Niagara has a slightly lower D/L ratio of 147 versus the J/24's 173, and its SA/D ratio is a tad higher, at 20 versus 19.7.

Neither boat is considered to be particularly beamy, so both rely heavily on ballast for stability. Both draw 4 feet. While the Niagara has a respectable ballast/displacement

ratio of 43 percent, the J/24's is just 30 percent, which helps account for its sensitivity to capsize and its stability when inverted.

Original literature for the Niagara 26 touts its 7/8 rig as being as "fast" as a masthead rig, but easier to manage, as smaller headsails require less energy to trim. Swept-back spreaders give *Cagair* an attractive look of being in motion even while standing still.

Construction

There is little doubt there are differences in construction between boats from the three different builders, but the hull, keel shape, and rig remain the same. The hull of the Niagara 26 is solid hand-laid fiberglass and the hull-to-deck joint is a through-bolted overlap topped for some of its length with a flat track for movable sheet leads.

The deck has a balsa core. Over the last 20 years, Brian has had to make repairs a couple of times where water intrusion around deck hardware had delaminated the deck, causing

soft spots around the mast step and the handrails. Brian cut off the outer fiberglass skin, removed the bad core material, replaced it with new balsa wood, saturated that with epoxy resin, then popped the deck skin he'd cut out back in place. That meant he had to repaint the deck, which gave him the opportunity to apply KiwiGrip non-skid deck coating. It not only looks great, but is a hit with the crew compared to the worn-out original non-skid.

The stainless-steel chainplates are through-bolted to knees glassed into the deck and the hull about a foot aft of the main bulkhead.

The main bulkhead, backed up by a 2 x 4-inch hardwood compression post, supports the deck-stepped mast. Brian has repaired and replaced this area because the base of the compression post, which is in the bilge, rotted over time due to moisture intrusion.

The external lead keel is fastened with stainless-steel bolts to a well-reinforced shallow sump molded into the hull.



Though a mid-1970s design, the Niagara 26 has clean lines that are still attractive today, on facing page. The fractional rig makes managing the sails somewhat easier, without sacrificing speed.

The shrouds are mounted in the middle of the sidedecks, at left, which makes going forward a bit challenging. To address this, Brian replaced *Cagair*'s original hank-on jib with one on a Harken roller furler, which cuts down on the trips needed to the foredeck.

Inside the coamings, which are reasonably high, comfortable for back support, and wide enough to sit on when racing, the cockpit feels secure, above. Twin seat hatches on each side of the cockpit open to the common "basement," which has plenty of storage space. The mainsheet traveler is within easy reach of the helm but separates crew from the helmsman. The lazarette houses the gas tank for the outboard motor.



The low companionway sill makes entry below easy, but the bottom washboard should be kept in place in conditions when the cockpit is likely to ship water, above.

The galley sink, at right, which is to starboard of the companionway, connects to a 14-gallon plastic water tank. The icebox is also on this side. (Brian says the icebox insulation leaves something to be desired.)



On deck

Bulwarks taper from a height of about 2 inches at the bow to flat where tracks are fitted for movable sheet leads. Brian uses this for spinnaker sheets and to open the slot between the main and the 155 percent furling genoa when heavy-air reaching.

The high, wide cabin trunk creates a great sense of space down below,

but the trade-off is narrow sidedecks further obstructed by inboard jibsheet tracks and cars.

The cockpit is spacious for a 26-foot boat. It's divided by the boom-end mainsheet and its traveler, which allows some separation of the helmsman from the crew but makes singlehanded more difficult. Brian overcomes this by steering with a tiller extension.

On some Niagara 26s, the space beneath the cockpit is occupied by an inboard engine with a sail drive. The majority of boats, though, were set up for outboard power.

Aft is a "poop deck," under which is a large lazarette with a cutout in the transom for the outboard motor. On *Cagair*, that motor is a new 4-stroke Mercury 9.8. It pushes the boat well

Comments from Niagara 26 owners

I owned a Hinterhoeller-built Niagara 26 built in 1979 for about 12 years before upgrading to a Viking 33. The Niagara is a great sailing boat in light to moderate air. It is easy to sail singlehanded, and has enough room to accommodate a couple for a weekend.

The balsa-cored deck is an issue with every one I've seen. My entire cabintop had to be recored and re-fiberglassed, along with areas underneath the stanchion bases. The support beneath the deck-stepped mast consisted of two pieces of 3/4-inch plywood laminated together and covered with vinyl. It rotted at the bottom and caused the deck to compress under the weight of the mast. I replaced this with a piece of solid white oak and resolved the problem. Overall, it was a great sailing boat and a fantastic club racer that earned us many club championships.

—John Vandereerden, Windsor, Ontario

I've owned a 1982 Niagara 26 since 2001. Before then, I owned a Niagara 30, which is essentially the same boat with an afterdeck and reverse transom and a masthead rig. The 30 was a great boat, and really fast. The 26 is also a great boat. It's pretty fast on all points of sail and in all wind strengths. It does very well in races and is also a comfortable cruising boat for two short people.

It handles very well and is especially at home in heavy weather. We have never reefed the main. The boat seems to be very well built. It is still solid after 35 years of hard sailing.

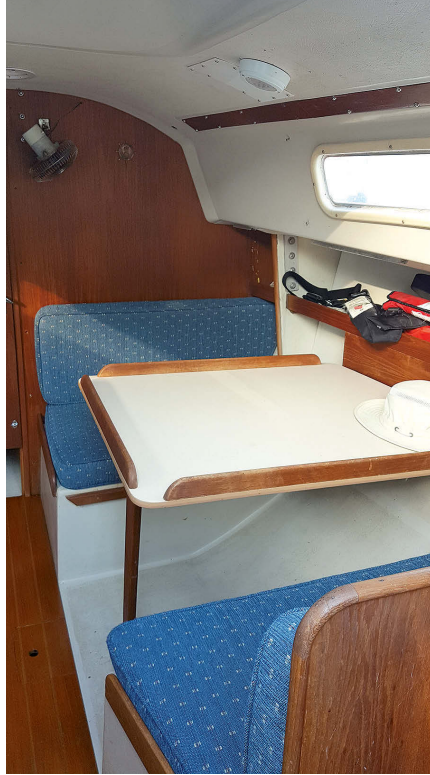
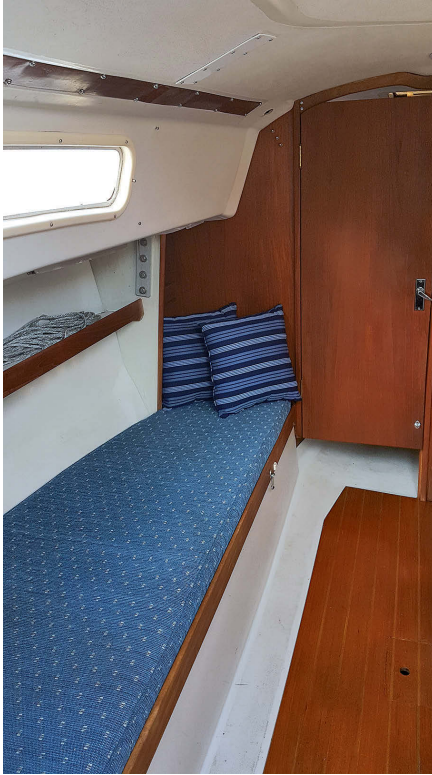
What I like most about the boat is its appearance. It has lovely lines. What I like least about the boat is the outboard motor. It spoils the lines and is a nuisance. The boat originally had an inboard sail drive, but the previous owner had it removed. I thought about putting it back, but that would have been very difficult.

The only problem I've had with the boat has been deck leaks. Because of the headliner, it's hard to tell where the leaks are coming from. I had the deck repainted (badly) a few years ago and the person who did the job removed all the fittings and may have not sealed them properly when he put them back.

I would highly recommend the boat to anyone looking for a fast, comfortable, pretty boat that is a pleasure to race and enjoyable to cruise.

—Andy Thomson, Belleville, Ontario

I bought a Niagara 26 in 1998 and kept it for eight years. I felt the boat was a lot of fun and I used it mainly for club racing. However, I did take the boat out for pleasure cruising and vacations occasionally. The longest



The layout of the saloon is simple, with a long settee to port, far left, and a dinette to starboard, at left. At 6 feet 2 inches, Brian says he can easily stretch out for a nap or for the night. Shelves on either side provide convenient catchalls for gear.

and does not require a long reach back to operate the controls. Even the large 9.8 motor has plenty of clearance to completely swing up out of the water when sailing. The lazarette houses the gas tank with room to spare for other deck gear.

The transom-hung rudder is semi-balanced. Several owners say they have had gudgeons and pintles fail.

The solution has been to replace the gudgeons and pintles with larger ones and, in some cases, to beef up the attachment points on the transom.

Accommodations

Easy entry to the interior is provided by the large companionway with its low sill, and the opening lets plenty of light and air into the cabin.

The interior of the Niagara is simple and straightforward, a blend of clean white fiberglass surfaces accented with enough teak to make the cabin feel traditional without being dark. A fiberglass floor pan forms the cabin sole as well as bases for the settees and other furniture. The bilge, which is deep enough to accommodate a good automatic bilge pump, is covered with a teak-and-holly board. Bulkheads are marine-grade plywood covered with an attractive teak veneer.

A liner creates a clean and attractive overhead, and the manufacturer thoughtfully provided panels that can be removed to give access to deck hardware and wiring.

A handsome teak storage box forms the sole step in the companionway. Although the Niagara 26 does not have standing headroom (it tapers from about 5 feet 7 inches to 5 feet 2 inches), moving forward and aft is reasonably

cruise I took was 15 days. All of my sailing was done on Chesapeake Bay and its tributaries. The best sailing conditions were close-hauled to close reaching in 10- to 15-knot winds with a mainsail and a 100 percent jib.

One of the problems I had with the boat was a mushy foredeck. I cut it out and removed the balsa core and reassembled the foredeck. Another problem was the starboard cabin window that leaked. It was glued in place and the forward corner lifted out of the hull indentation that contained the window. Unable to find anyone who could repair this or even advise me how to repair it, I had to fabricate a stainless-steel frame for the outside of the window and bolt it in place. It was less than beautiful, but it was effective.

—Gary Hensley, Baltimore, Maryland

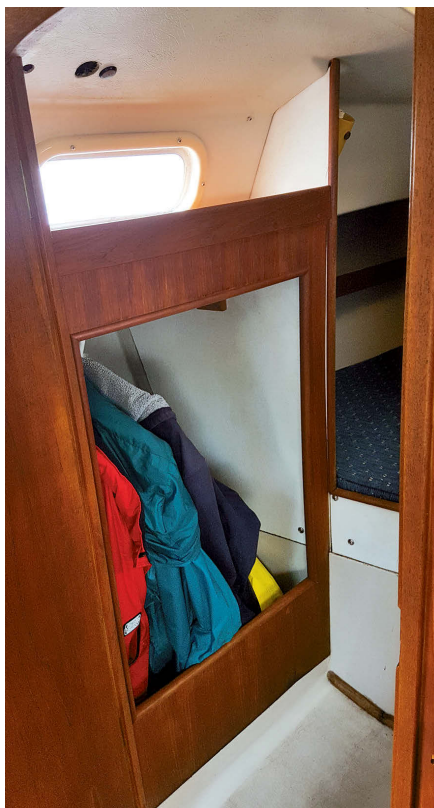
My wife, Judy, and I purchased Niagara 26 #44 from the original owner in 1987 and are still actively sailing it 30 years later. Ours was built at Hinterhoeller in St. Catharines in 1980. We use it mainly for club PHRF racing and a summer cruise or two on Lake Erie. What I like best is that it's a great sailing boat. It's really responsive and sails like a big dinghy, while feeling solid and predictable in a blow. The cabin seemed a little congested, so the stove was the first thing to go,

followed by the dinette table. We replaced the table with a much smaller hinged one and this really opened up the cabin. The icebox is very good. The dimensions of the Niagara 26 make it a good candidate for trailering, so we had a highway trailer built for ours right after purchase. We lift the boat on and off, but the trailer makes maintenance much simpler and opens up affordable indoor storage options. If you want a 26-foot cottage with standing headroom, then look at other options. If the pure joy of sailing is your thing, then the Niagara 26 is a very rewarding boat to own.

—Hugh Liebner, Erië, Ontario

We owned a Niagara 26 for 28 years and enjoyed every minute of it. We raced it and raised three kids and several dogs on it. Build quality: no real issues. The balsa core in the deck could get a little rotten after a few years. Some builders put stainless-steel stanchions in cast-aluminum bases. Bad! They fused together. We could not remove the stanchions for winter storage. What we liked most: good looks, great sailing. Dislikes: no anchor locker in the bow and no standing headroom for persons of average height. But then, if you raised the cabintop she wouldn't look as good, would she?

—Dan Sargeant, Lunenburg, Nova Scotia



Foul weather gear stows in the small hanging locker opposite the head, at left. The V-berth accommodates two adults, but it's best if they like each other, at right.



easy. However, a stay on board longer than a weekend could become tough on the back.

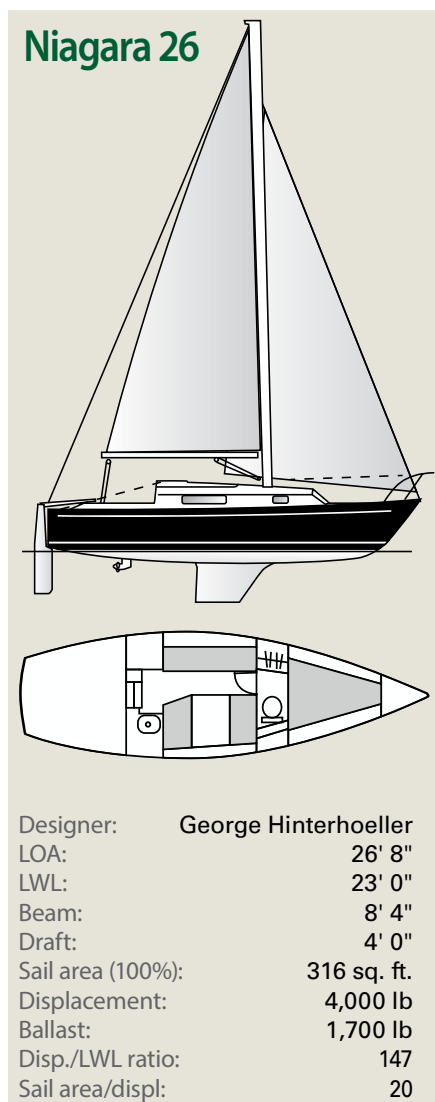
The galley is split either side of the companionway, a design that allows good ventilation via the companionway for cooking and also allows the cook to stand up when the companionway hatch is open — weather permitting. On the port side, there is a small counter with an alcohol stove and, beneath it, a handy set of small teak drawers.

The forward cabin on *Cagair* has a plumbed portable toilet, which replaced the marine head and holding tank from the factory, and a hanging locker. A teak door on the main bulkhead allows for some privacy in the head as well as separating the V-berth from the main cabin. A clear hatch provides ventilation and light.

Several early models were delivered with twin port/starboard settees in the main cabin and a fold-down bulkhead-mounted table.

Under way

Our test sail was on a beautiful early fall day on the Detroit River in a light breeze of about 5 to 10 knots. I thought these conditions would be perfect for the Niagara 26 to confirm its reputation as a light-air performer.



Brian pulled *Cagair's* outboard to life and we headed out of the club's north basin, wasting no time hoisting the mainsail. Clearing the edge of the channel, we bore off to a reach down the river. We quickly rolled out the genoa and *Cagair* sprang to life. The boat moves easily and is very

responsive to the tiller. Even in this relatively light wind, *Cagair* was both nimble and surprisingly fast. She struck me as very responsive, and she truly does move very well in light air.


We were only two on the boat, and we ran her through her paces on nearly every point of sail. The cockpit lent itself to easy boathandling. At 68, Brian both shorthands and solo sails and races the boat with relative ease. By adding roller furling and running all the control lines to the cockpit, he has ensured he will be sailing and racing *Cagair* for years to come. In gusts, the boat accelerated quickly, and her GPS noted speed over the ground of up to 6 knots even in the light air of the afternoon.

While the Niagara 26 is well-known as a light-air performer, Brian says *Cagair* holds her own very nicely in a blow as well, when properly reefed. Brian has a single-line reefing system on the mainsail. The Niagara does have a large mainsail, so when the wind pipes up, Brian starts by reefing the main and then shortens the headsail as necessary.

Perhaps most important, the Niagara 26 is a joy to sail. The boat is balanced, it moves well, and it is also forgiving and relatively easy to get moving well.

Conclusions

Many Niagara 26s are actively raced in beer-can club racing, with a concentration of boats in the Great Lakes region, where they were built. The boat is a manageable size for shorthanded sailing but the cockpit is large enough for entertaining four or more guests when sailing. The interior is simple and well thought out, with just enough room for light cruising.

A survey of the market revealed several Niagara 26s for sale at prices ranging from \$6,800 to \$13,500 for a particularly well-restored example. That the build quality is high on these boats is evident from how well most of them have held up through 40 or more years of sailing and racing. What is also evident is that the boats for sale appear to be well loved and cared for. 



Cagair can be sailed from the cockpit because Brian has led all the halyards and control lines aft to Spinlock clutches and a pair of Lewmar winches on the cabintop. The headsail and spinnaker are trimmed with Lewmar winches mounted on the cockpit coamings. The setup on the port side is similar.

Robb Lovell grew up sailing on Lake Huron aboard his family's Endeavor 40, where he caught the sailing bug. That was about 20 boats ago. Robb enjoys buying and restoring boats and is an avid racer and cruiser based out of LaSalle Mariners Yacht Club in Ontario. He currently races on a Cal 9.2 named Jade, but owns three other sailboats and a tugboat . . . yes, he has a problem!



Portlights

888-437-5512
 nfm@newfoundmetals.com
 NewFoundMetals.com



SMALL CRAFT ADVISOR

Subscribe to the print or digital magazine:
 800-979-1930
www.SmallCraftAdvisor.com

The Niagara 26 ...

...and a trio of Canadian contemporaries

BY ROB MAZZA

George Hinterhoeller, with his company, Hinterhoeller Yachts, was one of the four founding members of C&C Yachts in 1969. By 1975, George had had enough of the politics and corporate life of a public company. After a year of being the president, he parted company with C&C to re-establish his own company with a new product line he called

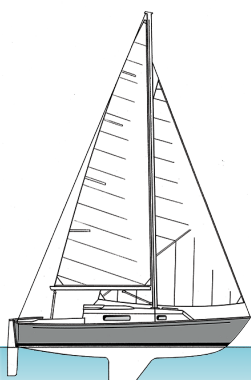
Niagara, reflecting his location in the Niagara Peninsula of Ontario.

The first in this new series of boats was the Niagara 26, which he designed himself using the concept of light weight and a long waterline he had pioneered with the 24-foot Shark in 1959. The 26 was soon followed by larger Niagaras designed by either German Frers or Mark Ellis, and

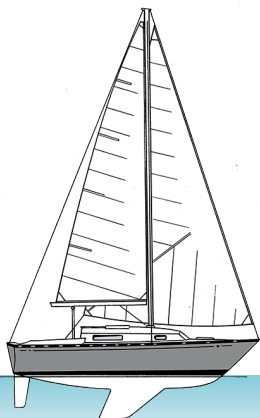
of course the iconic Ellis-designed Nonsuch in a wide variety of sizes.

By 1975 there was a number of competing boatbuilders in Central Canada, the largest of them being C&C Yachts. Dick Steffen of Mirage Yachts and Hans Tanzer of Tanzer Industries, both near Montreal, were also gaining prominence in the still-growing sailboat market. After entering

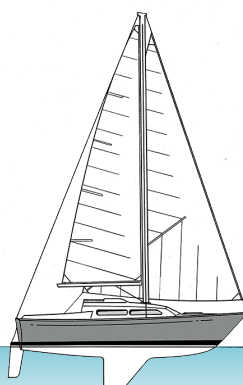
Niagara 26



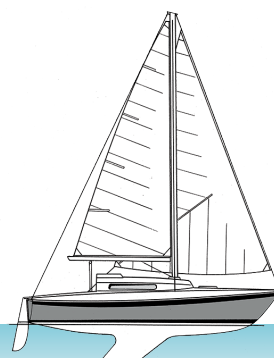
C&C 26



Mirage 26



Tanzer 26



Niagara 26

C&C 26

Mirage 26

Tanzer 26

LOA	26' 8"	25' 5"	26' 2"	26' 4"
LWL	23' 0"	20' 5"	21' 8"	22' 6"
Beam	8' 4"	10' 5"	9' 3"	8' 8"
Draft	4' 0"	4' 7"	4' 6"	3' 10"
Displacement	4,000 lb	5,400 lb	4,770 lb	4,350 lb
Ballast	1,700 lb	2,040 lb	2,050 lb	1,950 lb
LOA/LWL	1.16	1.24	1.21	1.17
Beam/LWL	.36	.51	.43	.39
Disp./LWL	147	277	209	170
Bal./disp.	.43	.38	.43	.45
Sail area (100%)	316 sq. ft.	331 sq. ft.	313 sq. ft.	289 sq. ft.
SA/disp.	20.0	17.2	17.6	17.3
Capsize number	2.1	2.4	2.2	2.1
Comfort ratio	15.2	16.7	17	16
Year first built	1976	1976	1976	1976
Designer	George Hinterhoeller	C&C Design Group	Robert Perry	Johann Tanzer
Builder	Hinterhoeller Yachts	C&C Yachts	Mirage Yachts	Tanzer Industries

the business as a Hinterhoeller dealer, Steffen started building the Cuthbertson & Cassian-designed Mirage 24. But the creation of C&C Yachts cut off that design avenue, so Steffen turned to West Coast designer Bob Perry to meet his design needs with his Mirage 26. Also in 1976, C&C produced its own 26-footer, the C&C 26. For the sake of full disclosure, I should mention that I was the project manager for this boat in the C&C design office.

On the assumption that all politics is local, it can probably be argued that all competition is also local, so it's interesting to compare and contrast these four Canadian 26-footers, all of which made their debuts in 1976. I could not resist the remarkable coincidence of all four boats from local builders being introduced in the same year.

Of the four boats featured, the Niagara has the lightest displacement, 4,000 pounds, and the longest waterline length, 23 feet, resulting in the lowest displacement/length (D/L) ratio of a very competitive 147. Combined with a sail area of 316 square feet, that light displacement produces a very competitive sail area/displacement (SA/D) ratio of 20.0.

The next-most-competitive boat in that regard is the Tanzer, with its displacement of 4,350 pounds on a waterline of 22 feet 6 inches giving it a D/L ratio of 170. A smaller sail area of 289 square feet gives it a lower, but still competitive, SA/D ratio of 17.3. The

Mirage is a little more conservative, with its heavier displacement of 4,770 pounds on a shorter waterline of 21 feet 8 inches yielding a higher, but still competitive, D/L ratio of 209. Her sail area of 313 square feet produces an SA/D ratio of 17.6, almost equal to the Tanzer's.


The odd man out in this group is the C&C 26. Despite being the project manager for this boat, with the benefit of hindsight, I am scratching my head at the boat that evolved. In my design comparison on the Pearson 323 (November 2017), I pointed out the influence of the International Offshore Rule (IOR), introduced just a few years earlier, on designs of this period. Here we see the exaggerated beam of 10 feet 5 inches — a full 2 feet wider than the Niagara 26 — and the consequent pinched ends so typical of IOR designs. (This wider beam does contribute to increased interior volume.) The C&C is also the shortest of this quartet of 26-footers, actually being closer to 25 feet, while the other three boats are all over 26 feet. This shorter length is most evident in its LWL of only 20 feet 5 inches, a full 2 feet 7 inches shorter than the Niagara. (Sailboatdata.com showed a waterline length of 23 feet 5 inches, which fit in well with the other boats featured but, after further research, I found that the actual LWL is in fact 20 feet 5 inches.) This shorter LWL, combined with the heaviest displacement of 5,400 pounds, results

in a somewhat conservative D/L ratio of 277. The sail area of 331 square feet (the largest in the group) produces an SA/D ratio of 17.2, still somewhat in line with the Tanzer and the Mirage.

The Niagara and the Tanzer have transom-hung rudders. On the Mirage, the rudder is recessed into the transom, a feature originally developed by Cuthbertson & Cassian on the Mirage 24. The C&C is the only one of the four to have a cantilevered spade.

Hinterhoeller's 26 is the only one of the four with a fractional rig, another development from his earlier Shark design and a harbinger of what would appear on the J/24 the very next year.

All of these boats have capsizes numbers above 2, which is not ideal, but not uncommon for smaller boats with lighter displacements. The C&C has the highest capsizes number of 2.4, due primarily to her wide beam but partially offset by her heavier displacement. Comfort ratios are also low, again not atypical for smaller boats.

In the mid-1970s, sailboat production was approaching the high-water mark in North America, and it's intriguing to look at these four 26-footers, all produced by Canadian builders in the same year. 

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



MY-TEAM TALKS

THE ULTIMATE ON-BOARD COMMUNICATIONS SYSTEM
 COMPLETELY WIRELESS, BLUETOOTH • FULL-TIME, HANDSFREE, MULTI-PLEX
 EXPANDABLE TO 4 USERS (FULL CONFERENCING)
 RANGE UP TO 900 METERS (980 YARDS)
 COMPATIBLE WITH CELL PHONES, i-POD OR GPS
 LITHIUM RE-CHARGABLE BATTERY (10 HR TALK TIME)

CRUISINGSOLUTIONS.COM • INFO@CRUISINGSOLUTIONS.COM
1 (800) 460-7451
COST EFFECTIVE EQUIPMENT FOR LIFE AT SEA



SPEEDSEAL Life

Award winning Bearing Encased*

DOUBLE IMPELLER LIFE

Upgrade
 kits available
800 675 1105
www.speedseal.com

RUN-DRY SAFETY
 now on military,
 rescue & lifeboats

Snowbirding, interrupted

A departure delayed by foul ground and a lee shore

BY SHIRLEY JONES

Following years of laid-back dreaming, of soaking up from books, magazines, and YouTube the wisdom and experience of voyagers who'd gone before us, and of working hard to make *Ariose*, our Alberg 30, as seaworthy as we knew how, my partner, Tim Martens, and I cast off for our

cruise from Canada to the Bahamas. Yet despite all of our hard work and acquired wisdom, we departed with little more than casual northern Ontario freshwater lake sailing under our keel. We knew our voyage would be an intensive immersion course. What we didn't know was that the first learning

opportunity would hit so soon and with such impact.

While the rest of the fleet — the sensible ones, some would say — had already either headed south or been hauled out, we were craning *Ariose* into Lake Ontario, feeling as though we were going against the current.



Tim's face, main photo, shows relief that he and Shirley had made it back to Kingston after their adventure and worry about the damage they might find when they hauled *Ariose*. Before their departure, Shirley applied the finishing touches to *Ariose's* belly, blissfully unaware that the antifouling paint would be short-lived, at left. They took time to pose while in the final stages of packing *Ariose*, at right.



After anchoring *Ariose* what they thought was a safe distance off Main Duck Island, at left, Shirley and Tim went ashore to explore the dramatic limestone scenery, above.

After a week dockside, we'd completed most of the essentials on our Pre-departure list. Some remaining items, like trying out our new VHF radio and getting comfortable with our tablet and its electronic chart application, we moved to our Immediate Under Way list. Many other nonessentials got shifted to our Someday list, the one we planned to tackle once we bored of palm-fringed beaches. As we stowed our mountains of gear, we felt particularly smug about our self-sufficiency. We had ample food provisions — enough for an Atlantic crossing should we overshoot the Bahamas, we joked — and a thorough inventory of spare parts. We were as ready as we were going to be for our maiden voyage.

Early-November days offer only 10 hours of light. It would take all of that to motor from Kingston, Ontario, to the canal's entrance in Oswego, New York, so we had planned to stop near the midpoint of the crossing at Main Duck Island, where we were assured we could dock in a protected inlet. Because we would be transiting the New York State Canal System, *Ariose's* mast was secured on deck.

The lake was uncharacteristically calm, and this was our first experience being out of sight of land while on *Ariose*. What a rush we felt upon seeing Main Duck Island rising from the horizon exactly where it was supposed to be. It was a pleasing and confidence-building start to our journey.

We entered the island's marked channel and approached cautiously,

aware that lake levels were low. We slowed to a drift, and were puzzling over what our depth meter was telling us when we felt *Ariose* nudge to a stop on the soft bottom of the inlet, just shy of the dock. Folks in a shoal-draft boat hopped into their dinghy and helped tug us back into deeper water.

Grounded on day one of our adventure! This was a rite of passage, we thought, to be survived with lessons learned but no hardship. Surely we would enjoy smooth sailing from here on. We were wrong.

A questionable anchorage

A quick look at the chart clearly showed that most of the island's perimeter was inhospitable to anchoring. The sun would set shortly, so there was not enough time to make it to the mainland. We had no choice but to disregard the "don't anchor at Main Duck" advice we'd been given. We chose a partially protected bay near the inlet's marked entrance. A gentle offshore breeze was encouraging. The rocky shoreline wasn't. We anchored. The water was clear and we were relieved to spot our plow lodged securely in a crevice. Then we paid out a generous amount of chain rode just to be sure.

Having expected to spend the night secured to a dock, we hadn't taken note of the extended weather forecast, but we thought we remembered that the wind was forecast to change. Far from cell towers, we had no internet connection to check. But mindful that any change in the wind direction would cause us to swing, Tim rowed the

dinghy in a circle around our anchor, using a makeshift lead line to be sure that we would have plenty of water under us. It appeared we would be fine.

After hanging out a bit to be sure we were holding, we rowed to land and explored the gorgeous dramatic shoreline of Main Duck Island. The calm water mirrored our serene mood. Here we were, finally off on our long-planned adventure, buoyed by the self-assurance that had grown with each accomplishment over the past few months, and confident that we were securely anchored for our first night.

Nevertheless, we stayed hyper-vigilant, and got up several times during the night to check on our position. I use the phrase "check on our position" rather loosely. We didn't yet know how to use our GPS-based anchor-drag alarm, nor did we even know that our new electronic charting app had a track feature that would give us a clear visual of the boat's movement. We just poked our heads out and relied on our eyes, our rather unreliable eyes.

By the wee hours of the morning, the wind was up and *Ariose* had begun to rock and roll. We repeatedly shined our spotlight toward shore and wondered whether we were any closer than the time before. When we thought we were, we attributed that to having swung around the anchor. The short bursts of scraping sounds? Must be the chain sliding along the bottom as we pivoted. What really concerned us was the 180-degree wind shift that left us anchored off a lee shore. We returned to bed with a growing unease.

Trouble

As the sky brightened, I got up, donned my foul weather gear, and headed out into the cold driving rain. I was surprised to see the boat that had helped us the previous day already under way.

Rolling waves broke on the shore and our surroundings looked nothing like the calm bay we had anchored in the night before.

I called below to Tim, cozy in the V-berth, “Tim, I think we’re too close.” As the words left my mouth, I watched the shore close in on us. “Tim, we’re dragging!” The gut-wrenching crunch of keel on limestone jolted us into action. Half-clothed, Tim leapt into the cockpit and dove for the ignition, key in hand.

If there is a more disheartening sound in all the world than that made by the bottom of the boat you have lovingly restored grinding against rock, it’s the raspy metal-on-metal clunks of a cheap starter disintegrating. We had no motor. We could raise no sails. The gravity of our situation hit stone-solid.

We needed help. The vessel I’d watched leave was just rounding the island and would still be within VHF range. I grabbed the mic and stopped. My radio-operator lessons were fresh, and the sample script I had prepared for emergencies was close at hand, but I had never actually operated a radio and did not even know how to turn it on. “Familiarize selves with radio” was on our Immediate Under Way list that we’d not gotten to immediately. While being tossed in the cabin, I found the manual, my reading glasses, and the relevant instructions, and was able to issue the call.

There was no response.

Meanwhile, Tim had taken to our dinghy and was preparing to take out the kedge. I left the radio and met him at the bow. As *Ariose* bucked under me, I secured our secondary anchor to its chain and passed the anchor to Tim — much easier said than done.

As well as rowing against the wind and waves, Tim struggled against the

weight of the chain pulling him back. With superhuman effort, he made progress and dropped the hook. I heaved hopefully on the rode to pull *Ariose* out, even a little bit, but succeeded only in hauling the anchor in. We tried again. No luck. We switched from chain

“With each wave, *Ariose* rose up and crashed down, sometimes with little more than some scraping, but often with a hard jolt . . .”

to 200 feet of rope. Tim could now set the kedge out farther. Still no luck. Repeat. Again no luck. The anchor would not catch. Cursing didn’t help. Pleading didn’t, either. With each wave, *Ariose* rose up and crashed down, sometimes with little more than some scraping, but often with a hard jolt that sent a shuddering quake through her hull and up my vertebrae. I feared that *Ariose* would soon be destroyed.

The situation now felt more desperate than when I had issued the pan-pan earlier. Time for a mayday call. But I still wasn’t sure that I was using the radio correctly. After broadcasting my mayday message, I tried the automated digital selective calling (DSC) distress-call function. I did not



Shirley and Tim bid the Coast Guard boat a grateful goodbye.

get a response. Drenched and shaking from cold and adrenaline, I concentrated again on the pages of the instruction manual and

realized that, before I could use the DSC distress function, I needed to enter our MMSI number. Entering the number took only minutes, but it felt like I spent hours scrolling through numbers to enter each of the nine digits the first time, and then again for confirmation.

Then it hit me. With our mast down for our canal transit, our mast-mounted antenna was only just above deck level and aimed horizontally. What kind of VHF range could we possibly have?

No help in sight

We had filed a float plan with my brother, instructing him to alert search and rescue if he hadn’t heard from us by noon Saturday. It was now about 8:30 a.m. Thursday, so it would be more than 48 hours before anyone would begin looking for us. Soaking wet. Exhausted. Cold. Discouraged. Even as our spirits plummeted, we realized that, although we might lose *Ariose*, we would be fine. That was what was important.

Help wasn’t coming. It was time to demonstrate the self-sufficiency that we were so proud of. We needed to replace the starter motor. Tim dug through our overstuffed lockers and found the spare and the tools he’d need to do the job. I wasn’t hopeful. It takes a gymnast to work on our Alberg 30’s engine in optimal conditions, and here we were heaving and crashing. Yet doing something — anything — felt better than doing nothing. Tim got to work.

I admit that Tim’s stubborn streak has at times irked me. Now I regarded his perseverance with newfound admiration as he contorted himself into the engine compartment, patiently retrieving errant tools and bolts from the dark icy water in the bilge.

At about that time our VHF cracked to life. It was the Coast Guard, transmitting about our situation! But ... wait, the coordinates they broadcast weren't ours. Could there be another sailboat in distress out here? My hopes sank. Moments later, they broadcast a correction. It was us! We needed only to make it through a few more hours before help would arrive.

Yet only moments later, a C-130 Hercules buzzed us at low altitude and then circled. A helicopter arrived shortly after and dropped three search-and-rescue responders on shore. We felt as though we were on a movie set, and were mortified by what seemed like an over-response. After all, it was only our boat at risk, not our lives. We rowed ashore to save the three guys from having to wade out to us. They were calm and comforting and even showed a sense of humor as they assessed the situation. They reassured us that we had done the right thing in issuing the distress call, and alleviated our embarrassment by letting us know that, fortuitously, a training operation had been under way when our call came in. With aircraft already in the air, it was easy to switch to an actual rescue mission. They informed us that a Coast Guard vessel was now on its way to tow us off. Our tension eased. We returned to *Ariose* and Tim got back to work on exchanging the starters.

The rescue vessel arrived and, with a bit of effort, pulled us into deeper water, where we dropped anchor to take stock of our situation. It felt glorious to be afloat again. We pumped out the water that *Ariose* had collected from rain

and waves, and continued to check our bilge, relieved to find that it remained dry. Just as I was weighing anchor so we could get the tow under way, Tim popped out of the companionway and proudly announced that the replacement starter was in. Really? How the heck did he pull that off? He turned the key and the rumble of *Ariose's* Yanmar engine was music to our ears.

For five solemn hours we motored to Kingston and back to the marina we had departed from 24 hours before.

Repairs and reflection

The next day, we held our breath as *Ariose* was craned out, hoping beyond hope that there would be little more than cosmetic damage. We had a local fiberglass-repair expert present to offer advice, but it was obvious even to our inexperienced eyes that *Ariose's* injuries were substantial. Her rudder had split and its bottom edge was smashed. Her keel was ground down along its full length, with a few holes in its seam. A fist-sized chunk of limestone embedded in the rudder became the first souvenir of our voyage. A couple of hours pounding on rock had taken its toll, but our well-built 1969 Alberg had held her own. This story might have had a different ending with a lesser boat.

Although it now seemed likely that we would have to pause our adventure until the next year, we were determined to exhaust all possibilities

A rock had become lodged in her rudder, at right. The keel was worn to the seam, below left, and the rudder was split along the bottom, below right.

before admitting defeat. Winter was fast approaching and the canals we needed to transit to get south would be closed in two weeks. Our next few days were a whirlwind of obtaining quotes on repairs, dealing with the insurance claim, sourcing transport trucks, figuring out customs requirements, and on and on.

We were not on our own, however. Collins Bay Marina, although closed, made us feel welcome and even kept the restrooms open for us. Their hot showers were a wonderful extravagance. The local yacht club graciously offered us its clubhouse, which we adopted as our warm, dry mission-control headquarters. We were offered assistance by so many. Unbelievably, a fellow Alberg owner who had a derelict boat he used for parts responded to an online ad we'd placed. By the next






A late passage through the New York State Canal system had its moments, far left, and one of its rewards was a speedy Gulf Stream crossing from the Bahamas to Georgia, at left, after a warm winter south.

morning, not only had he delivered a replacement rudder, but he had leveraged his relationship with a local boatyard to coax it into tackling the work. By noon that same day, *Ariose* was hauled to its workshop with a commitment that her repair would be top priority. It was. Eight days later, she was as good as new.

The New York Canal Corporation assured us that, if we were to sneak in by the closing date, they would ensure we got through. And that's exactly what we did. We were the last recreational vessel admitted in 2016, gratefully enduring late-November snow and ice while making the transit that led to an amazing nine months of sailing. You can imagine how sweet the Bahamian sun and aquamarine waters felt when we finally arrived. Sure, our maiden cruising adventure offered us other learning opportunities along the way — many,

in fact — but none with the hard-hitting impact of those first-day-out lessons. And for that, we are grateful. 

*Shirley Jones took a break from her career in the mental health field to focus on making more of her dreams become reality. She and her partner, Tim Martens, spent two summers fixing up *Ariose*, their Alberg 30, before heading south for a winter in the sun. When not aboard *Ariose*, they live off-grid in a cozy straw-bale cabin near North Bay, Ontario.*

Fiberglass

"Itching for fun"



Fast Friendly Supply

Service Plus Great Pricing
Shipping Worldwide Daily:

Core Materials- Divinycell & Balsa Core
System Three Epoxies
WEST System Epoxy
Fiberglass, Carbon, and Kevlar Fabrics
Premium Vinyl Ester and Polyester Resins
3M Boat Care Products and Abrasives
Surf and Sailboard Materials & Components
Tools and Supplies
Boat Building Supplies

No Minimum Order

Check out our catalog at:
www.fiberglasssupply.com
Or call: 509-493-3464
Located in Bingen, WA

The takeaway

—SJ

While we clearly made several mistakes related to this experience, we also did many things right. First, we didn't give up. We tried one thing after another without succumbing to defeat. We were also generally well prepared in terms of equipment, including a spare starter motor and secondary anchor with rode. Before departure, we filed a float plan with my brother and, after dropping the hook, Tim surveyed the anchorage to make sure there was room to swing. After our initial shock, we kept our heads and communicated well with each other throughout. Finally, as soon as we realized we needed it, we sought help. But all the things we did right were not enough to eclipse our missteps.

First, it was penny wise and pound foolish to equip *Ariose*

with a cheap knockoff starter motor. We paid the price. We never should have departed prior to calibrating our depth sounder, pre-programming and learning to use the VHF, making our automatic bilge pumps operational, and practicing with the anchor alarm on our GPS. We should have taken better note of the weather forecast before leaving, and not relied on memory. And knowing we'd need all 10 hours of light to motor to Oswego, New York, why didn't we leave earlier and give ourselves a buffer? Had we done so, we'd not have been pressed by darkness to anchor where we did when we couldn't reach the dock we'd planned to tie to. Finally, when the wind changed and we realized we were anchored off a lee shore, we should have weighed anchor and departed no later than first light.

A new galley stove

A camp stove makes the grade for a lakes-cruising family

BY TOM ALLEY

For the first 49 seasons after our 1965 Alberg 35 was built, a simple two-burner propane camp stove had sufficed in the galley. While the stove had served us well, a couple of long weekends with hungry teenagers aboard made us think about upgrading to something a little more versatile. Besides, the old stove was beginning to succumb to age, and corrosion was becoming more than a cosmetic issue.

Selecting a new stove

We had a very short list of requirements for a replacement stove. I didn't want to embark on a major interior remodeling job in the galley, so the new stove had to fit within a specific space. Though an oven would require sacrificing some galley storage, we felt we really needed it. While it would have been nice to have a three-burner range, the larger size would require major surgery to the interior cabinetry. We concluded that two burners would be a practical limit.

Allocating space for a gimbaled mount would reduce storage options even more, possibly eliminating more than three-quarters of the storage volume we were using for our pots, pans, and plates. The old stove sat on a fixed shelf. Over the years, we had come up with various ways to hold pots in place under way and we were always careful not to overfill them. Gimbals would be a nice improvement, but we didn't make that a priority.

Tomfoolery was already configured to use propane for cooking, so we decided to stay with that fuel.

Shopping for stoves, we quickly learned that marinized stoves were outside our budget, even used ones. While an all-stainless-steel stove is warranted for saltwater boats, we sail on inland lakes, where corrosion is less of a concern. We ruled out marine stoves and started looking at replacing our camp stove with a better camp stove. As we had been living with a camp stove for so long, we didn't see this as a major compromise, and the \$1,000 price difference helped us to rationalize this decision.

In the end, we decided on the non-gimbaled Deluxe Outdoor Camping Oven by Camp Chef. It's a stand-alone stove with a two-burner range and an oven that accommodates a 13 x 9-inch baking pan. It was the right size, had received good reviews, and was available new and on sale for about \$200.



The new camp stove fits tidily in the galley aboard *Tomfoolery*, at top, although the inclusion of an oven required some modification to the woodwork. The original camp stove had served the family well from the time Tom purchased the boat in 1996, above.



Tom started his project by removing the old stove and its mounting brackets and the drawer beneath it, far left. He then cut away the top shelf to reveal the structure within the cabinet, at left.

After cutting away any woodwork that would no longer be necessary, he fitted cleats to support the new shelf for the new stove, lower left. The Dri-Dek in the lower compartment helps maintain an air space between pots and pans and the hull.

The new stove is held in place with cleats that also support a metal bar used for potholders, facing page.



The first thing I did when I brought the stove home was connect it to a propane bottle in my workshop and fire it up. I set all the burners on high and the oven to its maximum temperature. After half an hour, I used a thermal camera to identify hot spots on the exterior of the stove that might need special shielding and/or ventilation when it was installed on board. Fortunately, the stove's exterior remained quite cool except for the oven vent at the top rear. As a result, when installing the stove, I allowed for a 4-inch ventilation space behind it.

Preparing the space

The old stove was rather small, standing less than 4 inches tall. Beneath it was a sizable drawer and a reasonable cupboard. Additional storage was immediately behind the stove in another cubby located below the shelving unit against the inside of the hull.

The new stove stands almost 18 inches high. This meant that I had to remove the shelf that supported the old stove, the drawer, and most of the cupboard below it. But because

the footprint of the new stove was similar to that of the old one, the cubby behind the stove could remain.

After removing the drawer, I used an oscillating saw to remove the shelf on which the old stove sat. In doing so, I had to cut through several screws. Because of where they were, it became obvious that the galley cabinetry had been assembled prior to being installed on the boat. I had to cut through more screws when removing the drawer supports and the front trim panel.

I wanted the new stove's burner cover to be at the same height as the countertop and serve as an additional work surface when the stove was not in use. Determining where to install cleats to support this shelf was easy enough; the difficult part was ensuring they were level relative to the galley countertops.

The original surfaces inside the Alberg 35 were wood-grained Formica. These are easy to clean, but not so pretty to look at. As we've made modifications to the interior, we've covered the Formica with mahogany veneer, which we then varnished. The resulting elegant finish befits a classic yacht with more than 50 years of sailing experience. To match this finish on the shelf and the side panels of the gutted space, I used plywood to which I had glued mahogany veneer.

Installing the new stove

When I'd roughed-in the new space, I test-fitted the new stove. After some minor adjustments, I screwed the new shelf and panels into place and concealed the joints and screw heads under solid mahogany trim.

Because this was a camping stove, the propane pressure regulator was located on the rear, where it attached to the stove with a proprietary fitting. Fortunately, the fitting mated with the regulator using a standard 1/8-inch pipe thread. This allowed us to remove the fitting from the regulator and, using an adaptor, connect it to our existing low-pressure (10 psi) propane line. This modification was necessary to avoid running a high-pressure (~350 psi) propane line through the boat from the propane locker. I used Teflon pipe tape to



Propane safety

No article about propane stoves would be complete without a reference to safety. Propane fuel demands respect and is unforgiving of complacency.

Because propane gas is heavier than air and would tend to settle in the bilge in the event of a leak, when we repowered recently, we left in place the bilge blower for the original gasoline engine.

Lacking a propane locker (it's on the list of future projects), we store our cylinder on deck, where any gas that leaks can easily dissipate. A propane detector and shutoff solenoid are also essential items for any boat using propane.

When a fuel-burning stove is used in a confined space, good ventilation is needed to prevent oxygen deprivation and potential buildup of carbon monoxide (CO). A working CO detector is an important safety item on a boat.


assemble the connections and, before putting the stove into service, tested them for leaks with soapy water. If I could have borrowed a gas sniffer, even better!

The trim piece covering the front of the shelf stands proud of the shelf surface to prevent the stove from sliding off the shelf. I fitted a metal bar in front of the stove, and the cleats that secure it prevent the stove from tipping forward when the boat heels to starboard. Cleats behind the stove constrain it when it heels to port. The metal bar also serves as an attachment point for clamps that hold pots in place.

Teenager-tested

Of course, once the stove was installed and commissioned, we had to test it under operating conditions. To do that, we set out on a six-day cruise.

A definite plus with the new stove was the piezoelectric igniters for the burners — no more fumbling around for a match or lighter. Lighting a burner is a one-hand operation, a simple twist of a knob. The younger members of our crew conducted even more thorough testing: baking chocolate chip cookies while under way. Only six cookies were produced, but the low yield was no fault of the oven . . . the cooks ate the cookie dough almost faster than it could be baked! The oven proved itself later in the voyage when we prepared a pizza.

During the first season of use, careful monitoring of the temperature around the stove assured us we'd provided adequate ventilation and spacing. After two years of use, the varnish on the surrounding woodwork, even behind the oven vent, was still intact. The only challenge so far has been correlating the actual oven temperature with the reading on the built-in oven thermometer. I'm sure we'll figure that out over time. 

Tom Alley — a charter subscriber to Good Old Boat — and his family sail their 1965 Alberg 35 sloop, Tomfoolery, and are active racers and cruisers with the Finger Lakes Yacht Club in Watkins Glen, New York. Tom has been a US Power Squadrons member since the late 1980s, and has been a Squadron Education Officer (SEO) for longer than he cares to remember. He also manages the Alberg 35 User Group website (www.Alberg35.org). When he's not sailing, thinking about sailing, or tinkering with his boat, Tom is either scuba diving, hanging out with fellow amateur radio operators, or (as a last resort) working as an engineer to support his sailing addiction.

Resources

The Camp Chef outdoor camp oven and 2-burner range is available from many camping outlets.

African mahogany veneer in 2 x 8-foot sheets is available from CabinetParts.com.
www.cabinetparts.com

Custom Fabrications

- ★ Stainless stem plates/anchor rollers to replace worn out aluminum castings
- ★ Stainless chainplates to prevent rig failure from fatigued aluminum castings
- ★ Stainless platforms to upgrade your sailboat
- ★ Custom fabrications using our new waterjet capabilities

We take pride in using only North American raw materials.

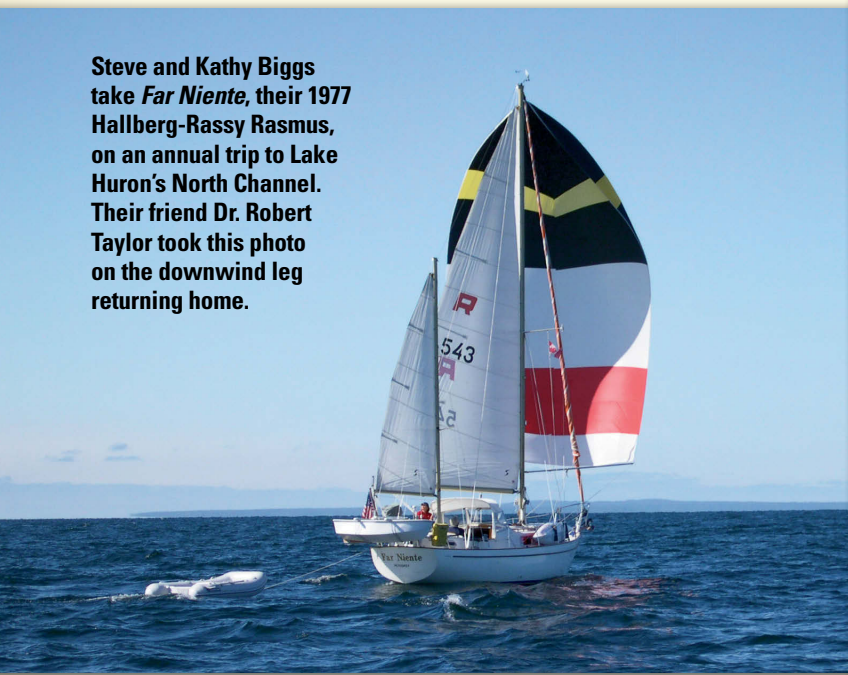


STAINLESS OUTFITTERS
800-268-0395

WE SHIP ANYWHERE IN THE US AND CANADA
www.stainlessoutfitters.com

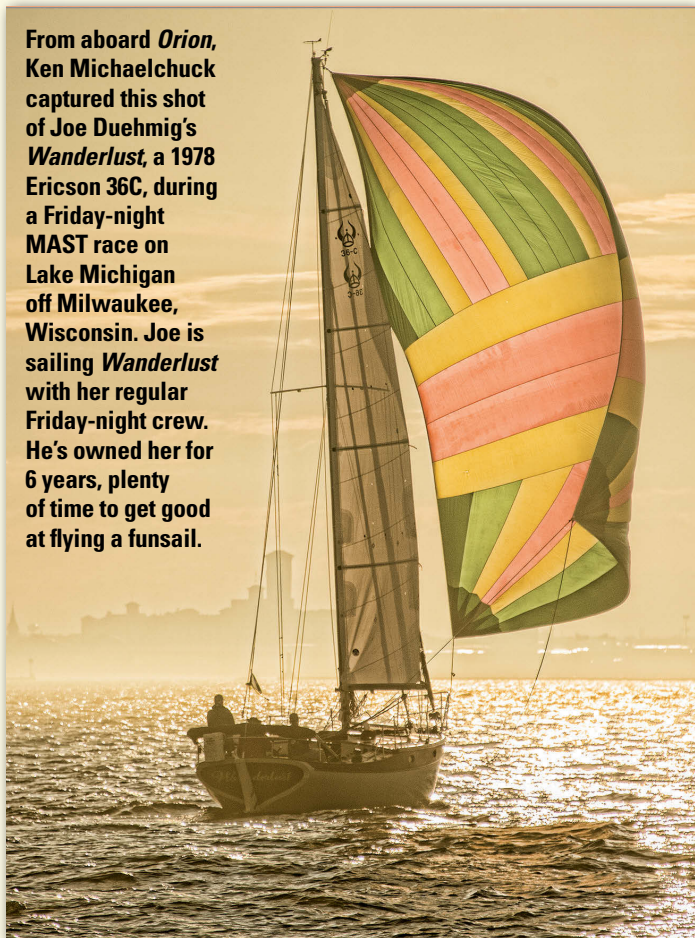
Sailors show their colors

Steve and Kathy Biggs take *Far Niente*, their 1977 Hallberg-Rassy Rasmus, on an annual trip to Lake Huron's North Channel. Their friend Dr. Robert Taylor took this photo on the downwind leg returning home.



"I took this photo on Lake Huron's North Channel during the 2016 North Channel Race Week," wrote Ron Wilson. "*Harmony II* is a Northstar 38 (Hughes) that is skippered by John (Jack) Groom. He sails her out of Lion's Head."

From aboard *Orion*, Ken Michaelchuck captured this shot of Joe Duehmig's *Wanderlust*, a 1978 Ericson 36C, during a Friday-night MAST race on Lake Michigan off Milwaukee, Wisconsin. Joe is sailing *Wanderlust* with her regular Friday-night crew. He's owned her for 6 years, plenty of time to get good at flying a funsail.



John and Jo Vandereerden carry four spinnakers aboard their 1974 Viking 33, *Renegade II*. "This one we use when racing, as we are here during the Wednesday-night race sponsored by LaSalle Mariners Yacht Club in LaSalle, Ontario." Freckles Anne Bunskey captured the action in the southern portion of the Detroit River, just west of Turkey Island.



Tom Palesch took this photo long ago, using Kodachrome 64 print film. "It stirs my nostalgia for the great Lake Superior and the many years I spent sailing up there. I checked with several old sailing friends and none of us recognizes the boat or her crew. Age and time does that to us!" Tom says the occasion was probably the Around Madeline Island Race during Bayfield Race Week, at right.



Kevin Alles caught the action as Mike Lippmann and crew aboard this Hunter 31, *Bear's Mistress*, work to tame the chute. Mike and friends sail out of Lake Erie's Cedar Island Yacht Club.



Marilyn Kinsey and her husband, Glen Brown, are members of the Escanaba Yacht Club and regularly sail *Adena*, their 1989 Bristol 35.5c, on Lake Michigan's Little Bay de Noc.



"This spinnaker is our ancient (1979) 1.5 oz Ulmer symmetrical spinnaker that we fly asymmetrically when the winds are just right," wrote David and Kathy Spencer. The boat flying the sail is *Good Idea*, their Catalina 34, photographed here on Frazer Bay in Lake Huron's North Channel by Ayumi and Ian Nicholls aboard *Cahoots*, their Islander 32, above.



David Carstens and friends have popped the chute here on Louisiana's Lake Pontchartrain. *Tradewinds* is David's aptly named 1977 Hans Christian 38 Traditional, the boat that will soon take him to the Caribbean post-retirement, left.



George Harding Cuthbertson

1929 - 2017

BY ROB MAZZA

George Harding Cuthbertson passed away at the age of 88 at his home in Toronto on October 3, 2017. In the sailing world, George Cuthbertson is best known as the first “C” in C&C Yachts, a boatbuilding company formed in 1969 when the design firm Cuthbertson & Cassian amalgamated with three Canadian boatbuilders. George was the president of that company from 1973 to 1982.

Several years ago, when interviewing Erich Bruckmann about his involvement with Canadian boatbuilding, I asked him how it all started, and he replied: “It started with George, of course! Everything always started with George.” Many who were involved in the boating industry in Canada in the 1950s, ’60s, and ’70s would agree with that sentiment.

George began designing boats immediately after graduating from the University of Toronto in 1950, when he established a company called Canadian Northern with his partner Peter Davidson. Canadian Northern, an early adopter of fiberglass, built the 8 foot 6-inch Water Rat dinghy and made a number of non-marine fiberglass products. George’s design career accelerated when he became involved with Norm Walsh and the 1954 Canada’s Cup. Charged with finding a competitive 8-Metre to challenge Rochester Yacht Club (RYC) on behalf of the Royal Canadian Yacht Club (RCYC), George chose *Venture II*. With her rig and layout optimized, she defeated the other RCYC contenders for the right to challenge RYC, and ultimately beat the RYC defender, *Iskareen*, returning the Canada’s Cup to RCYC after a 50-year absence.

That victory led Norm Walsh to commission the 25-year-old George Cuthbertson to design the 54-foot centerboard racing yawl *Inishfree*. This was only the third Cuthbertson design to

be built, the previous two being the Water Rat and a 24-foot plywood sailboat. *Inishfree*’s ultimate racing success led to a succession of commissions in the late ’50s and early ’60s, a number of which were built by Metro Marine in Bronte, Ontario, in strip-planked cedar, under the supervision of the young German immigrant Erich Bruckmann.

Canadian Northern also imported a series-produced steel yawl, known as the CN-35, from the German builder Beister. The owner of the first CN-35 was Ian Morch, who later established Belleville Marine.

By 1961, George Cuthbertson had taken on George Cassian as a design associate and changed the company’s name to Cuthbertson & Cassian. In 1966, Perry Connolly commissioned the firm to design “the meanest, hungriest 40-footer afloat.” Erich Bruckmann built the 40-foot *Red Jacket*, which was the first boat in North America to have

a fully cored fiberglass hull.

Red Jacket swept the racecourses on Lake Ontario, won her division in the 1967 SORC, and returned to Florida the following year to win the SORC overall.

Another Canada’s Cup victory followed in 1969 with the Cuthbertson & Cassian-designed and Bruckmann-built *Manitou*. In the same period, up to a dozen local builders were building production boats in increasing numbers. As a way to develop some production synergy and raise money for expansion, three of those builders (Belleville Marine, Hinterhoeller Yachts, and Bruckmann Manufacturing) joined with designers Cuthbertson & Cassian to form the public company C&C Yachts.

George’s greatest year as a designer was probably 1971, when C&C designs won not only the SORC overall title but also three of the five divisions. However,



The 40-foot *Red Jacket* put Cuthbertson & Cassian and the nascent Canadian sailboat industry on the map.



From left, George Cassian, George Cuthbertson, and *Red Jacket's* owner, Perry Connolly, celebrate the boat's winning ways.

after the introduction of the IOR in the early '70s, the older Cuthbertson designs to the CCA rule did not fare well, and neither did his boats designed to the new rule. A fresh group of young designers with no CCA baggage — Doug Peterson, Ron Holland, German Frers — busily began designing boats to “beat” the new rule. This development, and the demands of guiding a multinational public company, no doubt influenced George's decision to hand design responsibilities over to Rob Ball and assume the presidency of C&C Yachts.


George oversaw C&C's expansion into new plants in Kiel, Germany, and Middletown, Rhode Island. C&C designs were also being built in the UK and in Italy. In 1981, an outside entity acquired C&C Yachts. In 1982, George left the company he'd helped found 13 years previously. He started a new company, Motion Designs, but the sailboat market was changing dramatically, and the magic of the late '60s and early '70s was gone.

George became the official historian of the Royal Canadian Yacht Club, and he sat for many years on the board of directors of the Marine Museum of the Great Lakes at Kingston, to which he donated a majority of his design files and drawings up to 1973.

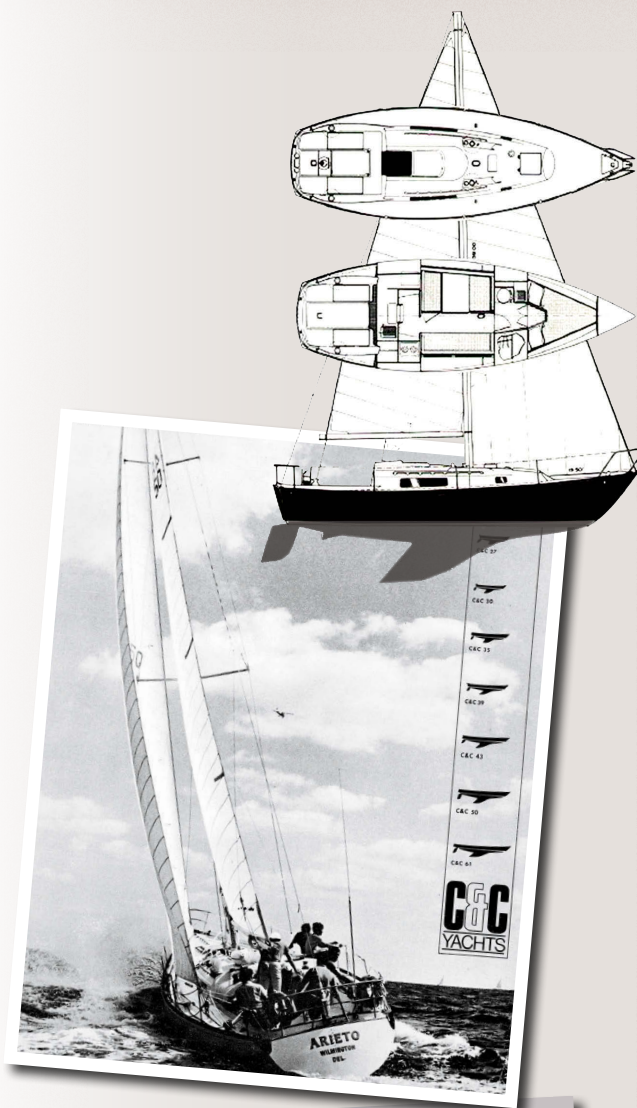
I had the pleasure of working for George Cuthbertson for 15 years. I began at Cuthbertson & Cassian during the summers of 1968 and 1969, when I was studying at Queen's University. After receiving my master's degree in naval architecture from the University of Michigan, I started full time at the design office of what had by then become C&C Yachts.

I parted from C&C in 1985, and it was only within the last 10 years that my wife, Za, and I reconnected with George and Helen Cuthbertson. In that period, George became a good friend, always interested in what we and the other members of his design group of 1973 were up to.

A lot of people, myself included, look back on their years with C&C as the days of their happy youth, when we could actually make a living designing, building, and racing fiberglass sailboats. We owe all of that to George Cuthbertson.

George's death marks the end of an era. He turned a nascent fiberglass-sailboat industry in the 1960s and '70s into a truly Canadian sailboat industry, building Canadian-designed boats that would dominate the market for many years. It really did all start with George. 

Rob Mazza's bio appears on page 15.



George Cuthbertson, albeit indirectly, had a hand in starting *Good Old Boat*. Karen Larson and Jerry Powlas dreamed up the concept for the magazine while cruising the Great Lakes aboard their C&C 30, *Mystic*. George was an enthusiastic supporter of the enterprise.



AIS in the hand

Viewing vessel traffic
with a
smartphone app

BY JERRY THOMPSON

A couple of times a year, I find myself on Virginia's Hampton Roads, a large natural harbor close to the mouth of Chesapeake Bay. With a large Navy base and several shipping terminals, this body of water is always busy with vessels of all descriptions. I've often wondered about what they are, where they're headed, and what they're named. I don't have to wonder anymore. Whether I'm ashore with a view of Hampton Roads or seated at my office desk 100 miles away, I can pull up an app on my phone and see nearly all the traffic, in real time, displayed on a NOAA chart. I can select an individual vessel and see the information it's broadcasting via AIS, the Automatic Identification System.

AIS is a product of a mandate the US Coast Guard received from Congress, following the 1989 *Exxon Valdez* disaster, to create a system that shore-based Vessel Traffic Services (VTS) could use to track Alaska-bound oil tankers. Using encoded VHF radio signals, AIS transmitters broadcast vessel information along with real-time

speed, heading, and destination. This information can be received and interpreted by AIS receivers. In a relatively short period of time, it has become a hugely successful system and has been adopted worldwide. AIS transceivers are mandated for use by most commercial vessels, and many private motorboats and sailboats carry a transceiver or a receiver.

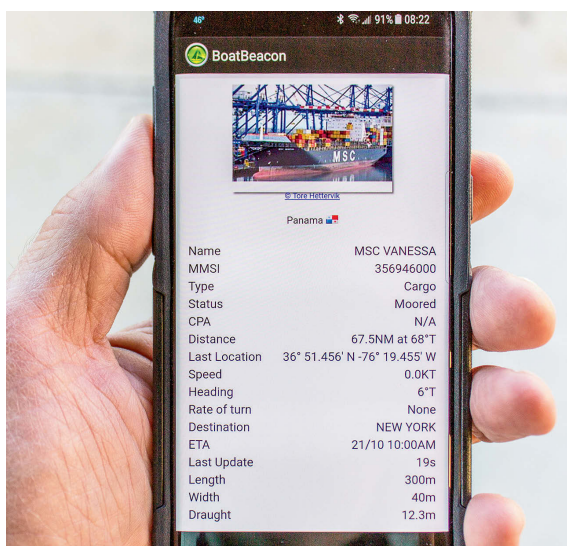
A mobile internet app takes this technology a step further.

Boat Beacon is an app for GPS-enabled iOS and Android devices that collects AIS-transmitted data from shore-based stations and broadcasts that data (usually with about a 1-second delay) via the internet to app users. Alone, this capability is not remarkable. Several apps do the same thing. But Boat Beacon allows me to broadcast my own position (generated by the GPS function on my phone), which is then broadcast to other Boat Beacon users — I show up on the screen just like a vessel with an AIS transmitter. And if I enter a Maritime Mobile Service Identity (MMSI) number, my position

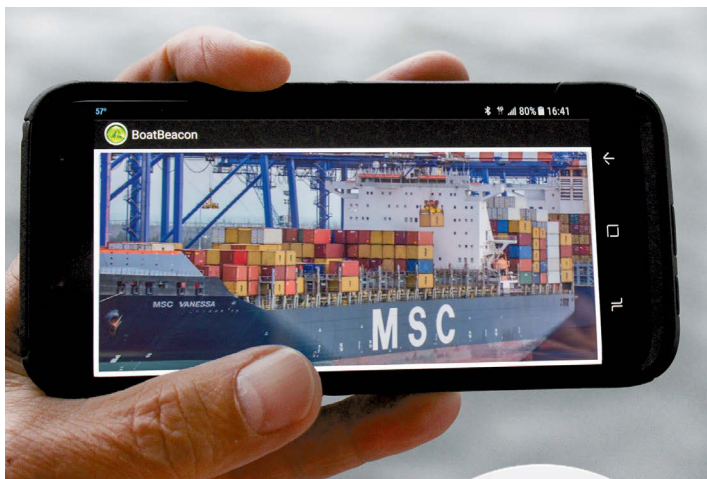
will also show up on other apps that follow AIS traffic, such as Boat Watch and FindShip. However, this transmission is virtual and limited only to these internet-based apps — my position will not be visible on vessel-based AIS receivers.

But that does not mean that this function serves no purpose. I envision local sailboat races in which every skipper carries a smartphone running the Boat Beacon app. Not only would skippers be able to see their competitors' real-time positions, but those on shore could follow the race with a bird's-eye view. Also, family members going out for a daysail can use Boat Beacon to watch vessel traffic while a spouse back home keeps track of them (so long as they remain in range of a cellular signal).

Boat Beacon transmissions are broadcast only to other internet-based AIS systems. Because most vessels use only VHF-based AIS equipment, Boat Beacon users will not be visible to other traffic. Because of this limitation, and because cellular signals cannot



Boat Beacon's main screen, on facing page, shows the features typically seen on an AIS display. Clicking on a vessel's icon pulls up more information, above, that includes its navigational status (course, speed) and details of the vessel itself, such as its type, name, and destination. A photograph is also sometimes shown, upper right.



be trusted to reliably send and receive AIS data, Boat Beacon should not be used for navigation or collision avoidance.

I have learned that I need to have supplemental power for my phone when I use this app aboard; using GPS increases power consumption. Also, I usually hug the coast and cruise inland waters where cellular signals are generally strong. If I were to venture farther from shore, Boat Beacon's utility would disappear.

Several add-on tools are available to enhance the app's utility. These range from upgrading from Google Maps to NOAA charts to integrating with a

FLIR infrared camera to see nearby vessel traffic at night.

Overall, Boat Beacon is a fun and affordable app. I use it to learn more about the vessels I see on the water and as one more tool to supplement my existing navigation and collision-avoidance information. ⚓

Jerry Thompson is an information systems professional who works and lives in eastern North Carolina. He learned to sail more than 25 years ago at the Armed Forces Recreation Center, Lake Chiemsee, Germany. North Carolina's milder winters keep Jerry on the water year-round.

Resources

Boat Beacon is a product of Pocket Mariner

www.pocketmariner.com

MMSI number

A vessel MMSI number can be obtained for free in the US from the United States Power Squadrons or BoatU.S.

Foreign-going vessels must obtain a station license and MMSI from the FCC.

Industry Canada issues MMSIs for Canadian vessels.

The Mainsail Management System

SailCrib
218-547-1188

The safe and practical way to douse or reef the mainsail.

- Single hand the boat with confidence
- No sail or sail cover modification needed
- Built of UV A and UV B resistant marine materials
- Adjustable in length to accommodate all size mainsails

218-547-1188

fleetsails12@att.net

Moisture Meters

for the marine industry



J.R. OVERSEAS CO.
Sea-Thru

www.jroverseas.com
978-526-0925



GRP-33
MANUFACTURED EXCLUSIVELY FOR
J.R. OVERSEAS COMPANY

- ✓ In stock
- ✓ Easy ordering
- ✓ Simple to use

Where meters peg for moisture.

A cool place to winter aboard

Intrepid Great Loopers survive in frigid Duluth

BY GARY BRATTON

Most cruisers complete the Great Loop cruising route — up the ICW from Florida, through the Erie Canal to the Great Lakes, south from the bottom of Lake Michigan to the Gulf of Mexico, and back to Florida — in the span of a single year. They head north from Florida in spring, spend summer on the Great Lakes, head south in fall, and sail the Gulf of Mexico in winter. It's a great route, but the schedule set by the seasons doesn't leave time for cruising Lake Superior. Because we wanted to see Lake Superior, and because we wanted to linger with relatives who live around Lake Superior, we chose to make our Great Loop adventure a two-year affair. That forced us to find a place to wait out the long winter. We chose Duluth, Minnesota. And we chose to stay on board our boat.

Duluth is rated in the top three most brutal winter cities. It is farther north than every major Atlantic seaport city, save Quebec. Duluth winters average 81 inches of snow and the waterways freeze 3 feet

thick. Temperatures stay below zero for weeks and regularly touch -30°F. With 50-mph winds howling unimpeded across the largest of the Great Lakes, average January temperatures range between a high of 19°F to a low of -2°F, fully 9 degrees colder than those for Anchorage, Alaska.

Jodi, my wife, is a three-time World Champion country dancer, and her achievements are reflected in the name of our 2000 Catalina 470, *Country Dancer*. We love our boat and we love living aboard her. She's our magic carpet and our floating home. Putting *Country Dancer* on the hard and getting an apartment for the winter would have been like leaving a loved one alone on an arctic ice-floe. We were determined to winter aboard in the water, and saw doing so as a challenge.

Living on the hard above a 10,000-pound lead keel chilled to -30°F and with no water and no toilets didn't appeal to us. But if we remained afloat and could keep the surrounding water free of ice, nothing below the waterline would get colder than 32°F. We could

keep water in our tanks and our toilets and our sinks would operate normally. We could use our 8-kilowatt water-cooled diesel generator in the event we lost shorepower.

De-icing

To keep the water around our boat from freezing, we used Kasco de-icers, which are like electric trolling motors suspended on lines under the boat. Due to a unique property of water, even in a frozen lake, liquid water at the bottom is warmed by the earth to around 39°F. By circulating that warmer water to the surface, the de-icer keeps ice from forming.

A call to the Kasco factory assured us that, down to about 10°F, a single ¾-horsepower de-icer would keep *Country Dancer* in liquid water. Below 10°F, two would probably be required. Spirit Lake Marina, where we stayed, had four units available for use. We felt sure we could avoid being

When winter arrived in Duluth, *Country Dancer* was wrapped and ready, at top.

crushed by growing ice, even in the coldest polar vortex.

Snow load

Next we considered the effects of snow. An average snowfall of 81 inches is a lot. We were told that it mostly would be light and fluffy, but that the spring snows were often wet and heavy.

Collapsed boat covers are common, but to keep the snow, ice, and wind off the deck, we needed some kind of cover. Because this was a one-season project, shrink-wrap seemed the obvious solution. We chose clear wrap to let in more light and create a greenhouse effect when the sun was out.

I wanted to retain access to the whole deck, so we used the boom and the whisker pole as ridgepoles for our cover, supported by the topping lift and fore halyard. We used 45-degree PVC fittings to join ½-inch PVC tubing and create toerail-to-toerail arches to support the wrapping and create squatting headroom over the entire deck. I could skooch around beneath the cover to deal with docklines and to fill the water tanks. Unfortunately, this was not an unqualified success.

Heating and insulation

I found an online BTU calculator, but it asked for lots of numbers I didn't have. I measured the interior at shoulder height (450 square feet) and guessed at the window sizes. Our hull

is solid glass below the waterline; the topsides and deck are cored. I input an R-factor of R-3. We were in an environment that could go down to -33°F. The calculator said we'd need to add 50,000 BTU of heat per hour. Our three onboard heat pump/AC units had worked well in the ocean and together provided about 28,000 BTU of heat. Unfortunately, they would be worthless in water very near 32 degrees.

I had access to a diesel fireplace rated at 9,000 BTU and an RV propane unit at 15,000 BTU. They wouldn't even get us close. We needed a massive propane furnace and equally massive plumbing to get fresh air into the boat to service it. A BTU saved is a BTU earned. It was time to look at insulation.

A friend who spent a couple of winters aboard in DC suggested foil-backed bubble-wrap insulation in all closets and ports. "If you don't," he said, "The hull will sweat. It will soak your sweaters. And they'll freeze to the hull."

This simple insulation material has an R-factor of about 1.25. R-factor is a complex calculation of resistance to heat flow over time. I looked up the recommended insulation R-factors for Duluth: floor R-25, walls R-40, and ceiling R-50+. R-1.25 bubble wrap was not going to cut it.

We have a 50-amp electrical service, which comes aboard as three 15-amp 110-volt service lines. Almost

all electric space heaters are rated at 15 amps, so we could potentially support three. Those heaters are rated at 5,200 BTU, so using the maximum power available, we could create 15,600 BTU per hour. Going back to the online heat-loss calculator, I began plugging in numbers. I found that, if I could control heat loss through the deck with an R-factor greater than 25, an R-factor through the hull greater than 5, and ignored the ports and cabin sole, I should be able to handle -33°F with 14,500 BTU per hour.

That made my choice for insulation extruded polystyrene foam board (pink board or blue board). This stuff is easy to work with, does not absorb water, and has a reasonably good R-factor of R-5 per inch of thickness. I pulled some drawers out in the aft stateroom. One hour later, I had glued and jammed about seven pieces of 1-inch-thick foam in and around all the hoses and conduit to cover about 1.5 square feet of hull. At this rate, I would finish sometime in April and have gained an R-factor of about 4. It was time to think outside of the box, and maybe outside of the hull as well. Why couldn't we insulate on the outside?

Heat-loss mechanisms

Heat moves to the cold by radiation, conduction, and convection. Radiation is a long-wave energy form we call infrared, which we normally associate



Drawing on a well of 39°F water from the bottom of the river, the de-icers were able, for the most part, to prevent ice from building up around the hull, at left. Insulating the outside of the boat was a big success, at right. Even while the windchill was -48°F outside, heaters running in economy mode could maintain the interior of the boat at 70°F.

with the warmth we feel from the sun or a fire. It can be successfully controlled by reflecting it with shiny foil.

Conduction is heat energy transmitted through collisions between neighboring molecules. The heat you feel when touching a warm rock on a beach is from conduction, as the energy moves to your hand from the rock. When insulating, any break in the insulating layer will allow vast amounts of energy to move from the inside of the insulation to the outside by conduction through these thermal shorts. It's like the water coming in through a broken seacock. It's amazing how fast the ocean can come through that tiny hole. The same is true of heat moving through the thermal short of a steel shroud poking through insulation.

Convection is heat energy moving by being carried through a fluid, such as air or water. When the wind blows in your face and carries away the energy in your skin, we call convection windchill. It is so effective at robbing heat energy it's the leading cause of frostbite.

There were several advantages to moving our insulation outside the hull. First, we created a seamless blanket of insulation without the thermal shorts of shrouds, bulkheads, and exhaust hoses jammed against the hull and all those window and hatch frames. Second, instead of the insulation taking up even more of our valuable interior space, we could put a much thicker layer where it wouldn't affect how our clothes hung.

A skirt for *Country Dancer*

We floated 4 x 8 sheets of pink foam on edge alongside the hull and tie-wrapped the top edges to the toerail. Since our boat is fairly large, the big sheets didn't have to bend too much, and we could use 2-inch-thick R-10 foam. (On smaller boats, it would probably be better to use two layers of more flexible 1-inch foam.) We carefully trimmed the

edges and taped them together with thick Gorilla Tape. Once the hull was completely wrapped in foam, we used shrink-wrap straps to pull it firmly against the hull. It was most important to make sure no wind could get under this foam layer. If the insulation was not in contact with the hull, convection would take all the heat from the hull to the water and the insulation would be worthless. As reinforcement, we cut a 6-foot width of white shrink-wrap, strapped it over this belt of foam, and used the heat gun to shrink it tightly

“I was wrapped around the mast and stretched over her with a huge flaming torch in one hand...”

to the hull. Although not perfect, our results proved that we were largely successful in this design.

Wrapping the cover

Our eventual winter berth was to be the travel-lift bay, once the travel lift was finished for the season. Because we were going into the bay stern-to, the plan was to build a short gangplank and enter the boat through our walk-through transom. I made a plywood door with a stainless-steel piano hinge and gave it two quick coats of cheap poly clear coat. I secured the door frame to the solar array and davits with tie-wraps and fastened the shrink-wrap to the frame with screws, staples, and battens before shrinking. This concept



With few places to secure the dinghy to *Country Dancer*, working in it to apply the shrink-wrap was a delicate balancing act.

worked wonderfully. We even bought a wireless doorbell so the UPS driver could notify us when delivering packages.

After shrink-wrapping the entire aft section, we covered the bow, slotting for the mast and rigging as we had for the aft section. I left the anchor in its roller and wrapped the extra plastic around it. All this was taped and attached *except* around the mast. Here, we had to stand in the gap between the bow section and the stern section to weld the two pieces of shrink-wrap together.

Videos on shrink-wrapping show how to wave a huge propane torch over the plastic and, while using the back of your hand in a thick leather glove, quickly pound the plastic together around a piece of strapping, thus

welding the wrap to itself. The heat of the torch has to soften the plastic to the point of being very sticky but not quite liquid. If you move too fast, the plastic begins

to shrink but isn't joined and will pull apart.

To weld the front piece to the back piece at the mast slit, Jodi's hand in an oven mitt served as the inside anvil. I was wrapped around the mast and stretched over her with a huge flaming torch in one hand while hammering my leather glove into her oven mitt with the other. All the while, I was trying to keep two huge sheets of plastic from blowing in the wind. This activity will draw a crowd. We were careful to use our inside voices and Sunday-morning vocabulary. (This shrink-wrap joint became one of our failures, as we were not able to adequately weld the two pieces together and the tape eventually let go.)

Once the shrink-wrap was in place and welded at the edges, it was time to shrink it. This stuff is amazing, as it will shrink, and shrink, and shrink some more. I learned not to quit once I had a good torch process going, because the second pass will leave wrinkles. If the framing is too thin for the cover, the shrinking is so powerful it can break the frame as it tightens. For us, the shrinking process was a multi-step affair. Imagine standing in your dinghy while holding a monster torch in one hand and banging the back of your other hand against the hull to weld two pieces of plastic together while the dink obeys the laws of conservation of motion and scoots backward across the slip.

The shrink-wrap was integral to our design. Once the deck was sealed from the rain, I was able to stack pieces of 10-inch-thick fiberglass insulation to cover the whole deck. This was R-30+, and we could move it out of the way when we needed to fill the water tanks. When the weather was not too cold, we stacked the pieces so sunlight could get below through the ports and hatches.

The ports and hatches both got their own pink-foam treatment. We made covers to press into the openings from the inside so the foam touched the glass and prevented sweating. These were easy to remove when we wanted to vent excess humidity or let in sunshine. We'll use them in the Tropics too.

Inside air

Humidity was a huge concern as we faced the coming season. We also needed a way to bring replacement air into our sealed plastic bubble. We could keep the humidity down by taking showers ashore and using a dehumidifier, but our real concern was the risk of asphyxiation. Many activities on board use oxygen and leave carbon dioxide behind. Cooking and heating with propane are the biggest factors, but our breathing also contributes to the problem. On a cold weekend in a sealed boat, it can get pretty dicey, even with electric heat. The first weekend under the bubble, we noticed that we had headaches in the morning, the first sign of carbon monoxide poisoning.

I was oblivious to this issue until a friend asked how we were handling the problem. My blood ran cold; I was poisoning us and didn't even recognize the symptoms.

I designed an air-to-air heat exchanger using two computer fans and a 10-inch length of 4-inch-diameter PVC tube that enclosed an inner aluminum tube made of soft-drink cans. The idea was to draw air into the outer tube from outside and warm it with the air being exhausted through the aluminum tube inside it. The entering air first contacted exhaust air that had already lost most of its heat and progressed to the end of the tube, where the exhaust air had just entered and was very warm. Fresh very dry air replaced the exiting warm moist air. We had solved our humidity and oxygen issues with a single device. It was so effective we were able to run our heat exchanger at very low temperatures and not notice a difference in cabin temperature. We always ran it while cooking, which created some wonderful smoky gray icicles on the outside.



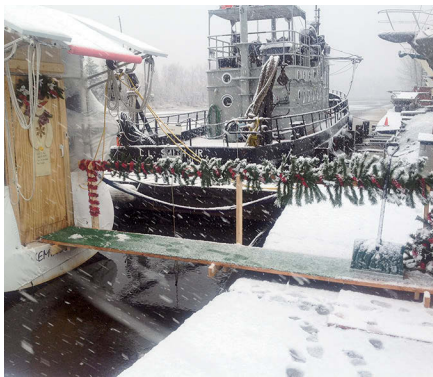
Gary's air exchanger, which he made from PVC pipe and beverage cans, above, was a huge success at removing humid carbon dioxide-loaded air from the cabin and replacing it with dry fresh air. The icicles that formed on it were a sign of how much moisture was being expelled, at right.



Cool cruising

The winter of 2015/16 was an El Niño year, and the weather gods smiled on our stay in the northlands. The coldest temperature we saw during our season in the snow was -18°F with a windchill of -48°F. We suffered only a single 7-day stretch when the high temperature never rose above zero. Most of the locals pooh-poohed our great adventure aboard by saying, "You can't claim you stayed in a *real* Duluth winter." But we did.

Not only did we survive, we thrived. We walked and biked hundreds of



A bucket of ice-melt in the cockpit gave Gary and Jodi a little more confidence walking a 12-foot plank over freezing water with a $\frac{3}{4}$ -horsepower prop churning it to foam just below, at top. The docklines would become frozen into solid chunks of ice, center, and adjusting them for water-level changes required the help of a propane torch. The $\frac{1}{2}$ -inch PVC supports beneath the cover sagged easily under the snow, so Gary dragged off the snow — sometimes hourly — with a very long push broom he fashioned, above. Due to the greenhouse effect of the clear shrink-wrap, on some sunny days the temperature in the cockpit would reach 80°F, above right, even though the outside temperatures were sub-freezing. Released from winter's grip, Gary, Jodi, and *Country Dancer* resumed their cruising itinerary, at right.

miles, shot hundreds and hundreds of pictures, and played again in the snow like children. It was a fabulous season and an adventure worthy of the label cruising.

And then came the spring


If you survive the winter, you must then survive the spring. Duluth is on the side of an 800-foot escarpment, and the spring thaw can sometimes wash small forests down that hill. The onslaught comes from the other side, too, as mile-long sheets of ice blown by the wind move ashore, crushing cars and even houses.

As for spring, the marina is 6 miles up the St. Louis River from Lake Superior. It was originally a shipyard that built Victory and Liberty ships during the two world wars. The marina has solid earthen piers and slips averaging 16 feet deep. This is an excellent well of warm deep water and a safe haven from the marauding logs and mini icebergs that flow downriver in a frightening display during May.



Staying in the travel-lift bay further enhanced our security. Both sides of the bay are strong steel structures capable of supporting the 40-ton crane. Another advantage of this location is that we were right in front of the laundry and bath facilities, although our hair still froze as we walked to the boat after showering.

Winter aboard turned out to be quite pleasant, but spring was a different story. In May, we removed the shrink-wrap, gave away the insulation, and headed forth from the travel-lift bay to a temporary slip. It was a new world, but still a *very* cold one. Without our insulation and shorepower, the first few weeks were the most miserable of the season.

All in all, the adventure was well worth the effort, but we were more than ready to trade our Sorel boots for Panama Jack flip-flops on our way back to the South. 

Gary Bratton, his wife, Jodi, and their schipperke, Rio, have been cruising full-time on their Catalina 470 since April 2013. Gary attended the University of Washington, and his multiple careers included professional Motocross racer, home builder, several positions in the sailing industry, and 20 years in his own IT consultancy. Now semi-retired, he writes website code for a book of international clients (including Good Old Boat) and an occasional story about his and Jodi's projects and adventures aboard Country Dancer.



BY ROGER HUGHES



Renovating a RIB

A dilapidated freebie becomes a respectable tender

When I bought my Down East 45 schooner, *Britannia*, she didn't come with a dinghy, but she had very sturdy aluminum davits just waiting for a new dink. I considered the types of inflatables available and decided I wanted a rigid inflatable boat (RIB). And I wanted one made of Hypalon because it is more resistant to sunlight and abrasion than the less-expensive alternative, PVC. The only stumbling block was the cost, which, at \$3,000 to \$4,000 for a new boat, was well outside my budget.

Because it was worth a try, I posted on the CruisersForum website, asking if by chance anyone had a small used RIB to sell for around \$500. I wasn't optimistic; used RIBs usually sell for more than that, so I was pleasantly surprised to receive a reply from a fellow named Chris. He had an old 10-foot Caribe RIB in his backyard in Sarasota, Florida, that I could have for nothing if I picked it up.

We drove the 120 miles in my minivan the next day and picked it up. It was a 16-year-old C10X model and decidedly dilapidated. For the price, though, I couldn't really be choosy. I publicly thanked Chris on the forum.

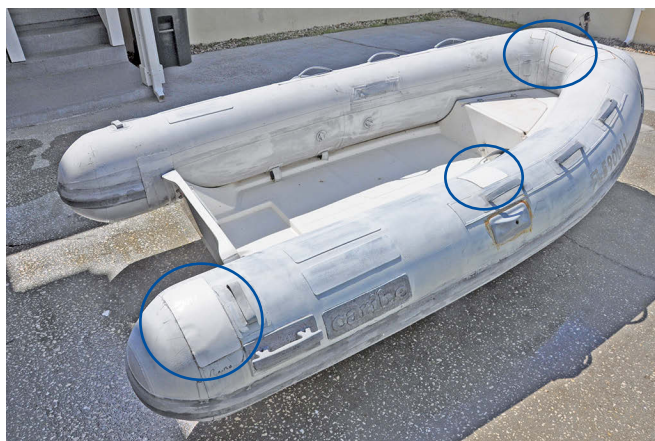
Only one of the three compartments held pressure, but the fiberglass bottom was in good condition. It cleaned up well, after we flushed out a few dead frogs and roaches.

For three days, I tried to find the leaks, using an electric air-mattress pump and the soap-and-water test method. I finally decided to have it professionally inspected.

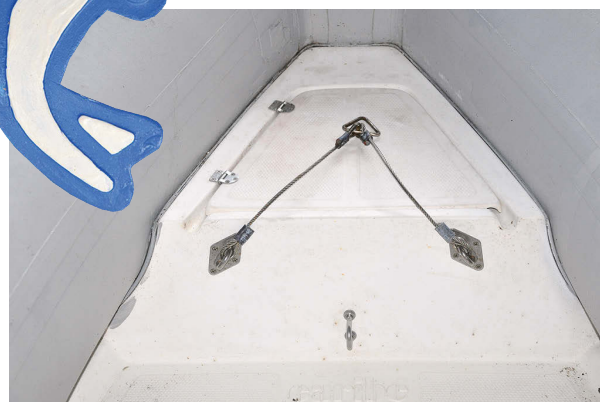
When it was inflated with a commercial compressor to the correct pressure, the leaks immediately began to bubble up. Some were not in the seams, where I assumed they would be, but in the material itself. One air valve also leaked, and five larger leaks needed patches. The patches and a new air valve cost \$220.

The slower leaks, called bleeds, were permeating through the material. They needed to be tackled from the inside, using an internal inflatable-boat liquid sealer.

I contacted Dan O'Connell, owner of Inland Marine in Cape Coral, South Florida. His company makes all sorts of stuff for repairing and restoring inflatable boats. Dan was extremely knowledgeable and helpful, even to the point of advising me not to bother with one of his products that an employee had recommended, saving me \$150. He recommended I start with their Inflatable Boat Sealant, which is injected into the boat's chambers through the air valves to seal leaks from the inside. I bought a bottle for \$55.



Roger obtained the dinghy, top left, for nothing, which made it worth his while to try to renovate it. After a local inflatable-boat shop fitted patches (visible by their paler color) on the bigger leaks, at left, and Roger made other repairs, he painted the dinghy with a special topside paint and highlighted the rubbing strake in blue to match the hull color of his Down East 45 schooner, *Britannia*, top right.



Roger deflated the dinghy, injected sealant through an air valve, above, then reinflated it halfway. After the injection, the dinghy had to be rotated so the sealant could find the leaks. The stepladder helped support it in certain positions, above right. Roger highlighted the Caribe logo and the dolphin emblem, above. He made the forward lifting straps, at right, using tools at his local West Marine store, then bolted them to the face of the bow locker. He made similar straps for the transom lifting hooks.

One chamber at a time, I injected the liquid through the valve, then half-inflated the chamber and tilted it so the liquid would run down the inside to roughly where the leaks were, on the top sections of the tubes. As I understand it, the sealant “atomizes,” becoming airborne inside the tubes, and coagulates in the perforations where air is escaping. Excess liquid dries to a light film on the insides of the chambers, helping to prevent future porosity problems.

The instructions for the sealant said to rotate the boat every 30 minutes to allow the fluid to coat the rest of the inside of the chamber. However, my wife and I found it very difficult to hold this heavy boat in the upright position — until I hit on the idea of supporting it with my stepladder. We rotated it in this way, 90 degrees at a time, hoping that the liquid would coat the whole of the inside of each chamber, then left it overnight.

The next day, I inflated the boat as hard as my air-bed pump would make it. This was not as hard as the manufacturer’s specified pressure of 0.2 bar

(2.9 psi), but I planned to buy a more powerful foot pump if we had managed to stop the leaks. After leaving it in my garage for another night, I inspected it in the early morning, while the air temperature was still cool. To my pleasant surprise, all three chambers were still hard. As days passed with no appreciable loss of pressure, I became confident the leaks were sealed.

I then ordered a dinghy foot pump with a built-in pressure gauge from Defender for \$36.

Unfortunately, even though it had six adaptors for different nozzles, the foot pump didn’t have the Halkey-Roberts latching adaptor used on Caribe dinghy valves. I bought one from Amazon for \$7. The foot pump enabled me to inflate the boat to the manufacturer’s recommended pressure for the first time. Three pounds per square inch may not sound like much, but I had visions of the whole thing exploding and blowing the roof off my garage.

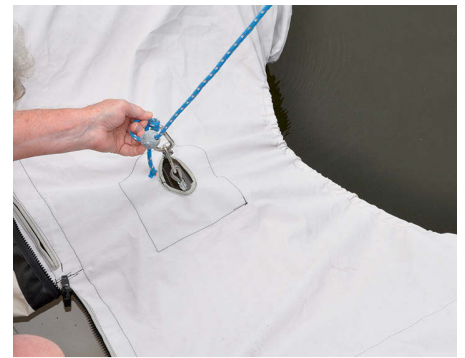
The next stage was to improve the dinghy’s scruffy appearance. I sanded the whole topsides with 80-grit

sandpaper to remove some of the paint that had been applied years ago and was now loose. I then emailed a couple of pictures to Dan, who suggested I should just paint the boat with their topside paint, which is available in seven colors. I ordered a quart of gray and a pint of blue for \$70.

I began by masking all around the rubbing strake, then gave the strake two coats of blue, using a throwaway brush. I also painted the Dolphin logo on the bow and the Caribe logo on each side, highlighting them with white paint.

The next step was to paint the whole of the topsides of the tubes. I masked off the rubbing strake, the oarlock sockets, and all the handles. I decided to roll the paint over this large area with a 4-inch nylon roller. Two coats covered up most of the scratches and left a very presentable semigloss finish. The boat now looked almost new.

I then visited our local West Marine store where, using equipment in the store, I made two stainless-steel wire straps, along with U-bolts to attach to the forward locker, for a total cost



The special transom drain, above left, allows water to drain out of the dinghy when it is slung in davits at an angle, but the ball stops water entering when the dinghy is in the water. Roger had to file down the ends of the oar handles, above center, before they would fit into the new blades. After completing the restoration work, Roger launched the dinghy and rowed it to the stern of *Britannia*, at right. He modified the dinghy's cover, above right, with grommets for the lifting strops and a zippered center section that facilitates fitting the cover onto the dinghy.

of \$25. The transom already had two U-bolts. Mounting lifting strops to the solid hull of a RIB is easy.

The transom drain plug was missing when I got the boat, so I fitted an automatic scupper drain from West Marine for \$20. The ball valve prevents water from entering, but drains a boat that's angled in the davits. This saves having to reach over and remove the drain plug when the dinghy is in davits.

The blades of Caribe oars clip to the shafts with a spring-loaded button, but they were missing. I contacted Caribe Nautica, Doral, near Miami, Florida, and bought two blades for \$61. However, they wouldn't fit the shafts, because a lip inside the blade prevented

it from engaging the button in the shaft. I simply filed a very small ridge all the way around the end of the oar shaft to make it slide on. I didn't like the idea of a single spring button holding the blade anyway, so I also screwed a stainless-steel self-tapping screw through the blade into the oar for extra safety.

We had a grand launching at the boat ramp near our marina. I then rowed the dinghy to *Britannia*'s stern and hooked it to the carabiner hooks on the davits.

I had bought a cover to protect the dinghy from the harsh Florida sunlight, but stretching it over the front and rear of the tubes, then hooking it to the lifting lines through the grommets I had sewn in the cover, proved very awkward while the boat was in the water. More than once, I nearly fell in when leaning over to stretch the cover over the aft ends of the tubes. I finally made this much easier by stitching two zippers into the cover to make a wide flap in the center. I can work inside the flap to fit the cover, then zip it up when the boat is in the davits.

The extra weight of a RIB did not faze my electric hoist, which easily raised it out of the water in 20 seconds.

We had put a lot of elbow grease and cash into this project, not knowing if it would ultimately be worthwhile. But we now have a very strong, presentable dinghy. Not only does it enhance

Britannia's appearance, but I also feel confident using it. 

Roger Hughes has been sailing for nearly half a century as a professional captain, charterer, restorer, and happy imbibitor on a lot of boats. His present project, the restoration of Britannia, a once run-down Down East 45, is nearing completion after six years (he thought it would take two at the most). Roger and his wife, Kati, look forward to cruising in 2018 and using all the innovations he has incorporated into the boat, many of which have been featured in Good Old Boat. Roger has documented more projects on his website: www.schooner-britannia.com.

Resources

Inflatable Boat Sealant, topside paint

Inland Marine in Cape Coral, FL
www.inlandmarine.us

Scoprega Bravo 7M Foot Pump

Defender, #454219
www.defender.com

Halkey-Roberts latching adaptor

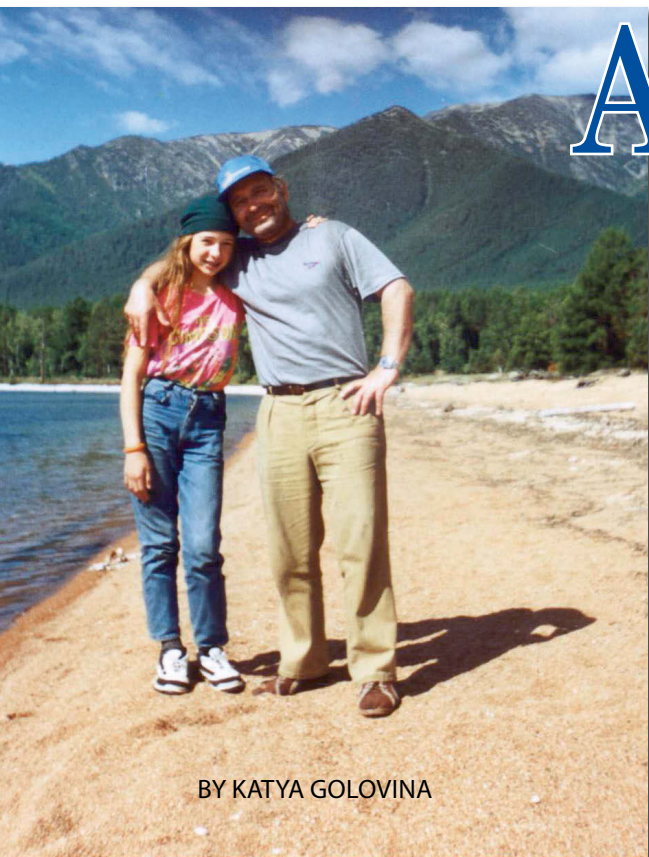
www.amazon.com

Scupper drain

West Marine, #1930353
www.westmarine.com

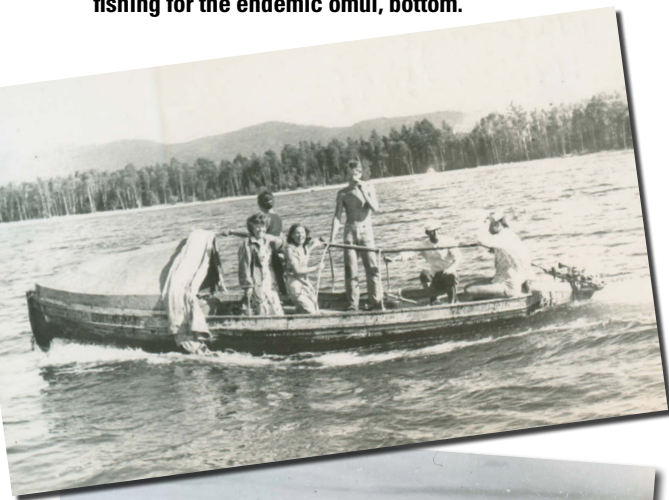
Costs

• Caribe RIB in dilapidated condition	\$ 0
• Patches and new air valve	\$220
• Liquid internal sealant	\$ 55
• Topside paint:	
1 quart gray, 1 pint blue	\$ 70
• Automatic scupper drain	\$ 20
• Oar blades	\$ 61
• Wire lifting strops	\$ 25
• Dinghy pump	\$ 36
• Halkey-Roberts valve adaptor	\$ 7
Total	\$494



BY KATYA GOLOVINA

Katya's father, Nikolay, first took her to visit Lake Baikal when she was 12 years old, above. As a student and teacher at the Far East University, Nikolay spent many a weekend messing about in boats, below, and fishing for the endemic omul, bottom.



A father's gift

The yen to travel by boat is in her blood

I grew up in a megalopolis of five million people. My father always seemed to me a city person. He was an engineer, a tutor at the university, and a human encyclopedia who had answers ready for whatever questions kids might ask. Yet black-and-white photos in his album told me that another papa existed, one I didn't yet know.

When I was a child, he would put on a vinyl record, and the deep baritone of the Russian singer Leonid Kharitonov would fill my head.

*Glorious sea, the sacred Baikal,
My honest sail, a holed robe,
Hey, Barguzin, stir the hush,
I can hear thunder growl.*

I was too small to know where Baikal was or what "Barguzin" referred to, but I knew the song held meaning for my family.

My father was born in Ulan-Ude, the capital of the Buryatiya Republic, in southern Siberia. As a student, and later a teacher, at the Far East University, he would spend weekends with friends 250 kilometers northeast of the city on the shores of Lake Baikal, the deepest lake in the world. There, the young men would remove the cover from their yawl (a small sailing and motor boat), load provisions for several days, fishing rods, a grill, and canvas army tents, and set sail.

I took my first sailing trip with my father at the age of 12, and began to get to know the man in the pictures. We spent five hours driving on South Siberia's challenging roads before arriving at cozy Chivyrkuysky Bay. The water was shallow and warm and here my father resolved one of the enigmas of my childhood: Barguzin is the name of the mighty wind that blows in the central part of Baikal, an airstream that flows from the Daurian steppes. Particularly powerful in autumn, the Barguzin might blow at 45 mph for several hours. It was a reliable source of sailing energy.

On our first journey, I realized he could tell me the name of any rock or island. I learned how many times, on how many different boats, he had plied these waters. Could I wish for a better guide? As we cast off in a wooden yawl loaded with provisions and equipment, I could not have imagined that, only 10 years later, I would sail without him, along the Norwegian coast, across the Baltic Sea, and later, in the Mediterranean Sea and the Atlantic Ocean.

Baikal is rich in creeks, bays, and coves, most of them well protected and bordered with a beach. Each beach, many of which rival in their beauty the famous beaches of Brazil, has its inherent magic and its own secrets. My father's favorite bay is called Ayaya. It's a 3-mile-long fjord that pushes into the shore and ends near the massifs of the Barguzinsky mountain range. Here, we left the boat and climbed up green slopes, across a carpet of fragile snow-white reindeer lichen beneath a canopy of low trees. We arrived at a glacial lake called Frolikha. Water in this lake is ice-cold year-round. We walked in up to our knees. I soon lost feeling in my feet and ran out of the water as fast as I could. My father dove in head-first and swam to the middle of the lake. I was not surprised. I'd seen photos taken in winter of him in a wetsuit peeping out from a hole cut in the lake's ice.



Nikolay and his friend Oleg Pavlovich, whom they called Tolstoy because of his beard, are former colleagues, at left. The yawl was a popular sailing craft on the lake in the 1970s and '80s, below. Back in those days, fishing and pleasure boats took many forms, bottom.

Today, these are the memories that return each time I sink below the surface to dive warm, colorful waters in the Mediterranean or the Caribbean Seas.

Land of legends

"It looks like a horse's head!" I announce, pointing at the promontory on the port beam. There is a story behind most of the Lake Baikal landmarks. My father tells me this one.


Back when Genghis Khan and his army camped here on Olkhon Island, they left behind a huge cauldron with a horse's skull inside. Hence the name. Some people believe that Genghis Khan's cauldron is still there. My father is not one of them. He's traveled several times around the 45-mile-long island and he's never found a cauldron.

Near the Khizir village we found a calm bay ringed by thin strips of sandy beaches. A narrow isthmus connects the island to the Burkhan Cape, the sacred place of local shamans. Every tree branch on the cape is adorned with colorful ribbons left there by people who come here to make wishes — a yellow ribbon for wealth, green for health and harmony, and so on. There are also the obos, or big piles of stones. Shamans believe that sailors who add a stone to an obo make peace with the spirits and are thus more likely to receive the blessing of fair winds.



With my father as my guide, I took my first steps as a traveler at Baikal. Since that trip, I've been to 45 countries, including Mongolia, China, and the Orthodox Balkans. Baikal is a place where the traditional Russian Orthodox religion, Tibetan Buddhism, and the shamanism of local tribes, mostly of Mongolian origin, are practiced. It's where my father showed me how diverse beliefs and cultures can coexist in peace.



Many years later, I made the sea my home, living aboard a 37-foot sailboat with amenities my father would never have imagined. Where I enjoy a modest but functional galley, his kitchen was a pot over an open fire on the beach. Retreating into my cabin belowdecks, I remembered when he and I would shelter from the sun and wind beneath a piece of sailcloth stretched across the boat. I relied on a computer to receive weather forecasts via fax and a GPS to navigate. He created a mental map after seeking the verbal advice of local fishermen. But even today, when I pass a rock pile, I always stop to add a stone and wish myself fair winds. 



Katya shipped aboard *Shtandart*, the Russian sail-training frigate, and was part of the project from 2007 to 2010.

Katya Golovina, a professional journalist, was born and educated in St. Petersburg, Russia. For four years she lived aboard, cruising the Atlantic Ocean, Mediterranean, Baltic, and Northern Seas. Her first sailing experience was at Lake Baikal when she was 12, in the company of her father, who knew the lake and its surroundings like his five fingers. He has passed on to Katya his passion for sailing and exploration.

Battling with ball valves

Fifteen years of world cruising and my wife, Ellen, and I were now gliding along the Sassafras River on Chesapeake Bay's Eastern Shore aboard our Nor'Sea 27. It was good to be home. After tying *Entr'acte* securely in the marina and closing all the seacocks, we hit the road to reunite with family and old friends.

Upon our return two weeks later, I went to re-open the seacocks. Every valve turned smoothly as always, except for one. It would not budge. Tired after the long trip, I decided that, despite the inconvenience — it was the seacock on the head intake — I would deal with it the next day.

For two solid days, I experienced the sailor's version of hot yoga, contorted into shapes and positions beyond all recognition as the Bay's infamous August heat and humidity took its toll. I tried hammers, levers, and every trick I'd ever learned, but I failed to open the seacock. It was as if it was filled with epoxy. I continued battling that valve but gave up after two weeks and we hauled *Entr'acte* two months before we'd planned to.

Fast forward to Arizona, 2016. *Entr'acte* has been hauled across the continent and is stored close to our home, her planned refit well under way. The first job on my list was to remove that seacock and find out what happened. I secured it in a large vise, but no amount of coaxing would move that handle.

This would now be the *third* time this seacock had failed in 15 years. But why this seacock and not any of the other four on *Entr'acte*?

Good intentions

When we built *Entr'acte*, before the advent of ball valves, we installed

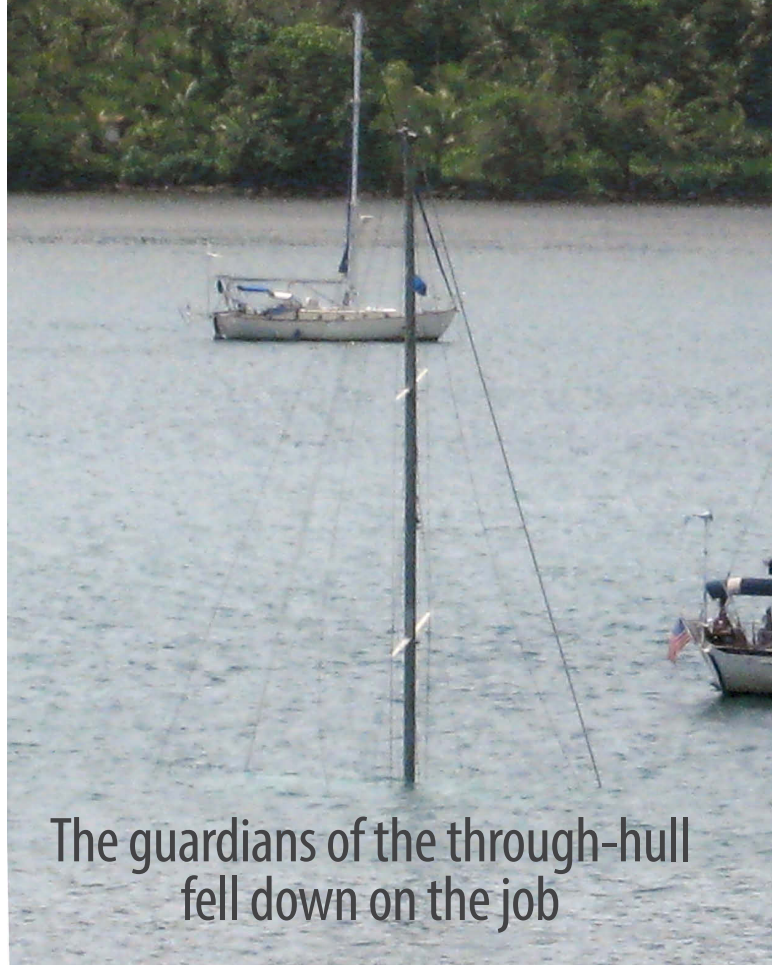
five of the finest tapered-cone bronze seacocks available.

One month before our launch date, we read with horror an article about “the hazards of the tapered seacock,” how it was going to seize solid to become inoperative and tear itself out of the hull when we tried to close it in an emergency. The author admonished everyone to replace these dangerous fittings with the new latest-and-greatest ball valves that were not prone to such catastrophe-causing failures.

Despite having already spent a ton of money, we immediately ran in search of these new lifesavers. They were not to be found anywhere. The hype had evidently outpaced the supply. Dejected, we launched *Entr'acte* and put to sea with the promise that we would install “proper ball valves” at the first opportunity.

Five years and 13,000 miles later, we returned home with all five seacocks still in perfect working condition. We did not sink even once! So much for the horror stories.

When we undertook a subsequent interior alteration, we needed to relocate the head seacock and ... yes, we replaced that beautiful



The guardians of the through-hull
fell down on the job

still-functional tapered-cone seacock with a new ball valve. It boasted a bronze body, a stainless-steel ball riding on Teflon seats, a stainless-steel shaft, and a steel handle. Steel?

We hated it from day one. It was horribly stiff; a real chore to open and close. The manufacturer insisted this was normal and no, unlike our tapered seacocks, handle tension could not be adjusted. Throughout our next long voyage, opening and closing that valve was a burdensome task. Ellen simply could not operate it. Had I become incapacitated when closing that valve



Ed tried ever-longer levers in his attempts to open the ball-valve seacock, but to no avail. He had to disassemble it.



BY ED ZACKO

The submerged mast belongs to a boat that was left on a mooring with all its seacocks open, at left. The old and worn sink-drain hose developed a leak while the boat's owner was on a two-week trip inland to a rain forest.

nut to no avail. During the long layup, the stainless-steel ball and shaft had become so corroded that water flowed past the ball and into the boat via the shaft, even with the valve closed. Had *Entr'acte* been laid up afloat with all the seacocks closed, she would have sunk. We aborted our launching and replaced the valve with yet another ball valve. Considering where we were, I felt lucky to find a valve of any kind.

And now, here we were again, fighting the third "battle of the ball"! What, exactly, had happened?

Insidious corrosion

All three ball valves failed due to the corrosion of stainless steel used in an oxygen-absent environment and in the presence of seawater. Placing stainless steel in an oxygen-absent environment is like giving Kryptonite to Superman. With no oxygen present to maintain its protective oxide coating, stainless steel gradually corrodes, in this case accelerated by the presence of chloride ions in seawater. The metal appears to be superficially perfect until, struck with something hard or stressed in some way, it breaks into pieces.

Studying the ball in the latest offender, I noticed a spiderweb of tiny cracks. I disassembled the valve and was stunned by what I saw.

When I last closed this valve, the ball rotated in the direction of the crack flow. When I attempted to open the valve, the ball rotated against the crack pattern while the rotating shaft

imparted a wedge action on the ball, forcing the pieces apart to jam tightly against the Teflon seat. The more force I applied, the tighter the ball became. Disassembling the valve released the pressure, and what used to be the ball easily fell out into my hand.

What is a seacock?

A seacock is a valve attached to a through-hull fitting. When open, it allows water to pass into or out of onboard systems. When closed, it is the barrier between your boat and the sea. Every through-hull close to or below the waterline should be fitted with a seacock.

Not just any valve is suitable for use as a seacock (see "Valve Varieties," page 42.) To be acceptable to the American Boat & Yacht Council and marine insurers as a seacock, the valve and its installation must meet certain manufacturing standards.

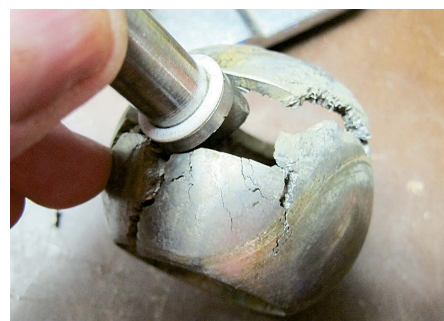
The threads on all through-hull fittings are National Pipe Standard (NPS). A valve designed as a "marine seacock" uses NPS threads that will mate properly with through-hull fittings. The inboard port might have either NPS or NPT threads, depending on the manufacturer and the model.

The threads on all gate valves and on all ball valves not specifically designed as seacocks are National Pipe Tapered (NPT), which, when connected to other NPT fittings, become tighter as the pieces are screwed together. NPT and NPS threads should *not* be

was paramount to survival, *Entr'acte* would now be on the bottom.

Three years into the voyage, the steel handle broke off and I adapted the bronze handle from the late tapered-cone seacock. At the six-year mark, without warning, the valve refused to close. One day it closed smoothly as always, and the next time I tried to close it, the handle and shaft merely spun in a circle leaving the ball immovable. The only replacement we could find was another ball valve.

Several years later, halfway across the Pacific, we were launching after a haulout when the bilge pump activated. Water was leaking profusely through the shaft of the ball valve. I tightened what was supposed to be a packing



When he began to disassemble the ball valve, Ed could see fine cracks in the stainless-steel ball, at left. When he extracted the ball, it fell apart, center. Ed thinks that turning the stud strained the weakened ball, forcing it apart to jam inside the body of the valve, at right.

mixed. The two fittings will indeed fit tightly together, but water will always weep between the fittings, even when the valve is closed. Because of the thread mismatch, the parts will become very difficult, perhaps impossible, to disassemble, especially after a period of several years.

To qualify as a marine seacock, the valve must be made out of the highest-quality and strongest marine-grade corrosion-resistant material. Bronze alloy 85-5-5-5 has always been the standard, although some seacocks today are made of high-strength plastic composites.

Valve varieties

—EZ

Three basic types of valve are used to control the flow of liquids: gate valves, tapered-cone valves, and ball valves. All three valve types can be found in any plumbing supply, hardware store, or marine chandlery. They are available in various grades of stainless steel, brass, bronze, or plastic. All have appropriate applications.



Gate valve

Gate valves are used throughout the plumbing industry. In the 1970s, many boatbuilders used bronze gate valves as seacocks. How wrong they were!

Gate valves are extremely prone to corrosion, stripping, and jamming, and opening or closing them takes several turns of the handle. The American Boat & Yacht Council (ABYC) has long disqualified gate valves from use as seacocks,

but they still abound on older boats. Regardless of quality, gate valves have no place on board a boat. Any competent surveyor will tell you they are not safe.

Tapered-cone valve

The tapered-cone design eliminated all the problems of the gate valve and for more than 100 years was considered the safest for seacocks.

A tapered-cone valve has only two major parts: a tapered plug that fits perfectly into the tapered opening of the body and a nut that draws the plug into the body to create a watertight seal. It has no threads to strip or gates to jam and requires a mere quarter turn to perform its function. If adjusted properly, greased annually, and operated regularly, a tapered-cone valve will last for decades and will not leak whether open or closed.



Ball valve

Inside the body of a ball valve, a ball rotates on Teflon seals. The valve opens and closes completely with only a quarter turn. Ball valves represent a quantum improvement over the gate valve for boat plumbing systems and have become the standard of the boating industry.



It's best if the valve has a broad mounting base that allows the seacock to be through-bolted directly to the hull. The base, set on a backing plate, spreads the load against the hull and also prevents the valve from rotating during use and maintenance. The through-hull fitting is screwed into the mounted valve. It is not considered safe to rely on the through-hull fitting as the sole means of attachment to the hull.

The valve must have NPS threads to correctly accept the through-hull and must require only a quarter turn of the handle to open or close completely.

Whether tapered-cone or ball valve, if a valve lacks any of the above features, it will not be safe for long-term use below the waterline as a seacock.

Seacock savvy

Seacocks, perhaps the most important fixtures on a boat, seldom receive the attention they require. Often, they are installed in inaccessible places, left open and ignored for years until the day a rodent eats through the sink-drain hose, a clamp or pump fails, or a cheap brass fitting finally succumbs to de-zincification (corrosion) and the boat heads for the bottom. If anyone happens to be on board at the time, a simple quarter turn on the seacock will prevent disaster — if that seacock is readily accessible, the valve, of whatever type, has not seized solid from years of neglect, and the handle or the entire valve does not break off.

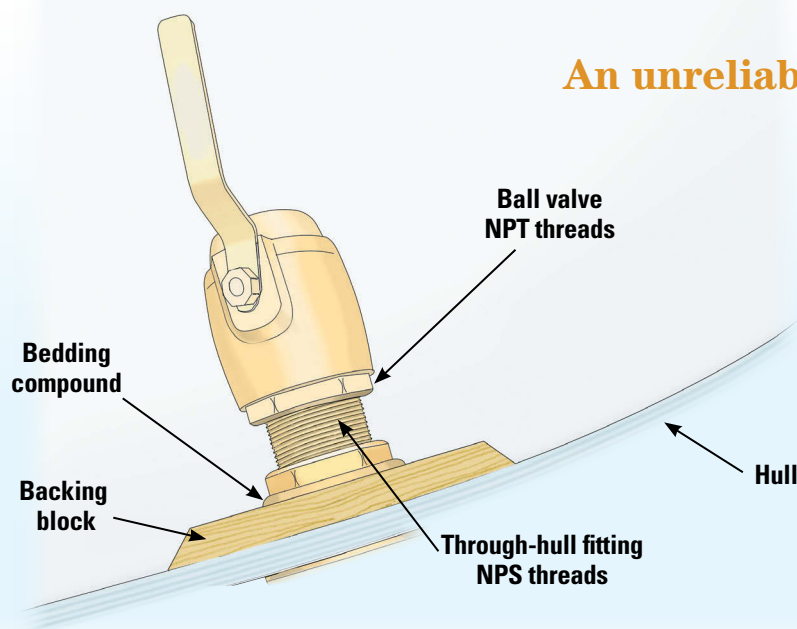
A one-inch-diameter hole one foot below the waterline, such as a small engine intake, will pass 150 gallons per hour, and a bilge pump will only function until the batteries give out. This is not the time to learn that your insurance policy does not cover loss due to rodent damage or corrosion.

Every boat owner needs to know how many seacocks the boat has, where they are located, and what type they are, and should convey that information to everyone on board. A prudent owner will also test the seacocks regularly to ensure they are functioning properly.

Seacock maintenance

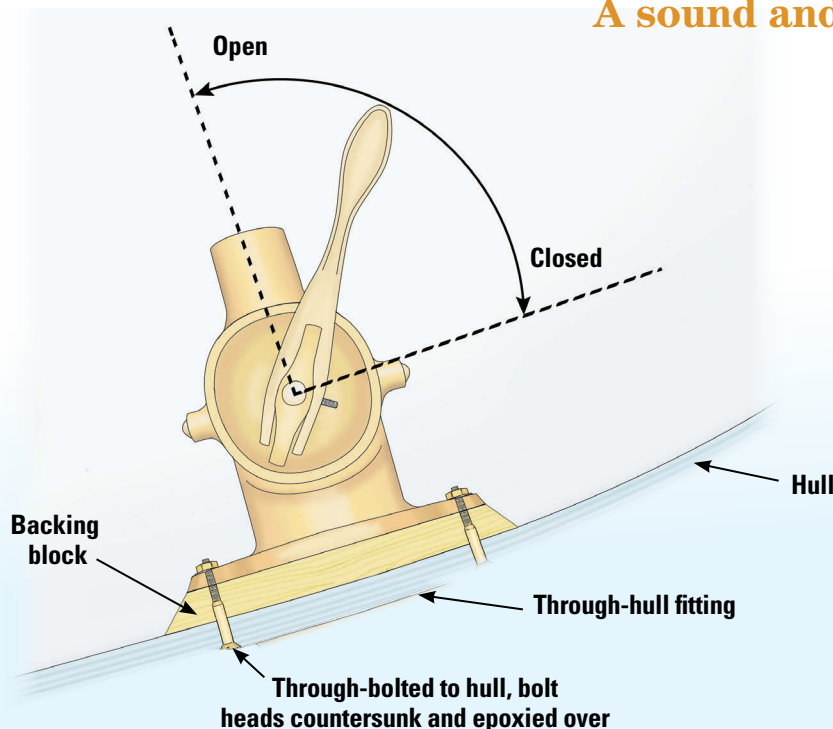
Seacocks live in an extremely hostile environment and should be scheduled for regular maintenance. Every two years, we disassemble, clean, grease, and adjust our seacocks so they work

An unreliable installation



Using a ball valve with NPT threads on a through-hull fitting with NPS threads is not an acceptable assembly for a seacock. Also, in this seacock installation, the valve is supported by the through-hull fitting only, and is not fastened directly to the hull.

A sound and reliable installation



The wide base integral to the seacock carries any load on the seacock to the hull. The through-bolts prevent the assembly from twisting when the hull flexes or the handle is turned. The valve, not the through-hull, is the ultimate barrier between the sea and the boat.

smoothly. We regularly cycle them — turn the handle from open to closed and back several times. When *Entr'acte* is afloat and we plan to be away overnight or for more than a day, we close all the seacocks.

A tapered-cone seacock is very easy to disassemble and maintain (see “Servicing a Tapered-Cone Seacock,”

page 45). It is usually possible to do all this maintenance with the seacock still mounted in the boat — but with the boat out of the water!

Ball valves have more parts and are a bit more complicated. They are manufactured by several different companies, each with its own philosophy on construction, materials, and

maintenance. While the seacocks all have bronze bodies, the choices of ball and shaft materials differ. Groco uses stainless steel; Apollo, chromed bronze; Buck Algonquin, chromed brass (below the waterline?); and Perko, a hard polymer ball. Apollo, Groco, and Perko allow for disassembly and offer rebuild parts



A tapered-cone seacock has very few parts, at left, all of them high-quality bronze. Ball valves tend to have more parts, at right. While some ball-valve manufacturers do offer rebuild kits, the valves can be difficult to disassemble when they are in place in the boat.

that include balls, shafts, seats, and packings. Buck Algonquin does not.

Make no mistake here, your chances of disassembling any ball valve to replace internal parts are slim while that valve is attached to your hull. Disassembly usually requires a solid vise, a large pipe wrench, a long lever, some swinging room, and sometimes a little heat to break the top nut free. It's best that the valve be removed from the boat for servicing.

Our first ball valve was not designed to be maintainable. We could disassemble the valve but could do nothing about what we found inside.

The Apollo marine ball-valve seacock has the right combination of features for me. It has a wide-flange body made of 85-5-5-5 bronze, a bronze ball riding on Teflon seats, and a bronze stem. It incorporates a side plug for winter draining and a separate lug for a bonding strap. The handle and nut are stainless steel. There are no mixed metals in critical places. Apollo makes valves for a variety

of applications, but only the marine ball valves are suitable for seacocks.

If I were installing ball-valve seacocks for a multi-year cruise, I would assemble a complete rebuild kit (ball, stem, seats, and shaft packing) for each size of seacock on the boat. It might seem a bit expensive, but when, not if, one of these fittings fails in some remote part of the world, I want to be able to help myself.

The case for bronze

In my opinion, a brass valve or fitting has no place on a boat. Due to its high zinc content, the brass will de-zincify (the zinc will corrode away), weakening the fitting, which could fall apart and sink your boat.

Many sales people are unaware of the difference between brass and bronze and fewer still are conversant in the various bronze alloys, only a few of which are suitable for marine use below the waterline. Here are a few that are commonly encountered:

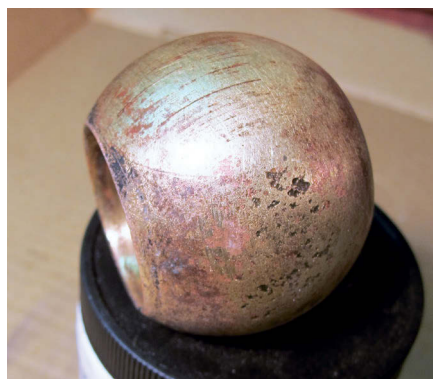
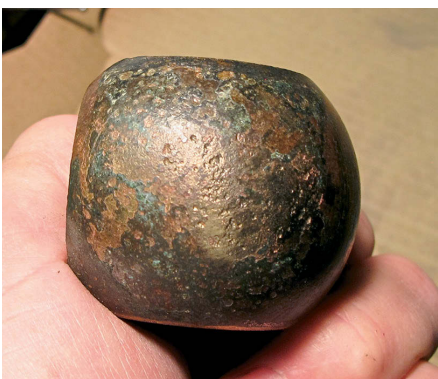
85-5-5-5 (aka 85-three-five) – The alloy most widely used for seacocks, it contains only 5 percent zinc and is the least prone to de-zincification. (Confusingly, it's also known as leaded red brass.)

Silicon bronze (Everdure) – This is the finest high-strength alloy for boat fastenings. It has also been used for seacocks.

Phosphor bronze – This alloy machines easily and is mainly used for springs and bushings, but not for valves.

Naval bronze – Despite its name, this alloy contains an astonishing 39.2 percent zinc. Used to manufacture military grave markers, it would not be my choice for use below the waterline.

For older bronze seacocks and through-hull fittings, a simple test for de-zincification is to scrape the surface down to bare metal with a sharp knife.



The reddish color on this brass or bronze ball from a ball valve, at left, is a sign of de-zincification. Pitting can also occur, center, when a ball valve is made of a mixture of metals. Polishing a ball might extend its useful life, at right, but it will eventually need replacing.

Servicing a tapered-cone seacock —EZ

Routine maintenance

Remove both nuts, give a slight twist or light tap with a mallet, and out comes the cone. Clean all the parts with kerosene, apply a new coat of grease, reassemble, and adjust. Doing this every two to four years should suffice.

If the mating surfaces become worn and permit seepage, a simple lapping procedure with a special lapping compound will solve the problem in all but extreme cases.

Lapping

Disassemble the seacock and clean all surfaces well. Rotate the plug against a straightedge and look for gaps. In all but the most severe cases, gaps can be lapped out with valve-grinding (lapping) compound and the plug restored to like-new condition. If you see any cracks, replace the seal.

Spartan Marine sells a lapping compound and grease formulated specifically for its seacocks, but you can also purchase lapping compound from most auto-parts stores. Choose the finer grits available (320/400/600).

Coat the plug with lapping compound, insert the plug into the body, tighten the nut to achieve some tension while allowing the plug to turn. Rotate the plug completely around (not back and forth) twenty rotations. Clean all surfaces and apply the straightedge.

Repeat this process (turning the plug in the opposite direction) until the plug appears true, but don't overdo it. You can always remove more material but you cannot put it back.

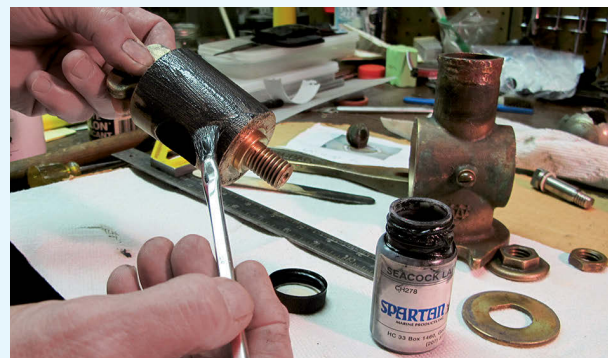
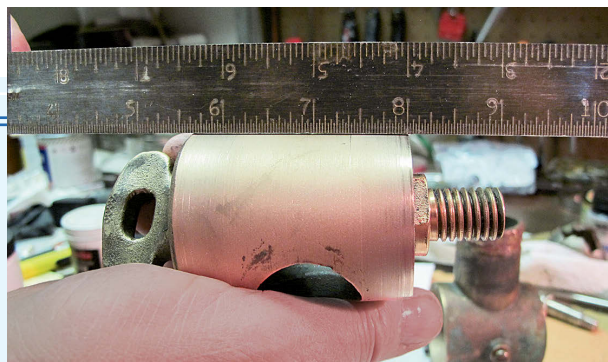
Thoroughly remove every trace of the compound, then apply grease to the mating surfaces. Spartan's specially formulated thick seacock grease is preferred over automotive grease. This job is easier if you remove the drain plugs and temporarily install zerk grease fittings. Be very careful to match the threads. Replace the drain plugs when finished.

Reassemble the valve and tighten the adjusting nut until it requires a reasonable effort to cycle the handle. Set too loose, it could close due to vibration, disastrous if it is your engine intake!

Check for leaks

The seacock must be watertight whether open or closed. To test your work, close the seacock completely. (Unlike on ball valves, there might not be a handle stop and the handle could pass the fully closed point, allowing water to pass.) Remove the drain plug(s).

Attach a 3-foot section of clear hose and support it in a vertical position. Fill it with water, and watch what happens. If the hose drains with the valve closed, continue lapping. If the hose remains full and nothing comes out of the drain plugs, you're all set.



From the top . . . Place a straightedge along the cone and, while rotating the cone, look for gaps. Lap the cone until the gaps disappear. Lapping compound, like sandpaper, comes in a variety of grits, from coarse to very fine. When done, coat the cone with grease — thick grease specifically formulated for seacocks is preferable to thinner wheel-bearing grease. Grease seacocks periodically. To make the job easier, temporarily replace the drain plugs with zerk grease fittings. Be very careful to match the threads. Replace the drain plugs when finished.



Never again! During the latest refit of *Entr'acte*, Ed replaced the one ball-valve seacock with the original tapered-cone seacock.

Resources

Spartan, in the US, and Blakes, in the UK, are the only companies that still manufacture a quality tapered seacock.

Blakes Lavac Taylors

www.blakes-lavac-taylors.co.uk

Spartan Marine

- Tapered-cone seacocks and bronze hardware
- Seacock-specific lapping compound and grease

www.robinhoodmarinecenter.com/spartanmarine

Apollo ball valves

www.apollovalves.com

Buck Algonquin

Bronze ball valves and other bronze boat fittings

www.buckalgonquin.com

Groco

Bronze ball-valve seacocks and marine hardware

www.groco.net/products/valves-seacocks

Perko

Ball-valve seacocks

www.perko.com

Midway USA

Lapping compound kit — 220/320/600 grits

www.midwayusa.com/product/486249

Auto-parts stores

Valve-grinding compound

Bronze alloys

Discussion of brass, alloys, and de-zincification

www.proboat.com/2012/07/beware-the-brass

If scraping reveals a bright golden color, the fitting is safe. A rusty red color indicates de-zincification, and the fitting should be replaced at once.

A dark gold color is not necessarily bronze. Brass, especially if it has been on the shelf for years, can look much like bronze.

I will never install an all-stainless-steel seacock on my boat. All its internal components will live in a permanent anoxic environment. I have seen absolute horrors with stainless-steel anchors and chain.

Conclusions

When buying or replacing a seacock, the choice is between the tapered-cone valve and the ball valve. Each type has its proponents and detractors. Whichever you choose, you must know just what you are purchasing. For some assurance of quality, look for the Underwriters Laboratories' logo. This is no place to economize.

If installing a seacock for a new onboard service, make sure you will be able to maintain it. Locate it where it is easily accessible for operation and maintenance, and install it properly (see diagrams on page 43) to avoid problems in the future.

Regularly cycle your seacocks by moving the handle from open to closed and back several times.

While on board, close the seacocks of systems that are not in use. If the boat will be unattended for more than a few hours, close all the seacocks.


During haulouts, or at least every four years, disassemble and inspect each seacock. At the very minimum, remove the hose fittings and look inside with a bright light. If you see any hint of cracks in the ball, replace the ball and any stainless-steel components.

Layups are deadly. More deterioration and corrosion can occur during a

six-month layup than after several years at sea. Before launching, grab each seacock and shake it. Tap it lightly with a hammer. Better that something break while the boat is on the hard than after it's launched.

Our tapered seacocks have been easy to maintain and are still serviceable after 37 years. But I have no illusions. Every boat part has a life span and nothing lasts forever. Nothing is maintenance-free. Even the highest-quality seacocks will let you down if neglected.

In our experience, the working life of a ball-valve seacock with a stainless-steel ball (the only type available to us at the time we needed it) is limited. Our average has been six years, despite vigilance and regular cycling and cleaning. In all three cases, they worked until they didn't, and they all failed without any warning.

After our third failure, I dug into my treasure trove of bits and pieces accumulated over the years, found our original tapered-cone seacock of yesteryear, cleaned, lapped, and tested it, and reinstalled it. I feel confident that we will never have to worry about "losing our head" again. 

Ed Zacko is a Good Old Boat contributing editor. Ed, the drummer, and Ellen, the violinist, met while playing in the orchestra of a Broadway musical. They built their Nor'Sea 27, Entr'acte, from a bare hull, and since 1980 have made four transatlantic crossings and one transpacific crossing. After spending a couple of summers in southern Spain, Ellen and Ed recently shipped themselves and Entr'acte to Phoenix, Arizona, where they are refitting Entr'acte while maintaining a busy concert schedule throughout the Southwest US. Follow them on www.enezacko.com.

Value-priced chartering

An older boat is good enough for a crew of older sailors

BY ROB MAZZA

PHOTO BY BOB LEVO



PHOTO BY BOB LEVO



PHOTO BY ROB MAZZA

This adventure started just like our last one ("Narrowboat Adventure," July 2016), over a bottle of wine in the cockpit of John and Maureen Vickers' Catalina 34, *Classy Lady*, moored at the Royal Hamilton Yacht Club in Ontario. This time, four couples were present — the aforementioned Vickers, Doug and Janice Clark, Bob and Debbie Levo, and Za and myself. We were discussing what a great time the Vickers and the Mazzas had on the narrowboat in England, which led to exploring possible future adventures. Bob and Debbie are relatively new to sailing and have never chartered. Za and I chartered a year ago in St. Martin but, like the Vickers, our previous British Virgin Islands (BVI) charter was well over 20 years ago. Doug and Janice had sailed with friends in the Caribbean, but had only visited the BVI by cruise ship. Wouldn't it be great, we said (pouring more wine), if we all chartered a boat this coming winter in the BVI?

But with what charter company? In monitoring the C&C Mailing List chat line, I had seen positive references to Conch Charters, based in Road Town, Tortola. Conch, we found, charters boats that are older and generally more affordable than those in the larger fleets. We had a very positive

experience the year before with a similar company in St. Martin, St. Martin Yacht Charters.

With four couples demanding four private cabins and four heads, the only real choice was a 42-foot catamaran. Doug's tightly scheduled chemotherapy treatment allowed time only for a one-week charter. We all agreed that was the most time we might want to spend with each other anyway, so the die was cast. But not long after we'd arranged a one-week charter in the BVI in February on a 2007 Leopard 42 catamaran named *Santa Cruz Blues*, the plan was threatened. A change in Doug's treatment schedule would prevent him and Janice from joining us for the charter.

What to do? To invite another couple to join us would have felt like a betrayal of Doug and Janice, so we decided to press on as a party of six rather than eight and have Doug and Janice join us vicariously. John found the perfect photo of Doug and Janice sitting in the cockpit of *Classy Lady*, which was more than fitting, since that is where this adventure originated. A quick trip to Staples to have the photo blown up

Absent friends Doug and Janice shared libations with the crew in Leverick Bay, top left. The Leopard 42, *Santa Cruz Blues*, had a generously sized cockpit and a high cabin house, top right. *Santa Cruz Blues* stretched her legs on the way from Virgin Gorda to Anegada, above.

to life size, and careful trimming with scissors, produced a likeness that could be easily rolled up and transported for inclusion in group photos during the charter. So the Clarks came with us on this adventure in more than spirit.

Diminished agility

I should mention that the three remaining couples on board were hovering around 70 years of age, and none of us was as nimble as we once were. I was suffering from rotator cuff issues in both shoulders and John's balance was sometimes challenged.

Bob was the only male participant with no apparent age-related issues. So, in that respect, the choice of a catamaran had its pros and cons. The biggest pro, of course, was private cabins and heads for each couple. Next came the generous sizes of the cockpit and saloon, although we spent very little time in the saloon. Another plus was the maneuverability and redundancy

offered by a diesel engine in each hull.

However, while the catamaran provided generous deck and cockpit areas, we were surprised by the number of different levels involved in the cockpit and interior. We seemed to be constantly stepping up or down, and sometimes stumbling to the next lower level. The other complication with the cat was the obscured view forward from the cockpit, and the fact that the cockpit was always in the shelter or vacuum under the house top. Without standing on a cockpit seat, the only clear view forward was from the elevated helm station. We saw on many newer charter cats, both sail and power, that the helm station was even higher in the form of a flying bridge, further isolating the helm from the cockpit.

Welcome to the islands

On arrival at Conch Charters, we were walked through the boat and given a detailed and informative chart briefing. We had ordered our provisions in advance and they soon arrived in cardboard boxes. The boxes themselves, and all cardboard, were strictly prohibited aboard, and it was while unpacking them we had our first encounter with island life. Debbie, who had volunteered to organize the provisioning, noticed that, in a couple of cases, what we ordered wasn't actually what we received. Instead, the equal dollar value of other "like products" had been substituted. That is, instead of receiving the fine Brie and Camembert cheeses we had ordered, we had copious quantities of sliced cheese, and instead of the four bottles of red wine and three of white, we had six of less expensive reds and only two whites. But with Conch Charters' gift bottle of local rum, we now had three bottles of rum to get through, so we quickly accepted these minor inconveniences and pressed on.

Because the boat was older, we soon found some minor deficiencies. The lack of a working anchor light meant that we would be picking up mooring balls for the cruise, and the lack of a working knotmeter meant that we were often guessing at speed. The screen on the autopilot was undecipherable, so we hand-steered all week. Still, that



PHOTO BY ROB MAZZA

Marina Cay, with its Pusser's Store and dinghy dock, above, received a high rating as a mooring. At sundowner time, it was surprising how quickly a table would fill with beverages, at right.

was far from the end of the world when sailing in paradise.

We faced our most serious challenge when the starboard engine shut down while powering upwind in heavier seas on our way to Virgin Gorda. After we picked up our mooring, maneuvering on one engine, we called Conch Charters on the cell phone they had provided. A service crew from Leverick Bay, in Gorda Sound, showed up and quickly remedied the problem by cleaning the fuel filter, which was gummed up with crud from the agitated fuel tank.

When we'd expected to be eight on board, we had requested a larger tender, which came with a 30-horsepower manual-start outboard motor. Our instructions were to choke the outboard before starting, which was no surprise to owners of Atomic 4s. When we reached our first anchorage and were preparing to go ashore, we could not get the motor started no matter how hard we tried. My rotator cuff injury and John's balance issues left it to Bob's mighty right arm to pull the starter cord on that beast of an outboard, with me playing the choke and throttle as necessary. The pungent smell of gas confirmed we had flooded it.

Another call to Conch Charters resulted in a service boat making the 40-minute high-speed run from Road Town to Leverick Bay with a replacement outboard on board. Before switching the motors, their outboard service specialist stepped aboard our dinghy. With one mighty pull, the engine burst to life. What had he done that we hadn't?

"Never choke this engine!" was his adamant advice. "If it doesn't start after

Older charter boats —RM

When I brought up the subject of chartering older boats with Cindy Chestnut, the Canadian who co-owns Conch Charters with her husband, Brian Gandey, she was very hesitant about the perception of Conch Charters being associated only with older boats. She pointed out that they also have boats in charter that are only one year old. However, she does concede that, when they started 30 years ago, that was the business model. She now sees Conch Charters as primarily a charter broker, with its boats being privately owned and the owners receiving a percentage of the charter fee. Owners are responsible for all maintenance costs and slip fees.

Are there risks involved in chartering an older boat? When I posed that question to the charter broker we used to arrange our St. Martin charter the year before, he asked, "What do you own now?"

When I told him I owned a 46-year-old C&C, he replied, "Oh, so you are used to things sometimes not working perfectly and having to make some of your own minor repairs?"

He then pointed out that we should have no problems at all chartering an older boat that would be, in fact, considerably newer than our own boat! He was right. On both these charters, there was some equipment that sometimes was out of commission, but our philosophy was that, if the engines, heads, stove, and dinghy all worked, we could live with the rest! Not a bad exchange, we agreed, for a lower charter fee.



four pulls with no choke, then choke it just slightly, and when it starts to cough, push the choke in immediately." They then roared off in their boat as quickly as they had arrived, and we never had another problem with the engine.

Coping with moorings

A big difference we noticed this time in cruising the BVI from our experience 20 years previously was the great proliferation of mooring balls. Moorings better protect the coral from damage. They also give charterers peace of mind and allow more boats in an anchorage by reducing swing radii. With no anchor light, we had no choice but to pick up mooring balls, but that really was not a problem as, on the whole, mooring balls were always available when we needed them. Mooring balls cost \$30 per night and the fees are collected either ashore or by a visiting powerboat.

As on the narrowboat, our roles on *Santa Cruz Blues* quickly became defined. John always handled the helm under power when picking up or dropping a mooring, with Bob to port and me to starboard on the bow. Following advice picked up from Conch Charters at our briefing, John would maneuver the starboard hull up to the trailing pendant on the mooring ball. I would pick up the pendant with the boathook, and Bob would lead the end of the starboard mooring line through the thimble on the mooring pendant and hand it to me while I dropped the boathook on the trampoline. Bob would then lead the port mooring line through the thimble and take the end back to the port cleat, I would lead the starboard line to the starboard cleat,

and we would adjust the lines so as to locate the mooring pendant on center at about 45 degrees from the starboard and port sides.

We did miss our first mooring on the first pass, but we soon became pretty adept at picking up moorings, even under one engine. Once secured, we would sit back and watch others perform the same maneuver with various degrees of success. When leaving the mooring, John would reverse with one engine only, swinging the boat away from the ball so we could proceed ahead once we'd dropped the pendant.

Another big change we observed from our previous charter was the large number of catamarans in charter service. I would say that about 60 to 70 percent of the boats in any mooring field were catamarans, some of them quite large.


Adapting to a cat

We were surprised at how easily we made the transition from our 27- to 34-foot monohulls to a 42-foot catamaran. We certainly didn't push it, never actually sailing upwind, relying on our twin diesels instead. In the BVI, the winds blow consistently out of the east at about 15 to 20 knots. Some will argue that the less-dense warm tropical winds pack less punch than cooler northern winds, but 15 to 20 knots still kicks up some sea, so in traveling east we tended to proceed under power. The first time we actually raised the mainsail was on the beam reach from Gorda Sound to Anegada on the fourth day of our charter, and even then we played it safe with a single reef. We did raise a full main on the southerly course from Anegada to Marina Cay the next day,

and calculated a 9-knot average speed. A cat's motion is distinctly different from that of a monohull, but it was not unpleasant, and we adapted quickly.

In our provisioning, we anticipated having breakfast and lunch aboard and, except for our first night, eating dinner ashore. This worked out well. We made the decision to eat dinners ashore primarily so we'd get a better feel for the islands, but also to simplify provisioning and avoid having to prepare evening meals. We always had copious quantities of perc'd coffee each morning with breakfast, and lunches often featured our endless supply of sliced cheese.

Dinner reservations were never a problem although, with meals costing on average more than \$100 per couple, dining ashore was not cheap. We all agreed that our most enjoyable meal was lunch at the Top of the Baths restaurant, but dinners at Manchioneel and Leverick Bays were close seconds. Generally, we were all in our cabins by 9:30 at night, after an exhausting day of sailing, swimming, and dining.

So, what did this sextet of pending septuagenarians learn from this return to the BVI after 20 years? It's still a tropical paradise. As one of our party pointed out, the British Virgin Islands are far less commercially developed than the US Virgin Islands, with fewer large US hotel chains building mammoth resorts. Instead, the BVI has a large number of mobile hotel rooms in the form of a fleet of charter boats. The islands cater to them very well indeed. Would we go there again? In a heartbeat! 

Rob Mazza's bio appears on page 15.

Conch Charters post-hurricanes

—MR

In the summer of 2017, Hurricanes Irma and Maria struck successive devastating blows to the Virgin Islands. For several weeks, the islands were virtually shut down.

As of press time, the Virgin Islands were rallying and rebuilding, with lots of support from on and off the islands. Conch Charters in particular delivered the good news that the entire staff of the family-run business was safe and accounted

for. They've cleared the rubble from their property and are rebuilding roofs and other infrastructure. A GoFundMe campaign set up to benefit Conch Charters' employees had already exceeded the \$50,000 target. Boats were returning to the docks and getting surveyed.

Conch Charters planned to cast off its first post-storm charterers in January 2018. For details, visit conchcharters.com.

Portlight-mounted ventilator

It keeps the air fresh
in a closed-up boat

BY MATT KOCH

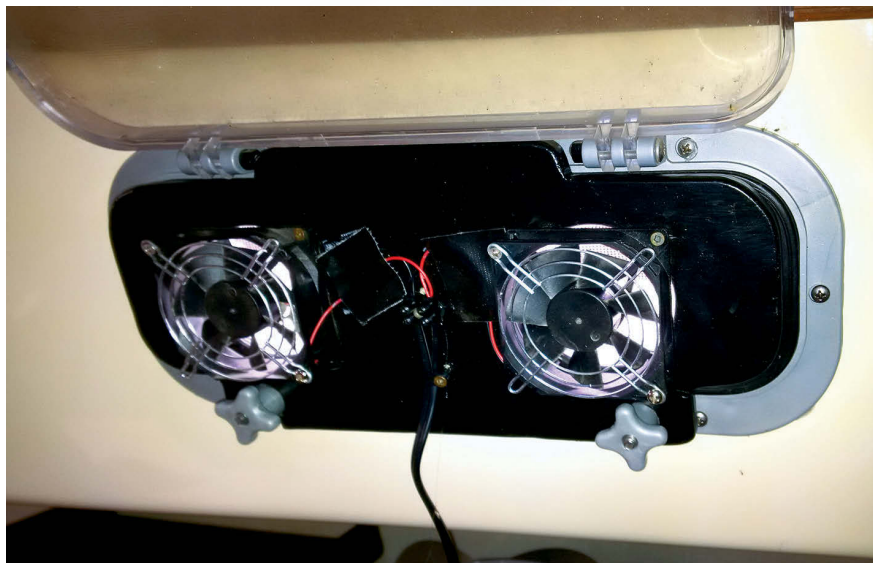
When cleaning our good old Island Packet 31 shortly after purchasing her, I noticed a little white mold on some of the wooden interior surfaces. This I wrote off to the fact that the boat had been on the hard for two years and had not been looked after as well as a boat that sees regular use. I assumed that a good cleaning would remove the mold, just as it had on our previous boat.

As usual, I would be proven wrong.

Clean-up done, we delivered the boat home to Montreal and had a great time using it. It was not long before we saw the mold returning in a few spots here and there. This time, we hit it with bleach, but that only delayed the return of the white pest.

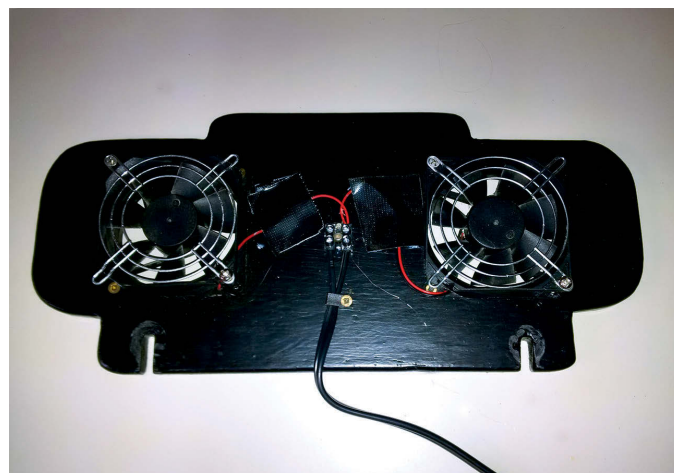
At about the same time, my daughter developed an allergy that would affect her while on the boat. Suspecting the mold as the cause, we used a variety of store-bought mold remedies and steam-cleaned the cushions. Again, we enjoyed only temporary relief from the mold.

When we were shopping for boats, we had been mightily impressed that the Island Packet designers had thought to include nine opening ports and three opening hatches in a 31-foot boat. They provide plenty of ventilation when the boat is in use but, we realized, none at all when it's closed up and not in use. We considered adding solar fans or Dorade boxes, but dismissed both options as ugly and unnecessary deck clutter.



Messing around in my workshop one day, I noticed two small 12-volt muffin fans of the kind used to cool the power supply in a PC tower. I reasoned there had to be a way to use them to ventilate the boat while it's unattended. Back at the boat, I took a closer look at our portlights, which are the original 1985 Beckson ports. The lenses are secured with two thumbscrews at the bottom and, when opened, leave a nice gap above the gasket.

I made a template from cardboard to fit in front of the opening. I gave it a tab that slots into the gap at the top and two tabs and slots at the bottom to fit around the thumbscrews. When I was happy with the template, I transferred the shape to a piece of ½-inch plywood, marked where the two fans would be mounted, and cut holes for them. I painted the plywood black and, using brass screws, mounted the fans so they would blow air out of the boat. I connected the wires from the fans to a length of wire with a cigarette-lighter plug on the end. After replacing the 5-amp fuse in the



To ventilate his boat when it's unattended and prevent mold from forming in the interior, Matt put two muffin fans on an insert that fits a Beckson opening portlight, at top. The portlight's design, at left, allows the insert, at right, to be secured with the thumbscrews.

cigarette-lighter plug with an appropriately sized 1-amp fuse, I was done. I took the new fan insert to the boat and installed it in the quarter-berth portlight, which opens into the cockpit and is conveniently close to a 12-volt outlet.


Leaving the fans on 24/7 has proven not to be an issue from a power-consumption perspective, as the solar panel seems to keep up very well. Another option would be to connect the shorepower and keep the batteries up using the battery charger. Since 12-volt muffin fans are readily available for \$10 or less, this a low-cost solution to a common problem on unattended boats.

Because the portlight installation worked so well, I made a "winter" hatchboard with two 120-volt muffin fans that



The fan assembly in the portlight worked so well that Matt built two fans into a hatchboard.

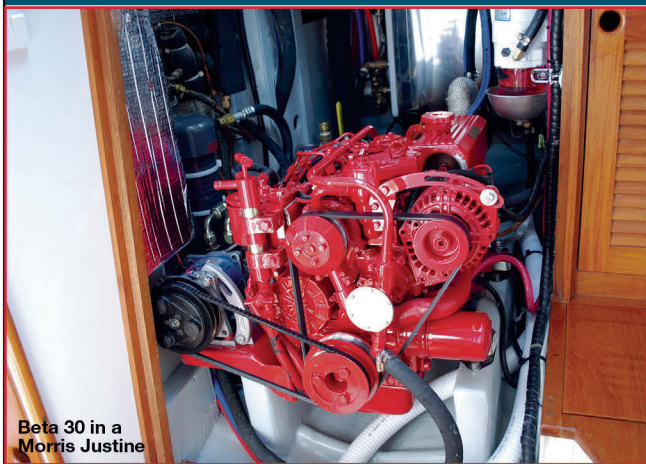
run full-time while the boat is on the hard. They have effectively eliminated that musty antifreeze smell often encountered when a boat is opened for the first time in the spring. We are lucky that the marina has no issues with boats being plugged into shorepower during the winter.

Installing the fans has pretty much resolved the mold issue, and my daughter is now unaffected by her allergies while on board the boat. 

Matt Koch has been a sailor since the age of 6, when his father bought his first boat. Matt met his wife, Carolyn, 28 years ago at their local sailing club and they have been sailing together ever since. They sail their Island Packet 31 with their two daughters (ages 21 and 18), on Lac St-Louis in Montreal, and make an annual vacation pilgrimage to the Thousand Islands and Lake Ontario.

BETA MARINE

RELIABILITY AND MORE!



Beta 30 in a Morris Justine

Engine Model

Beta 14

Beta 16

Beta 20

Beta 25

Vessel

Albin Vega
Hunter 27 Cherubini
Catalina 30
Tartan 30
Cape Dory 28
Catalina 30
Contessa 32
Island Packet 27
Pearson Vanguard
Alberg 35
Morgan OI 33
Alberg 37
Pearson 35

Engine Model

Beta 30
Beta 38

Beta 43

Beta 50

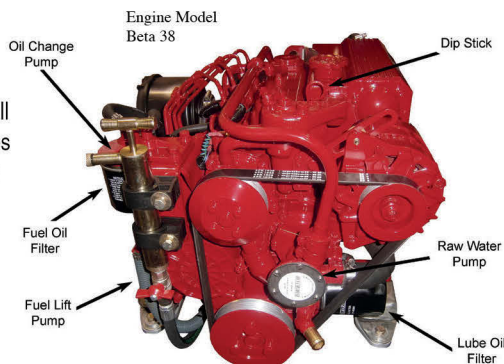
Beta 60

Vessel

Catalina 36
Sabre 38Mk1
Valiant 37
Westsail 32
Hinckley B40
Valiant 40
Bristol 41.1
Morgan 41 OI
Morgan 45
CSY 44

Some of our installations

More than just a reliable engine...all of our new engines are equipped with a serpentine belt drive system for the alternator at no extra cost!



What a concept! Engineered to be serviced easily

Marine engines using Kubota Diesels from 13.5 to 100 HP. Including Atomic 4 replacements and saildrive engines.

Quiet diesels with clean emissions that meet current EPA requirements, without the need for computer controlled common rail complexity.

BETA MARINE US Ltd.

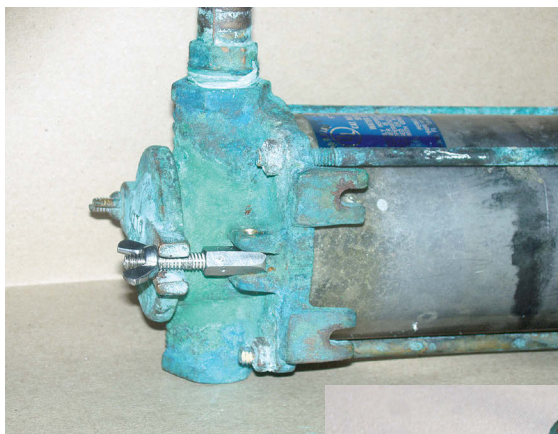
PO Box 5, Minnesott Beach, NC 28510
877-227-2473 • 252-249-2473 • fax 252-249-0049
info@betamarinenc.com

www.betamarinenc.com

A new screen and closure

Extending the life of an engine's raw-water strainer

BY JIM SHELL



The Perko intake water strainer that feeds the engine on *Phantom*, our Pearson 365 ketch, was on its last legs. A hinged bolt was missing and the screen was defective. The replacements for those parts are expensive. My father was good at making repairs of this nature and I, like him, found a way to fix these problems quickly and inexpensively.

I began by making a replacement hinge bolt from a 1½-inch ¼ x 20 stainless-steel machine screw and a ¼ x 20 coupling nut I found in my fasteners bin.

First, I sawed off the bolt's head and filed the end smooth. I then threaded the coupling nut along the bolt until the total length was correct and, using a center punch, peened the bolt into the coupler so it could not unscrew. After marking the coupling nut with the position of the hinge pin, I used a drill



Using the remaining hinged bolt as a pattern, above, Jim manufactured a new one to replace the missing one, at top.

press and drilling oil to bore a slightly oversized hole through the stainless-steel nut. Next, I filed and ground the coupling nut to a shape that would fit into the hinge-pin slot on the



strainer and, after aligning the new hinge bolt, inserted the hinge pin.

The strainer's screen basket had developed several ¼- to ½-inch ragged holes and a liner would be an adequate repair. Plastic needlepoint canvas, available at sewing and craft shops, is a very good material for use as a screen. It's sturdy and comes in a variety of mesh pore sizes. An 8 x 10-inch sheet cost me a dollar or so.

The basket in the strainer had several holes in it caused by corrosion, above. Jim made a sleeve out of plastic mesh to go inside it and also made a basket to keep on board as a spare, at right.



After measuring the circumference and height of the basket, I cut a piece of the plastic mesh to the same height and 1.5 times the circumference. I then removed the bottom plug from the strainer basket and inserted the tightly rolled mesh into the basket. After adjusting the mesh to ensure it covered all the corroded holes, I replaced the plug.

To prepare for the time a liner does not suffice and the metal basket needs replacing, I sewed a complete basket from the plastic mesh. I cut a rectangle of the mesh as tall as the basket and as long as the basket's circumference plus ¼ inch for overlap. I wrapped the mesh around a 1-inch dowel and tied it with light cotton string, then used a heat gun to permanently deform the mesh into a roll that resembled the strainer basket.

I used a sturdy nylon string to sew the sides of the basket together, and sewed in a loop of mesh to function as a bail. I closed the bottom by making a mesh-like darn similar to the bottom plug in the original basket. I sewed an additional darn onto the upper neck of the basket to create a tighter lip seal to aid in directing the intake water into the basket. ⚓

Jim Shell and his wife, Barbara, sail their Pearson 365 ketch off the coast of Texas.



Quality Marine
Equipment Since 1981

Retrofit
NON-SKID
Made
EASY

See More At
www.kiwigrip.com



PYI Inc. | 12532 Beverly Park Road, Lynnwood, WA 98087 | 425-355-3669 | www.pyiinc.com

Boat cards for *Bright Moments*

Lasting social mementos
created with imagination
and recycled sailcloth

It wasn't until my partner, Jim, and I made our first trip to Mexico on our Outbound 46 that I was introduced to boat cards. Most cards feature a lovely photo or graphic of the boat or its owners along with names and contact information. In the cruising community, they're commonly exchanged and are a good way of remembering the names of the people you met last month who are anchored next to you this morning. So many sailing interactions are transient, and cards make it easy to exchange information we'd be otherwise scratching on napkins or entering into our phones.

I'm a visual artist specializing in textiles, and I knew I wouldn't be satisfied with the standard photo-on-card-stock approach. Some retired small-boat sails had recently found their way into my studio, and I began thinking about making our cards out of sailcloth. The fabric is durable, water resistant, and thematic, and repurposing the old sails appealed to the recycler in me. But would ink stick to that tough, slick cloth? I had to try.

First, I stretched a large piece cut from a sailing dinghy's old jib (approximately 3-ounce white sailcloth) over a 4 x 8-foot metal frame. Then, using a selection of décor fabric paints in red and yellow hues, I mixed an intense sunset-orange color. Orange fits with our boat's name, *Bright Moments*, and matches our cabin interior. Watering down the paint to the consistency of dye encouraged the fabric to absorb the color.

To reflect the infinite ways in which the sailing life can be embraced, I wanted each card to be a little different. I applied the dye with a large brush and pushed it around on the slippery fabric surface with a water-soaked second brush to create variations in color saturation. While the surface was still wet, I sprinkled it randomly with coarse pickling salt. The large salt crystals drew in the moisture around them, creating




BY LINDA HAWKE

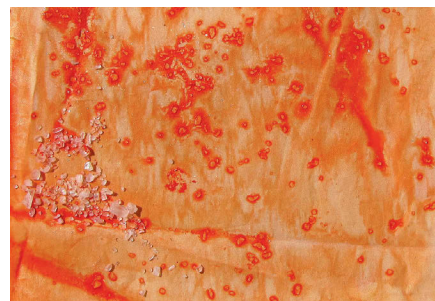
an organic stippled look and adding another layer of thematic connection.

After a couple of days, everything was dry enough for me to shake off the salt. I ironed the cloth at the medium setting for three minutes per each 18-inch-square area to heat-set the color. In the meantime, I typed my boat-card text on the computer in the standard business-card format, 10 to a page. When the fabric was ready, I cut it into 8½ x 11-inch sheets.

Fingers crossed, it was time to print. Using a glue stick along just the leading edges, I glued each hand-dyed fabric page to a standard letter-sized sheet of copy paper, then trimmed off all the loose threads. These steps helped the fabric pages run through my old HP inkjet printer without jamming. I hand-fed each sheet, and the printer successfully printed the text directly onto the dyed fabric. I removed the paper backing from the fabric sheets before the glue had a chance to set. Once the ink was dry, I cut out the individual cards using a hot soldering iron, which left crisp non-fraying edges.

We've been giving out these cards for seven years and are gratified whenever someone stops to enjoy the silky feel of the cloth between their fingers. Our bright boat cards are tactile reminders, not only of our names and email address, but of *Bright Moments* herself and the people who sail her with resourcefulness, creativity, and attention to little things that have big meanings. 

Linda Hawke is a visual artist who discovered sailing in the unlikely city of Calgary, Alberta, Canada. She lives aboard Bright Moments with her significant other, Jim. They are currently cruising in the South Pacific.



Linda went a little further than most to create distinctive boat cards for *Bright Moments*, at top. Using a miscellany of artists' tools and supplies, at left, she first tested ways to apply dye to sailcloth, center. Coarse pickling salt concentrated the moisture and color, at right.

continued from page 7

An alternative to an alternator?

I read with interest David Lynn's article in which he tests DC alternators ("Ramping Up Amps to the Battery Bank," September 2017). The test results were not outside what I would imagine from alternators of this type. I was impressed with the efficiency of the new-design Balmar alternator.

I have in the past used sinusoidal inverters driven indirectly from the engine to power equipment in television microwave trucks, with great success. My systems then used 120VAC to drive Xantrex battery chargers, among other power-consuming components in the vehicle, to charge large-capacity AGM batteries, rather than using the smaller engine alternator for this task.

One such system is made by Texas-based Mobile Electric Power Solutions, Inc. The system uses an AC generator driven by the belt system of the engine to power an inverter that converts a primary three-phase AC signal to DC and then to a 60-hertz, 120-volt, sinusoidal, regulated AC output. Power capabilities extend to 15 kilowatts.

Engine speed is not critical above a basic threshold, as the system regulates the power as necessary to hold voltage constant. Moreover, heat generation of power flow is minimized due to higher voltages and lower currents.

I am restoring an older boat and considering the feasibility of using this system.

—Chris Layne, Heathsville, Va.

David Lynn responds

Thanks for the letter, Chris. The system you described, made by MEPS, sounded intriguing, so I contacted the owner of the company to get more information. He advised me that they were not marketing to the sailboat industry for a couple of reasons. First, the equipment costs are quite high, making it hard to compete with the usual alternator/regulator approach. Second, because there are so many different sailboat-engine configurations and engine-room designs, they felt it would be necessary to develop custom mounting brackets and supports for almost every sale they made.

Still, it seems to me that the product has merit if the initial cost isn't an issue and you can figure out how to mount it. If you do decide to add the system to your boat, I'd be very interested in hearing how it works out. All the best for your restoration project.

—David Lynn, *Good Old Boat* electronics editor

Holding-tank vent risks sewage discharge

The carbon filter for the vent line ("Holding-Tank Vent Filter," July 2017) is a very effective way of removing the smell. However, the discharge of sewage that could result from this system if the filter became clogged could be in violation of US Coast Guard regulations (33 CFR Part 159, under the topic of discharge of sewage in US territorial waters).

According to these regulations, it is illegal to discharge untreated waste in inland waters and within 3 miles of shore. If a vessel is equipped with an overboard waste discharge, a valve installed in the discharge line must be safety-wired shut when operating in waters where discharge is prohibited. I am not sure this vent system would pass USCG inspection.

I just did not see in author Alan Wilson's design a way to prevent effluent from being discharged if the tank becomes overfilled. Unlike standard sanitation systems, this vent design accommodates discharge.

—Stephen Craft, Pearson 10m *Cool Change*, Haverhill, Mass.

Alan Wilson responds

Thanks for your interest and concern about my article. The intent of this design is to force the tank's odor-laden gases through a charcoal filter medium, eliminating the moment of silence among folks that often happens when the head is pumped. It also provides a secondary path for waste in the event the tank is overfilled, thus protecting the filter medium and preventing a blocked vent line. (A vent line blocked by any means will cause a pressure buildup leading to a memorable discharge.)

My filter-system design is installed in the original vent-line path. That is, from the top of the tank to an overboard discharge just above the waterline. This path was not then, and is not now, intended to facilitate discharge of any waste into the waterways. However, as I pointed out in the article, it can if the tank is overfilled — as can any tank-vent line.

—Alan Wilson, *Good Old Boat* contributor



wallas®

PROUDLY MADE IN FINLAND

NORDIC D1
DIESEL CERAMIC
STOVE/HEATER

- Safe, efficient, quiet. **CE**
- 0.5 to 0.85 amp/hr draw.
- Increases oxygen in cabin.
- Dry, comfortable heat.
- Thermo comfort control.

Please visit our web site: www.wallas.us

ScanMarine
EQUIPMENT

2144 Westlake Ave N
Suite D, Seattle, WA 98109
206-285-3675 fax 206-285-9532
Toll free: 1-888-606-6665
email: info@scanmarineusa.com

SmartPlug Marine Cordset

Friends on two different sailboats have had electrical fires that originated in their shorepower connections. Corrosion on the contacts and internal connections of the shore-cable receptacles caused the resistance across the connections to increase. As a result, the electrical current generated enough heat to melt and ignite the wire insulation. Fortunately, each crew was aboard and able to quickly extinguish the fire. Interestingly, because there was no short circuit, the shoreside circuit breakers did not trip.

The SmartPlug shorepower cord and receptacle combination greatly reduces the likelihood of fires. The SmartPlug design has greater electrical contact area, incorporates a secure locking mechanism, uses corrosion-resistant tinned copper, and provides a weatherproof connection. Instead of the round connector we are familiar with, the SmartPlug connector body is squared, making it easier to find the correct orientation when making the connection.



The SmartPlug shore cable comes with the new-style connector on one end and a standard connector on the other. The shore side of the cable will fit a standard marina receptacle but the existing onboard receptacle must be changed to the new-style receptacle. I made this change on *Nine of Cups*. The process was straightforward and took about an hour.

The new cable/receptacle combination costs considerably more than a conventional shorepower cable/receptacle. In my estimation, the benefits and high quality of the SmartPlug outweigh the higher cost.

A full range of 30-amp and 50-amp SmartPlug products is available at major chandlers, including Hamilton Marine and Defender. For more information: smartplug.com.

David Lynn, *Good Old Boat* electronics editor

Shurhold Deluxe Water Sprite Mop

Shurhold's Deluxe Water Sprite Mop is one of 40 Shurhold products designed to fit a common Shurhold handle. Comprised of strips of absorbent material nearly 3 inches wide, it's a step up from Shurhold's Soft-N-Thirsty Mop, and a bit more than double the price.

Out of the package, the strips were soft. I soaked the mop in a pail of fresh water and, wringing it dry by hand, wrung 2½ cups from the soaked mop. I hung the mop to dry and the next day found it stiff as a board. Not unlike a chamois, the mop needs to be soaked and wrung before using.

The mop material is polyvinyl acetate (PVA), which absorbs 12 times its weight and is mold- and mildew-resistant. I found it easy to use and effective at mopping up morning dew in the cockpit. I would use it after rain or a washdown. It's equally effective down below, for mopping the cabin sole to remove dust and dirt or to clean up after a spill or leak. It will not scratch surfaces.

While testing this mop head, I also tested the Telescoping Handle. It comes in 6- and 9-foot lengths. I tested the 6-foot handle, which can be set to 43, 53, 63, and 72 inches. Made of triple-anodized aluminum, it's light but sturdy.

Shurhold products are available at Hamilton Marine and other chandlers. For more information: shurhold.com

Jerry Thompson, *Good Old Boat* contributor



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

Boats for Sale



Chris-Craft Apache 37

1967 Sparkman & Stephens-designed sloop. Yanmar 3YM30 diesel w/125 hrs. RF headsail and FB main. Aft-led halyards. Awlgrip hull and deck. Quick little boat. Norfolk, VA. \$20,000.

George Wigfall
757-486-0022
gwigfall2@cox.net



Mercer 44

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

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



Pearson Vanguard 32

1964, hull #66, tiller. Rhodes design. Owner since '84. New

20-hp Beta engine, 86 hrs. ProFurl RF, secondary forestay, ST winches, new rigging and spreaders. Roller-boom main reefing, lazy-jacks. Aries self-steering, solar panel, 4 sails. New stovetop, interior paint, varnish, and cushions. Raymarine GPS. Closed-cell cockpit cushions. Monogram head. Monel fuel, water tanks. Complete ground tackle. Awlgrip paint. Manual Muir windlass. Many extra parts. All manuals. Florida. \$19,500 OBO.

Pierre Soucy
954-972-1399
solutions5@hotmail.com



Kent Ranger 26 with trailer

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

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



CompPac 27/2

1992. Diesel, autohelm, shore-power, 2 sets sails, extras galore. Wonderful shoal-draft, stable. Solid deck, no balsa. Heads up well, sleeps up to 6, new rigging and mast '04. Custom Triad trailer, live rubber shocks, oil-filled bearings, electric brakes. Health forces me to sell. Contact for in-depth info. Bloomington, IN. \$23,900.

Steve Paul
317-691-0285
steve.paul@sbcglobal.net



Fuji 32

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

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



Hallberg-Rassy Rasmus 35

1976, hull #543. Olle Enderlein design. For those who love the sea and appreciate their vessels. *Far Niente* is well-equipped for sailing the Great Lakes and North Channel. Second owner for past 30 years, fresh water only. Maintained with great pride and respect. Cockpit protected by windshield. Perfect for long- and short-term voyages. 75-hp inboard. Comfort no matter the journey. Listed by Irish Boat Shop, Harbor Springs, MI. \$44,000.

Irish Boat Shop
231-526-6225
info@irishboatshop.com



Pearson Renegade 27

1968. Hull #12. Restored in '01. Rebuilt Atomic 4, Awlgrip bottom, solid keel, RF jib, mainsail, butterfly blooper, new main bronze winch '05. Enclosed head, sleeps 4, fresh water, no balsa. New survey '17. Steel cradle. Rubber dinghy. Sad captain loved this boat but crew has aged out. Port Superior, WI. \$5,000.

Hoover
612-747-3026
frdr@aol.com



Cape Dory 31

1985 cutter rig. Beautifully maintained and constantly upgraded. Prettiest boat in the marina and able to stand up to the worst weather. New Dickinson 2-burner with oven, newer sails, M25 diesel. Heat, A/C. 8' inflatable is like new. Always a freshwater boat with no blisters or corrosion. Long list of improvements. Toronto, ON. \$34,500.

Steve
416-688-6273
fullcircled31@gmail.com



Catalina 25 with trailer

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

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

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



Allied Seawind 30

Exclusive listing. 1969. Don Casey's personal boat since '73. Featured in Jan '03 GOB. Just back from 12 years cruising Eastern Caribbean. Extensively improved. Unique interior. 6 sails, 4 anchors, up-size rigging, Yanmar 3GM30F. Refrigeration, oven, grill, 90 gal water. Solar, windgen, APs, chartplotter. 2-speed Andersens, Treadmaster, bimini, dodger. Hard dinghy w/OB. Sailrite sewing machine. Gas gen. FS TV & DVD player. Fenders, lines, tools, spares. Unmatched pedigree. Miami. \$35,000.

Don Casey

boatwrite@earthlink.net



Westerly 28

1968. Fin keel. Fresh water only. *Pisces* is well-built, with Lloyd's certificate of seaworthiness in construction. Sails well. Specs and equipment at bigwaterboatbroker.com. Siskiwit Bay Marina, Cornucopia, WI. \$11,900.

Big Water Boat Broker
218-390-4851

bigwaterboatbroker@gmail.com



Nelson/Marek Morgan 45

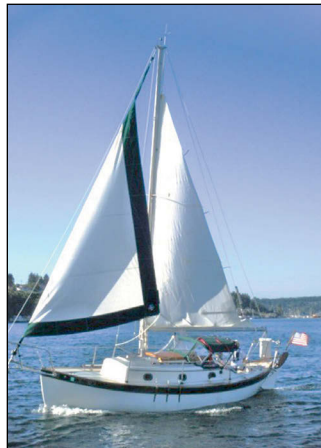
For 22 years this boat has given us the joy and excitement of coastal cruising (from Florida to North Carolina and the Bahama banks) and offshore voyaging (Bermuda, Azores, Portugal, Gibraltar, Lesser Antilles, etc.). Now we're

semi-retired and working abroad, we want to find her a new home with someone looking for a comfortable, seaworthy boat for extensive cruising. Daytona Beach, FL. \$74,900.

Steve Barnett

786-972-9092

stevetbarnett@gmail.com



Pacific Seacraft 25 MkII

1977. Pristine and beautiful w/ many upgrades. The original Pacific Seacraft, Crealock-designed double-ender. Exc for daysailing or weekend overnights. Easy to singlehand but ocean-capable pocket cruiser that can take you anywhere. New engine. Kevlar dinghy. *Fortune* magazine named Pacific Seacraft "One of America's 100 best products." Gig Harbor, WA. \$29,900.

David Schutt

253-851-3096

dschutt54@aol.com



Chris-Craft Apache 37

1969. Classic design by Sparkman & Stephens. Timeless lines, sails fast and strong in all weather. Well cared for and extensively updated. Owner's plans have changed. Great opportunity. Recent major improvements include: repower with Yanmar 30-hp FWC diesel (475 hrs); complete new Hall rig, mast, and boom; Awlgrip Flag Blue hull with gold cove stripe; new canvas, dodger, mainsail cover, bimini. Refinished and continuously maintained teak brightwork. Greenport, NY. \$27,000.

John Stevens

917-745-7364

jstevens45@outlook.com



Cape Dory 28

1977. Yanmar 2GM20F diesel, RF, reefed main, new bimini, Garmin GPS Map 441s, Raymarine ST 2000 AP, solar-charged batteries, new Jabsco head. Origo 2-burner stove, Magma propane grill, standing headroom. Engine serviced recently. Many accessories. Veteran of several East Coast voyages. Owner ready to retire. Galesville, MD. \$14,500 OBO.

Dixon Hemphill

703-250-9277

dixonh1925@gmail.com



International 800

1964 42' yawl. Robert Henry design. Custom wooden yawl built in Germany. Totally rebuilt with new cabins, interior, glass decks, and major hull work. Maintained and updated in great condition. Enclosed center cockpit w/ hard dodger and bimini. New 50-hp Beta. All systems replaced: electrical, plumbing, electronics, sails, watermaker, and solar panels. Owners cruised 15 yrs in Caribbean. Well equipped for immediate cruising. West Bath, ME. Price reduced to \$56,000.

Robert Deans

207-389-6180

sanderling2000@yahoo.com



West Wight Potter 19

2004. Easy-to-sail design, excellent for daysailing or weekend overnights. No comparable trailerable sailboat offers better stability. Easy handling and towing. Bluewater layup, mast-raising

system, bimini, RF jib, 4-hp Yamaha OB. Draft 8" (keel up), 3'7" (keel down). Good condition. Trailer not included. Bokeelia, FL \$6,500.

Chuck Koucky

ckoucky@gmail.com



Grampian 26

1973. Carefully maintained for the last 20 years. New Beta Marine Diesel 26 (w/200 hrs), new Vetus wet exhaust and 3-blade prop. Upgraded electronics and batteries. Dodger and bimini. 4 anchors, 3 sails. Very roomy, high cabin w/long cockpit. Wiarton Marina, Wiarton, Ontario. \$14,000 (CDN) negotiable.

Andrezej Kesik

519-913-1705

akesik79@gmail.com



C&C 29 Mk II

1984. Well maintained and exceptionally clean. 19-hp Yanmar runs great. Hood StoBoom with Doyle main (have original boom also). 135 Doyle genoa. Cruising gennaker with sock. Stands and winter Kover Klamp frames. Dodger, VHF, stereo. Documented. Recent standing rigging, lifelines, steering rebuild. Jamestown, RI. \$20,000.

Fermo Bianchi

fbianchi@fabcoenterprises.com

More boat listings at

GoodOldBoat.com

Sailing Classifieds

Products - General



Do your #\$\$@%&! ports drip whenever you open them?

*Ditch the towels
Get a customized solution*

DRYBUNKS™ Portlight drip catchers

*Install in minutes w/ included tape
Easy to wipe out & clean
Made from aircraft-grade plastic*

NEW! Seaworthy Goods.com
941.448.9173



Mast Mate™

Climb your mast alone with MAST MATE

Made in the USA
for 28 yrs.
Satisfaction Guaranteed

707-433-7370
www.MastMate.com

Smooth Sailing

OVER **30 YEARS**

FOSS FOAM

Rudder Replacements
FOSS FOAM PRODUCTS
OF FLORIDA, INC.

7060 Hwy 41 North
Williston, FL 32696

Tel: 352-529-1104
Fax: 352-529-1106
www.newrudders.com

Cal • Hooks Marine • Sovereign
Catalina • Irwin Spindrift • Com-Pac
Marine Innovators • Starwind Caliber
Endeavour • Starrett • Captiva
Mirage Tanzer • CSY • Morgan • TMI
G Cat • Nimble Watkins • Gullstar
O'Day • Traditional Watercraft
Hunter Marine • Pearson



ZEPHYRWERKS
CUSTOM
SHEAVES & ROLLERS

www.zephyrwerks.com 360-385-2720

CajunRope.com

Custom Yacht
Rigging



Call Toll Free:
1-888-ASK-CAJUN
(275-2258)

Email:
cajun4rope@gmail.com

WE CAN MAKE THAT!

*Have a great idea
for a small item
made from plastic
that you would
like to market?*

*We can design and
manufacture it for you.*

Digital Design, Inc.
www.ddiplastics.com
sales@ddiplastics.com
Bemidji, Minnesota
218-751-7276



EasyMoor
Threads Lines Through Buoy Rings

- Simple, Easy Motion
- Satisfaction Guaranteed
- Saving Knees, Backs & Marriages Since '96!

www.easymoore.com

Rigging

Custom & Do-it-Yourself Rigging



Mechanical
Terminal
Experts!

sailingservices.com
800-458-1074
sales@sailingservices.com

KNOTSTICK

Measure boatspeed
mechanically
for any size boat.

www.knotstick.com
Box 6340, Vero Beach, FL 32961

BOOMKICKER



Boom support for boats
14 to 38 feet
Simply reliable • 10,000+ sold

Boomkicker.com
800-437-7654

COPPER COAT USA

The 10+ Year
Anti-fouling

**How is YOUR
anti-fouling
doing?**

COPPERCOATUSA.COM
321-514-9197

3D PRINTING

We design and print:

- hard to find parts
- custom parts
- nameplates, numbers
- cores for FRP
- and more!

Materials include :
PLA, ABS, TPE, Nylon, and others

Contact us for your part needs!

We ship worldwide

PROTO PLASTIK



proto-plastik.com
Rick@proto-plastik.com



The ORIGINAL, since 2001
www.airheadtoilet.com
PO Box 5, Mt. Vernon, OH 43050
740-392-3642

NewGlass2
Fiberglass Restoration

**Make Your Boat
Shine Like New**

No Compounding

No Waxing

No Buffing

www.NewGlass2.com
800-785-7675

Small ad, small prices:

- standing and running rigging •
- lifelines • furling gear • winches •
- line • windlasses • travelers •
- wire and terminals • blocks •
- vang • clutches • etc. •

**Problem solving and
discount mail order
since 1984**

**RIGGING
ONLY**

Phone: 508-992-0434
Email: **sail@riggingonly.com**
www.riggingandhardware.com

Traditional Marine Stoves



**Solid Fuel
Cast Iron &
Porcelain
Heating
Cooking**

marinestove.com 360 376 5161

Visit our website
GoodOldBoat.com
for a site to see!

LE TONKINOIS



A NATURAL OIL VARNISH
BASED ON A CENTURIES OLD FORMULA.

Very easy to apply and maintain, produces a beautiful deep finish that is durable and forgiving. Does not crack or chip, forget water-caused black spots. Perfect for those who would rather sail than varnish.

AVAILABLE AT THESE FINE LOCATIONS:
Admiral Ship Supply • Port Townsend, WA
Berkeley Marine Center • Berkeley, CA
Deer Harbor Boat Works • Orcas Island, WA
Hamilton Marine • Portland, ME • Seaport, ME

AMERICAN ROPE & TAR
www.tarsmell.com
1-877-965-1800

UNSCREW-UMS™
broken-screw extractors



Remove damaged fastenings. Minimal damage to wood. Hollow tool uses stub as guide. Sizes to remove screws from No. 2 to No. 24, lags, nails, and drifts.

T&L TOOLS
24 Vinegar Hill Rd., Gales Ferry, CT 06335
Phone: 860-464-9485 • Fax: 860-464-9709
unscrew-ums@tltools.com
www.tltools.com

NATURE'S HEAD
Self-Contained Composting Toilet

The Best. By Design.

- ◆ Exceptional Holding Capacity
- ◆ US Coast Guard Approved
- ◆ All Stainless Steel Hardware
- ◆ No Odor
- ◆ Self-Contained
- ◆ Urine Diverting
- ◆ Compact



Five-Year Warranty

Made in USA

NaturesHead.net
251-295-3043

www.MarineVinylFabric.com

\$6.95
per yard



Quality Marine Grade Vinyl

Bloxygen®

Did your varnish skin over?

Preserve your finish

www.bloxygen.com
(888) 810-8311

Boats

FATTY KNEES

A solid dinghy that's fun to sail



For those who yearn for a classic, solidly built dinghy that performs well, the Fatty Knees is truly a distinctive little yacht.

781-307-2466
www.fattyknees.com
dfoynes@fattyknees.com

Boatbuilding

www.epoxyproducts.com/marine.html
603-435-7199

Diamond Teak

www.diamondteak.com

TRUE TEAK WOOD
PLANING, SANDING AVAILABLE.
QUARTERSAWN TEAK FOR DECKING.
T & G • VENEER • CUSTOM WORK
ALSO MAHOGANY & SPANISH CEDAR.
HIGHEST QUALITY • WORLDWIDE SHIPPING

INFO@DIAMONDTEAK.COM • 215-453-2196

FIBERGLASS SUPPLIES

Epoxy, Vinylester, Polyester
Gelcoats, Barrier Coats
FG Laminate Angle & Panels
Carbon Fiber, Kevlar
Fairing & Bonding Compounds
Marine Plywood, Core & More!


DURATEC Divinycell H
SURFACING TECHNOLOGY The High Performance Core

CARBON CORE
HONEYCOMB CORE

Technical Assistance
800-231-6537
www.lbifiberglass.com

LBI

noahs



The Build it/Fix it Warehouse

Marine Plywood, Epoxy, Fiberglass, Varnish, Core, Caulking
Canoe, Kayak & Dinghy Kits

Order online @
www.noahsmarine.com
Free Catalog!

(800) 524-7517
noahs@noahsmarine.com

Restoration

Remove 30 coats of varnish and paint in 20 seconds.



**No Chemicals
No Sanders
Lead Safe**

www.silentpaintremover.com
Ph# 585-924-8070

Sails/Canvas

Minney's Yacht Surplus

www.minneysyachtsurplus.com
949-548-4192

1000s of good used sails, 100s of propellers & sheet winches
NOAA authorized chart agent
"We keep boating affordable"

NATIONAL SAIL SUPPLY

Best sails for the money



New sails, used sails, furling gear, off the shelf or custom - But always at the lowest price - Try us!

Sailing doesn't have to be expensive

Phone 800 611-3823
Fax 813 200-1385
E-mail: NewSails@nationalsail.com
www.nationalsail.com

Sailcrafters

LOFT & RIGGING
952-693-6089

SAIL CLEANING AVAILABLE



7450 Oxford St.
St. Louis Park
MN 55426

Tim Carlson
www.sailcrafters.com
tim@sailcrafters.com

Second Wind Sails



1000s of new and used sails
secondwindsails.com

- Repairs
- Sails made to order
- Sail cleaning
- Canvas cleaning and Waterproofing

Clean out your limited storage and turn unwanted sails into cash
email: info@secondwindsails.com
Toll free: 800-273-8398

THE SAIL CLEANERS



Sail Cleaning
Canvas Cleaning & Waterproofing
Repairs

800-273-8398
sailcleaners.com

Sail Care

20 Years Of Service To Sailors

Over 100,000 Sails Cleaned
Call For Catalog (800) 433-7245
www.SailCare.com

Good Old Boat Ad Deadlines

Issue	Deadline
Mar/Apr	Jan 3, 2018
May/June	Mar 5
July/Aug	May 7
Sept/Oct	July 2

Products - Electrical

TIRED OF HAND STEERING?
GET THE RELIABLE, POWERFUL WHEEL PILOT!

- ◆ Quiet & Dependable
- ◆ Powerful
- ◆ Easy To Install
- ◆ Low Power Usage
- ◆ Built for Immersion



CPT
AUTOPILOT

831-687-0541 (9AM-5PM PACIFIC TIME)
www.cptautopilot.com

Boat Deliveries

**CROSS COUNTRY
BOAT TRANSPORT**



*Specialized
boat
handling
to 55 feet*

Licensed • Insured • Storage
651-437-2454

Services

*Where skilled craftsmen
produce top quality results at
competitive shop rates*




**Bingham Boat
Works LTD.**

*We can build and repair your
fiberglass and wood projects*

906-225-1427
906-225-0050
Fax 906-225-0604
BoatsWeDo@aol.com

Books & Videos

**Selling Your Writing
to the
Boating Magazines**



"When I get queries from sailors wanting to know how to get started writing for the sailing press, I'll recommend this book."

--Karen Larson, *Good Old Boat*

amazon **BARNES & NOBLE**

Cushions/Bedding

www.**Froli**SleepSystems.com



Simply
add
Springs



and enjoy
relaxing comfort, dry bunks too!

Nickle Atlantic, LLC 888-463-7654

Sailors Moving Sailors
STUCK IN A LAKE?



*water loading
all mast work,
pressure washing
over-land transport
fully insured*

view Website for Quote
www.SailorsMovingSailors.com
SailorsMovingSailors@yahoo.com

Websites


**GOB Current and Back Issues,
eBooks, Gear,
Article Collections & More**

AudioSeaStories.com

By-The-Sea
AN ONLINE BOATING MAGAZINE
BOATBUILDERS • RESTORERS
PLANS • KITS • SUPPLIES
OLD BOAT BROKERS • CLASSIFIEDS
www.by-the-sea.com

boat brochures
owner's manuals
blue prints

**YOUR SOURCE
FOR OLD BOAT
LITERATURE**



BOATBROCHURE.COM
power.sail.info

Can't find what you need?
askus@boatbrochure.com

CHECK OUT
TOM PAYNE'S
SANDSHARK BEACH
WWW.GOCOMICS.COM/SANDSHARK-BEACH



DUDE! IT'S
LIKE TOTALLY
AWESOME!

©2016 TOMPAYNE

**Scientists say that 98.7% of *Good Old Boat* readers
read these classifieds, shouldn't they be reading your ad?**

Boat classified ads

	Subscriber	Non subscriber
Run a Web Ad	free	\$40
Renew a Web Ad	\$10	\$10
Magazine Ad with photo	\$55	\$95
Renew a Magazine Ad (magazine and web)	\$55	\$55

- For details and ad guidelines, go to:
www.audioseastories.com/classified-guidelines
- To create an ad, go to: www.audioseastories.com/adverts/add
- Or send by post to:
Good Old Boat, 1300 Evergreen Dr NW, Jamestown, ND 58401
- Total word limit: 75 words.

- Web ads remain online for 90 days.
- Payment must be made in advance by credit card or check.
- Contact Brenda with any questions. Email her at
brenda@goodoldboat.com or call 701-840-8238.

**Display classified ads
(boxed product and service ads)**

- \$50 for color per column inch. Sold in half-inch increments.
- May not exceed 3 inches.
- Column width is 1½ inches.
- Classified display advertisers are invoiced following publication of the issue containing their ads.

Best bad luck

The McBride knack for sidestepping misfortune

BY CONNIE MCBRIDE

PHOTOS BY HANNAH MCBRIDE

Sitting in St. Croix, US Virgin Islands, four weeks after the eye of Category 5 Hurricane Maria missed us by a few miles, with no power or running water (and likely not to be any for six months or more), something our middle son said over a decade ago surfaced in my mind. “You guys have the best bad luck. Bad things happen, but you’re always okay.” Indeed, we’d suffered no personal damage in the storm, but the best example of the truth of Garrett’s observation is the storm story from his little brother, David.

Two weeks before Maria entered our lives, while we hunkered down as Irma devastated the Virgin Islands, David, his wife, and our grandson were evacuating the Florida Keys in anticipation of Irma’s arrival. Irma did pass directly over their boat/home in Marathon, Florida, as a Category 4 storm. From Atlanta, the couple watched news footage of houses floating out to sea and piles of jumbled boats in their Boot Key Harbor. They warned 5-year-old Ashleigh that their family’s boat might not be there when they returned, or that their things in the boat might be damaged. Among themselves, they tried not to play the “I wish we had brought” game.

When they were finally allowed back into Marathon, there sat their boat in true McBride best-bad-luck fashion, one of a small percentage of boats that were completely unscathed. As David said, “We lost nothing. Well, except my music folder.”

When David was 14 years old, Garrett moved off the family boat to start college, and we could no longer use the “we don’t have room” excuse to prevent his adding a guitar to his growing collection of possessions taking over the aft cabin on *Eurisko*, our 34-foot Creekmore. From that day, David has been collecting lyrics and guitar tabs of his favorite songs, and adding his original pieces over the years. As it happened, shortly before Irma struck, he had loaned his music folder to his best friend, Ben, a nearby liveaboard, who had also evacuated — without taking David’s folder with him. Of the 255 boats in Boot Key Harbor, only 40 survived

the storm. Ben’s wasn’t one of them. In fact, Ben’s boat was missing. And with it, David’s music folder.

With all of the destruction around us (on his island and ours), it seemed a trivial loss, but one that broke my heart. That red folder had lain on David’s bunk for years before he moved out. I felt like a bit of his adolescence had been lost when the folder became a casualty of Irma.

Six weeks after Irma, David was working in the boatyard when a Florida Fish and Wildlife Conservation (FWC) officer approached him. A fisherman had found Ben’s boat bobbing offshore, water over the sole, dismantled, and with blown-out hatches and a crushed hull-to-deck joint. After pumping the boat out, this officer had gone aboard to remove any personal papers and anything that might be important to the owner.

As he was out of the country, Ben directed the FWC officer to David. And here she was now in the boatyard with David.

“Is there anything you would like off the boat?”

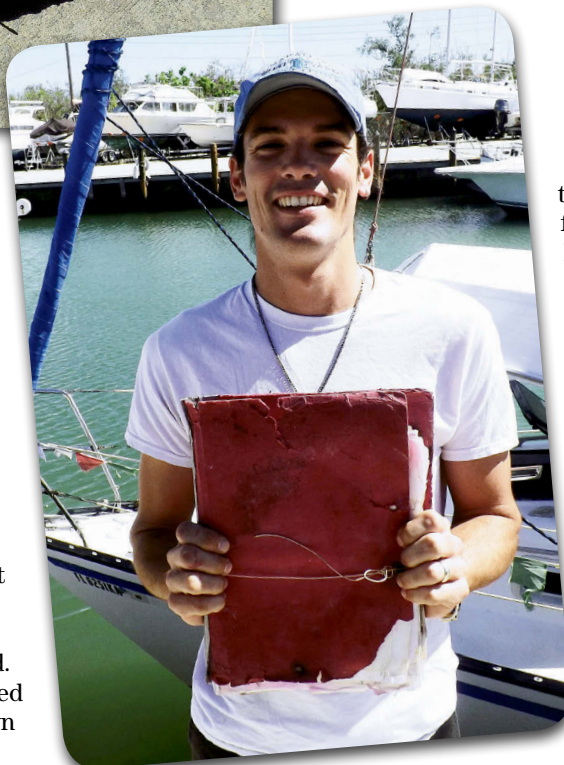
“Well, actually, my music folder was aboard. It’s the only thing I lost in Irma.”

“What’s it look like?”

“It’s a plain red folder, tied together with a piece of string.” She held up a finger, “Hang on.”

A few minutes later, she returned from her truck with his slightly soggy and moldy music folder. Though never submerged in salt water, it had been wet for a while. Some of the pages were stuck together and the ink had washed away in a few places. But considering a Category 4 hurricane passed directly over David’s house, I’d say that music folder represents some pretty good bad luck. *△*

Connie McBride and her husband, Dave, raised three boys aboard their 34-foot sailboat, Eurisko, while cruising the Caribbean. After 15 years, they now divide their time between enjoying being empty-nesters and visiting their grandson, the third-generation McBride cruiser. You can follow their adventures at www.facebook.com/simplysailingonline.



Your Annual DIY Resource

DELIVERED RIGHT TO YOUR DOOR

Request Your **FREE** 2018 Marine Catalog at Sailrite.com/catalog-request



 **SAILRITE**
Est. 1969

Your Go-To Source for Canvas Supplies & Instruction Since 1969.

Visit us online at Sailrite.com or call 260.244.4647