ELECTRIC OUTBOARDS

I have a Pearson Ensign 1962 now at a slip in New Rochelle, N.Y. This season marked the first time we had the luxury of keeping our boat at a slip. In order to maneuver through the marina's byways without worrying, I bought a 24-volt Minn Kota outboard (80 pounds of thrust) and two 12-volt batteries, which I hook up in series. Not only am I able to stop start, turn, etc., in the marina, but—to my surprise—in the calm sound water, I can nip along at about 3-4 mph with myself, two crew, and the 3,000-pound boat. The result is that I've only used my 5-horsepower Mercury outboard once this year.

My electric outboard doesn't stall; it has variable speed like no one's business; reverses with relative ease, and is less expensive—though more cluttered—than the self-contained electric outboards you recently reviewed. Am I part of a growing trend or just weird? If the former then it might be worthwhile testing electric outboards for boats my size (22.5 feet) and commenting on their applicability.

My one negative experience was going out when we had a spate of wind coming unblocked from the northeast, wave heights were high, winds were over 20 mph, and the motor almost got torn off by a wave. So, it's not something I would use in rough conditions, but those are not often, and I have my regular outboard onboard.

Jed Shivers
GR8M8S, Pearson Ensign
Scarsdale, N.Y.

We had a surprising amount of reader response to a short article we ran in the Nov. 15, 2004 issue regarding using a Minn Kota Riptide trolling motor as auxiliary power for a dinghy. As it turns out, many readers use trolling motors on dinghies and even as primary propulsion on boats in the size range of your Ensign. (The Riptide we tested is still alive and well, doing duty on a PS test boat in New England, although it hasn't been used much lately.) We ran a followup test of trolling motors in the May 2005 issue, which named the Minn Kota RT80/S-3X (80 pounds thrust, 34.5 pounds weight, www.minnkotamotors.com) as our top choice, due largely to its added features, over another Minn Kota and Motorguide motors. Minn Kota has since come out with a new Riptide transom-mount, saltwater trolling motor. Perhaps a test update is in order. We also tested a self-contained electric outboard, the Torqeedo Travel 801L (68 pounds thrust, 27 pounds weight, www.torqeedo.com) in the November 2007 issue, and found it to be a good little engine for a dinghy or a daysailer needing propulsion in and out of a marina. You won't set any speed records with a trolling motor—they aren't made for running at 100 percent all the time and battery drain is a concern—but they are feasible alternatives to pricey electric outboards or gas outboards for daysailers or weekenders. One common drawback of electric motors, as you mentioned, is their sometimes flimsy mounting arrangement. Gas-powered outboards remain a more practical choice for most cruising applications.

Many small-boat owners have found electric motors, like the Torqeedo Travel 801 above, and trolling motors to be attractive alternatives to heavier, louder gas outboards.

FYI ON DSC

Your sidebar on Digital Selective Calling and the need to get an MMSI ("Some Answers to the Most Frequently Asked DSC Questions," October 2009) was excellent, but it missed an important point. MMSIs are issued by the Federal Communication Commission (FCC) only in conjunction with a ship's station license, which costs $160 and must be periodically renewed. Recreational vessels that carry no more than VHF, radar, and EPIRBs (ie, no single-sideband rig) are not required to have a ship's station license while operating in U.S. waters.

Boat/US, the Power Squadrons, and

Painting a white hull a color shows the inevitable dock bites, bumps, and bruises more readily, so PS testers refreshed our white Catalina 22 with a few coats of white two-part LPU paint. The project is a feasible DIY job, but having a two-person team makes the rolling-and-tipping much easier.

SeaTow have struck a deal with the FCC to issue MMSIs for free. These MMSIs are, however, specially coded so they can be recognized as "US-only" MMSIs. As you note, that's why one must get an MMSI directly from the FCC—along with a ship's station license—if planning to operate outside U.S. waters.

Luther Abel
Indulgence, CS 36
San Jose, Calif.

DINGHY PUMPS

Great article on the V-bottom inflatable dinghies (November 2009), but one can wear out one's foot pumping these boats up. How about a recommendation on an electric inflator? We are, as a group, not getting any younger you know!

Lee Licata
Izmir, Turkey

The floors of these boats have to be filled to about 11 psi (750mB), and to get that without breaking a sweat, you'll need a high-pressure pump. We have not yet tested any high-pressure inflators, but our last dinghy pump test (June 2008) tapped the Rule ID20 as the Best Choice in 12-volt pumps. Since then, however, one of our two test models has stopped working, so it has fallen from our favor. We turned to major dinghy sellers (and competitors) West Marine and Defender for input, and both recommended the Bravo Superturbo BST 12 HPP from Scoprega. Like the Scoprega Bravo 12 we tested, this pump can be set to a certain cut-off pressure. If it screams as loud as the Bravo 12 we tested (105 dB), you'll want earplugs. We've also used a cheap ($20) 12-volt inflatable bed/car tire inflator from Target (fitted with the closest adapter). It works for the initial fill, but you'll still need to manually bring the dinghy up to full pressure.

HULL PAINT: LIGHT vs. DARK

Too much fear is instilled in the boating industry about self-help in hull painting. I thought your article on this topic (November 2009) was timely and useful. However, not all of us want a white or black hull, but many are fearful of the harm to the hull should we decide to paint it a different shade. All know that a black hull will attract heat so as to make the hull almost not inhabitable, but what about other colors? How does a lighter shade of blue impact a hull? What happens to the fiberglass?

Tom
Alden Challenger
Jacksonville, Fla.

Heat in the cabin is only one worry when you paint a boat a darker color. If it is an older boat (pre-1990s) built with a high-styrene content resin, there may be uncured resin in the hull that, due to the effects of heat-induced expansion and contraction cycles, will reveal print-through (the fabric pattern) in the hull. A lighter color is generally less likely to cause print-through or to reveal this effect.

Another problem with painting a white hull with any color, light or not, is that the inevitable nicks become more obvious. That lovely painted pale blue hull probably won't look so lovely two years later. Then again, if the boat is kept on a mooring and well cared for, it won't get the bumps and scrapes that are inevitable at the dock.

EXHAUST FUMES

I have a Grampian 30. Several years ago, the exhaust manifold on the diesel came adrift, and the cabin filled with exhaust fumes. We changed the cushions and sprayed all type of chemicals. Nothing worked. The smell is still there. Is there a solution for this?

Hans Nita
Boondoggle II, Grampian 30
Toronto, Ontario

Our PS Advisor sections in the April and May 2007 issues suggested that time, a good bilge cleaner, and a hot-water pressure wash works for diesel spills, but we could find nothing in our files on soot, a potentially more insidious contaminant. Not knowing the degree of contamination, we assume it is very bad. Conveniently, Good Old Boat magazine, www.goodoldboat.com *has an article in the October issue on a fire-damaged boat that could be helpful to you. The author, a victim of an onboard fire, used cleaning products from Quick-NBrite* (www.quicknbrite.com)*, Winsol Laboratories in Seattle* (www.winsol.com)*, and Servpro Cleaning Co.* (www.servpro.com)*. Another alternative would be hiring a professional cleaning service like Servpro to tackle the smells.*

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Downwind Downer: Shackle on Spinnaker Block Bites the Dust

Corsairs in the 30-foot range, like this Corsair 31RS and reader Sam Showalter's F-31, are better suited using blocks in the 55- to 70-millimeter range as leads for spinnaker sheets, according to block-maker Ronstan.

Apart from electrical components, stainless-steel failure is one of the most often reported problems we hear from readers. Often, this failure is due to poor installation or maintenance, but the material itself has some inherent problems. Even the highest-grade stainless steel has a finite working life in the marine environment, and when it goes, it can go suddenly and catastrophically. *PS* did an extensive study of the troubles with stainless steel in our February 2007 issue. A recent example of the fallibility of this material came from reader Sam Showalter, who sails a Corsair F-31 in Texas.

After approximately eight years in service, the Nicro snap-shackle on a Ronstan Series 50 Orbit block sheared at the swivel pin. (See photos below right.) Showalter fixes the block to the aft quarter of his Corsair, using it as a turning block for the spinnaker sheet. According to Showalter, the swivel pin failed under a modest load, at 2 a.m. (of course) during the 2007 Harvest Moon Race. Prior to failure, the block had not seen a great deal of saltwater action, and it was always stored out of the weather when not in use.

The Ronstan block has a 500-kilogram working load and a 1,500-kilogram breaking strength (*www.ronstan.com*). The spinnaker measures 1,064 square feet, but the boat is light (3,500-4,000 pounds). In our view, Corsair should specify a beefier block for this duty.

Showalter said that this was the second such failure on his boat, and he worries that poor design is at fault. "The pin that keeps the parts from unscrewing takes away about 30 percent of the area, and also causes stress concentration and a place for corrosion to begin," he wrote in an e-mail to *PS*. "The pin is so close to the edge of the shackle that there are only about two threads engaged before the pin hole.

"This is a commonly used design, and I am certain that these are not the only ones like this that have failed. I would think that the weak link in a system like this should be the compressive strength of the balls, or the sheave, but certainly not the shackle itself, " he concluded.

Ronstan 50 with Lewmar replacement shackle

After the incident, Showalter purchased several Lewmar shackles to replace the Nicro shackles on his blocks. (See photo at page center.) He expects that the swivel pin on the Lewmar will not fail before the block.

According to Ronstan's Scot West, the failure likely can be attributed to a combination of the following: nearly 10 years use in the marine environment, potential overloading, and bending/off-axis loading, which is a result of the block's inability to articulate in two directions and increases fatigue.

Ronstan suggests using a larger block and a soft attachment instead, generally a length of 6-millimeter Dyneema (*www.dsm.com*), to lash an appropriately sized block. For a review of several options, see "High Tech Rope Shackles," *PS* Jan. 15, 2003 (online at *www.practical-sailor.com/marine/chafe-protection-for-marine-rope.html*).

Not only does the Dyneema bend to better align with the spinnaker sheet loads, but it also won't corrode. However, it does chafe and deteriorate from UV exposure. These soft attachments require frequent inspection for wear, making them more practical for racing boats than most cruising boats. West also recommended using a beefier block such as Ronstan's 55-millimeter or 70-millimeter Orbit blocks.

A combination of time, corrosion, and off-axis, cyclical loading likely contributed to this Nicro shackle's failure. The side and top views of the failure point show where the shackle simply sheared.

Photos courtesy of Sam Showalter and Corsair

PS Tech Editor to Present at New Cruisers Winter Workshop

Practical Sailor Technical Editor Ralph Naranjo will be among the presenters at the Annapolis School of Seamanship's new Cruiser's Winter Workshop, set for Jan. 23-24, 2010, at the Maritime Institute of Technology and Graduate Studies (MITAGS) in Linthicum Heights, Md. Other presenters at the workshop will be Steve D'Antonio, technical editor of PassageMaker and owner of D'Antonio Marine Consulting; Lee Chesneau, former NOAA Senior Marine Meteorologist and owner of Chesneau's Marine Weather; and John Martino, founder and president, Annapolis School of Seamanship.

Ralph Naranjo

The interactive presentations will offer an in-depth look at a variety of topics important to cruisers from passage planning and weather to onboard systems and collision avoidance. Participants will also be able to tour the maritime simulation facilities at the institute, where captains and pilots from around the world go to hone their shiphandling and electronic navigation skills.

The $475 cost covers the following: full group sessions, small group break-out sessions, an interactive simulator tour; lunch and dinner on Saturday, breakfast on Sunday; lodging at MITAGS hotel; and a wrap-up panel discussion with all the presenters. A free shuttle for those flying in also will be provided between the conference center and BWI Airport.

To register, visit *www.annapolisschoolofseamanship.com* or call 866/369-2248.

SI-TEX 'ALIVE AND WELL'

During Si-Tex Marine Electronics transition to new owners after its sale in August, the company stopped accepting products for repairs, creating some confusion among customers and other *PS* readers as to whom to contact regarding Si-Tex products. According to company executives, Si-Tex is now accepting products for repairs. Its new facility in Riverhead, N.Y., has been open for business since October and is now providing sales, service, and product support. Formerly part of Koden America, Si-Tex Marine Electronics (NSME Inc.) is "alive and well," according to Vice President of Sales Allen Schneider, and will be launching new products at the Miami Boat Show in February. Customers looking for repairs or product support can contact Si-tex online at *www.si-tex.com* or 631/996-2690.

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TILLERPILOT TRIALS

"Tillerpilot Sea Trials," June 2009, compared a Raymarine ST1000 Plus ($449) to a Simrad TP10 ($305). You compared apples to oranges. You should have compared the Raymarine to the Simrad TP22 ($426.95, Marine-Electronics-Unlimited). I use the TP22 on my Hydrovane self-steering as a backup autopilot/emergency rudder setup. My hull is steel, so it receives the more accurate NMEA 0183 heading sentences from my KVH fluxgate compass. The TP22 controls the Hydrovane perfectly and steers my 24,000-pound Folkes 39-foot steel-hull cutter better than I could.

Scott Ritchie
Loon-Asea, Folkes 39
Seattle, Wash.

We will be sure to include the TP22 in our next round of comparisons. Users who combine the tillerpilot with windvanes while motoring should know that prop-wash can result in vibration that can, over time, weaken welds on the mount or vane on some designs. If you have any doubts about your vane/tillerpilot setup, you should check with the vane maker to be sure your installation is adequate for this sort of duty.

MARINE HOLDING TANKS

I have been looking for information in the back issues concerning waste holding tanks. My 2002 Jeanneau 43DS has two stainless-steel holding tanks that have very small pin holes and streaks of staining around the seams at the top of both tanks. Is this something that requires tank replacement or repair? How could they be repaired? Or what would be a better material for the tanks: plastic, aluminum? I'm looking for the best solution, not the cheapest.

Jerry L. Boyarsky
Via e-mail
Closter, N.J.

A welder could fix these holes. Also, with the right prep work, epoxy products like System 3's Metal Weld, West System's G-Flex, or Marine-Tex should plug pinholes. However, none of these fixes will eliminate the cause, and there's a chance there are other unseen and more troublesome leaks "below the waterline," so to speak. The chemicals and acids that wind up in holding tanks can have a corrosive effect on metals, particularly welded seams, making stainless steel and aluminum less than ideal for holding tanks. In our view, the "best solution" is a new custom-made FRP/composite tank using isopthalic polyester or, even better, epoxy resins. If you are handy with epoxy, you can build a composite or solid FRP tank. A well-constructed epoxy coated plywood tank (FRP-taped and epoxy bonded at the seams) is also a viable option. A store-bought well-made plastic tank (Sealand did best in our September 2000 test), is another cost-effective solution for someone who doesn't have the time to build his own tank.

Practical Sailor welcomes letters from our readers. Please include your name, home port, boat type, and boat name. Send e-mail to practicalsailor@belvoirpubs.com and mail to *Practical Sailor*, 7820 Holiday Dr. S., Suite 315, Sarasota, FL 34231.

Photo courtesy of Bebi Electronics (top) and Martin Waine (bottom)

BEBI ELECTRONICS

I purchased two LED anchor lights from Bebi Electronics (*www.bebi-electronics.com*) about two years ago. At anchor, our boat was immediately recognizable because of their brightness. These lights have been on almost continually for the two years as we use them as a security light with no photo-electric switch.

We recently had a lightning strike that partially damaged them. Even without our requesting compensation, Bebi sold us replacements as well as some additional lights at a deep discount. I highly recommend Bebi Electronics.

Phil Turner
Gypsy Woman, Endeavour 35
Bon Secour, Ala.

HART TANK TENDER

In 2001, while equipping my sailboat, I purchased a Hart Systems Tank Tender (*www.thetanktender.com*). Recently the select knob froze up on it. I sent the equipment back to the manufacturer for repair. A few days later, it was returned fully repaired, at no charge. That's going the extra mile.

Hart Tank Tender

Jim Wilcox
Roy, Tayanna 58 Cutter
Roy, Wash.

BLUE SEA SYSTEMS

I recently noticed my Blue Sea Systems digital voltmeter (*www.bluesea.com*) was reading quite far out of spec and contacted the company by e-mail. The person responding immediately agreed to replace the meter at no charge, not even for shipping, and despite about three years of use. He also was very understanding about my not returning the old meter for an indefinite period as I'm in Ecuador and sending things from here is very expensive. Finally, he got the shipping process started for the new meter immediately upon receiving my ship-to address in the states. In my view, great product support and great customer service!

Phil Sherwood
1989 Passport 40
Friday Harbor, Wash.

AHNU SHOES

I just wanted to draw your attention to another vendor that does a great job in support of their product: Ahnu Shoes (*www.ahnufootwear.com*). I had had a pair of their light shoes since 2007, and although I had worn them only a few times, the lace latch mechanism broke, and I was not able to tighten the laces. I e-mailed Ahnu's support center. To my surprise, they offered to exchange them for a new pair, and they paid shipping both ways. Personal, pleasant, and a quality product that they stand behind 100 percent—what a great way to do business!

Dave Dabay
Compass Rose, Hunter P42
Callao, Va.

Bebi Electronics' LEDs are handmade by a small workforce on Vanua Levu, Fiji. Designed by sailors for sailors, Bebi products like the wood galley light (inset) are rugged, low-energy choices, and the company is backed with top-notch, personal customer service.

IMTRA AND HARKEN

I want to report two instances of outstanding customer support. First: I replaced all 12 overhead incandescent bulbs in my main cabin with LED assemblies from Imtra (*www.imtra.com*). Three years later, five of them had partial failures (some of the 22 LEDs in each unit had failed). When I asked them about it at a boat show, they were most accommodating and replaced all the units that had partial failures. Second: A Harken block (*www.harken.com*) in my boom vang failed during its sixth season. Though near the end of the warranty period (seven years), Harken replaced it without question. Such good support makes for loyal customers.

Martin Waine
Celeritas, Tartan 4100
Salters Point, Mass.

The owner of this Tartan 4100, PS *reader Martin Waine, gives Harken and Imtra two thumbs up for service.*