



Silverton Owners Club

Issue #80



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Greetings!

For those of you in the north, we are already at the beginning of the last month of the boating season for 2013. Labor Day is very early this year. It's only a few weeks until school starts again. Make the most of the time you have left before you have to get back to the grind-stone.



Nyla Deputy
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In other news, a few weeks ago, the news was published that I have sold my boat. Instead of being a Wannabee, I created a new level and it's called a "Used To Be."

Our online Library is growing. People are sending in owners manuals for the equipment they have on board. We are continuing to get wiring diagrams and also owners manuals for boats after the year 2001. That was when Silverton began seriously thinking about creating them. I am listing what we have on the bulletin board. You can't download them from the board but you can contact me and I will send you the PDF file for it.

On the bulletin board, there is a discussion about West Marine and Price Matching. There is a lot of information being put out by West Marine. Whether they price match or not depends on which West Marine you ask. If you have never been to the bulletin board before, this discussion is worth following. It can save you a lot of money. Any of you care anything about saving money on boat stuff?

This month we got a big improvement in the club office to help with creating the newsletter and the E-news. I have now have two 21 inch monitors that are connected. Work on the newsletter document on one monitor and open files, check email etc at the same time on the other monitor. Cut and paste documents and drag them from one monitor to the other. Together, they give me a monitor size of 42 inches by 14. This is going to make it a lot easier to drop pictures in the right place in a document! Sometimes technology is good!



Boat Names

We always love seeing what kinds of names people come up with for their boat. Some people have a first or last name that works well. Like the boat name above. There is a catchy name. This boat belongs to Bart & Shannon Barry who are Lake Erie boaters out of Catawba Island. We have a forum on the bulletin board where members post pictures of the transom on their boat and they tell what the name means or how they came up with it.

[Famous Boat Names](#)
[Fishing Boat Names](#)
[Movie Boat Names](#)
[Pirate Boat Names](#)
[Popular Boat Names](#)
[Power Boat Names](#)
[Sail Boat Names](#)
[Top 10 Boat Names](#)
[Clever Boat Names](#)
[Common Boat Names](#)
[Cool Boat Names](#)
[Funny Boat Names](#)
[Good Boat Names](#)
[Unique Boat Names](#)
[Unusual Boat Names](#)

But for those who can't or don't want to incorporate their last name into the boat name—coming up with something catchy can be a chore. I found a place that makes it easy. The web address is <http://www.coolboatnames.com>. They have thousands to choose from.

Once you have chosen the boat name, there are lots of rituals connected with the naming of a boat. There is even a formal ceremony. It's a process steeped in tradition and lore that we will share with you in the next edition of this newsletter.



Bulletin Board

Password: cloud

(in all lower case letters)

Bulletin Board User Name;

It's your first and last name with a space between the names.

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All Of A Sudden—By Joe Howarth

It's great to be on the boat. Where else can I spend every available hour with my face into something that needs fixing! 🤔

A couple of days ago, I moved the boat to a new location. In doing so, I inadvertently activated the starter on my port engine that was already running. I am sure many have done the same or similar things with their cars or trucks. No problem, heck been there before, done that.

Well this noontime, I advised Wifey that it was time to get off of a town mooring at Vineyard Haven, Matha's Vineyard (she paid for it because where I anchor was sloppy) because we were supposed to be gone at noon. Starboard engine started right up. Port engine turned the key on and only buzzzzzzzz buzzzzzz! No oil pressure building. That caused a trip for me into my favorite spot, the bilge, so I could hear if the engine was cranking.....it was not. Yes, the solenoid did close and the starter motor did spin, but the Bendix gear did not engage with the flywheel's ring gear.

So there we sat in the middle of a crowded mooring field with one engine and a 15K wind along with a beautiful \$\$\$\$\$\$ big buck boat from Maine directly in front of me. That boat's dinghy davit mounted on the swim platform must have cost at least \$15-20K alone. Pull out into the field on one engine???? Yeah, right on! Oh, and this was my first year to rely on my marine insurance to pay for towing instead of BoatUS.

I did call BoatUS and increased the towing to unlimited (another \$85 or so), which will become active at midnight tonight. OK, I guess we could stay another day. So I asked if I would be covered tomorrow...YES as long as the trouble is not pre-existing to which I responded, "well I don't know of any troubles, do you???" No sir was the quick reply! OK, so now I asked about being towed to my slip from the rented mooring I was on. "NO PROBLEMS SIR, AFTER 30 DAYS! I ought to be covered tomorrow. Sir, you must have a breakdown at sea, not on a mooring."

And again I looked at the shiny expensive boats surround me. Could this be my opportunity to meet some rich new friends???? Heck, all my current friends are like me, BROKE! A fresh case of NO GUTS NO GLORY!

An hour has now passed, but that's good because Woods Hole current is now in our favor, but those expensive boats in the way are not!

Anyway, I contacted the harbormaster who was kind to stand by while I powered out under one engine. His goal was to prevent you know what! Now there are harbormasters and there are harbormasters. Mine looked to be about 15 years old. So going for the glory, I had Wifey drop the mooring while I powered away with my one operating engine. Almost full speed ahead! And who is in my way???? Yup, the HARBORMASTER!!! I had to signal for him to move or he in his little piece of Shi****, no make that POOP boat, could be shredded by my one good engine propeller!

Things were uneventful from that point until I approached our slip. I enjoyed a blessing from the Sea Gods, all of them. I managed to get my boat abeam of the wind while lined up with the fairway such that the wind blew the boat all the way down the fairway to where our slip was at the very end. Some guys took a line from Wifey and that, along with a few short shots in reverse, my ordeal

(Continued on page 3)

(Continued from page 2)—All of a Sudden ended!

Tomorrow I will remove the @#%[^] engine starter and hope the problem is not the ring gear. More later.

Part 2 A few days later

I had the starter repaired. The Bendix gear was shattered & the shaft was bent. Now for the hard part. I still have not retrieved all the debris from the bell housing AND I SPENT HOURS TRYING. The tool that worked best is a magnet on a flexible extension. To date, I have about 90% of the stuff removed, although there remains two pieces or could be only one piece of the hollow shaft that links the Bendix gear to the area where the solenoid forces it to engage the ring gear.

I have no solution as I type or rather no inexpensive solution. It might be necessary to remove the transmission to get the parts. Because of the expense of having this done, I am going to just run it the way it is now. If additional damage occurs.... well the transmission will need to come out anyway. I am gong to give this another try maybe next week or so. I might purchase a bore scope from Harbor Freight to help me find the remaining parts.

Part 3 A week later

The engine must be completely free of the Bendix gear piece parts and the cast iron tube that make up the assembly. There is zero room to get at anything. I learned the old saying "crawling on your belly like a reptile" has meaning in my bilge! There is a half moon 1/8" steel plate that bolts to the aluminum bellhousing that blocks access to the front of the flywheel/ring gear assembly. No way could I remove all the bolts needed to remove the plate.

I was able to remove 3 of them leaving the other 3 in place. Also I had to move a 2" cooling hose and an oil line clamp that supports the oil lines to the oil cooler. The newly created space allowed me to jam a pickle bar between the plate and the aluminum bell housing so I could at least see in there. Hours later, I managed to pull some pieces of the gear along with teeth out of that section using an extended magnet tool to sweep around as best I could. Reassembled, showered, broke out the band aids and when Wifey returned, she demurred "did my poor baby have a hard day?" I smiled and said "no, the stuff I did today was a piece of cake!"

But then the dreaded tomorrow arrived!

I approached the other side of the flywheel/ring gear which was a lot easier than my previous, painful day's exercise. There is an access hole at the top of the aluminum bell housing at the boundary of the transmission cowling. Fortunately for me, I own some very powerful magnets, the rare earth ones known as neodymium iron boron magnets. I fractured one, used a small piece to tape to the flexible "grab it" tool. There is a space of about 1/2" to work this tool down to the bottom where debris should be. The extended magnet tool used the previous day just would not fit where I had to work.

I succeeded to pick up more pieces.....BUT NOT ALL! I believe I have about 90% of the crap out of the flywheel area where damage can happen if this junk gets between the moving machinery.

The engine does run! I worry though about some destruction from the remaining junk getting caught up in the flywheel. I think there are possibly 1-3 pieces still in the engine and those pieces made up the tube section of the Bendix assembly.

Wifey and I plan a trip ...maybe tomorrow to Cuttyhunk for the rest of the week. My plan is to use both engines getting out of and into the harbors. The main travel will be on one engine running around 17-1800 RPM. This is not a new experience, I have been running on one engine now since I got the boat. It helps cut operating cost and I did check with Borg-Warner to be sure their Velvet transmission will withstand harm. Their engineering staff claim as long as I keep the speed slow, under about 9-10K, things are fine.

GEEZ,,,, I certainly hope this never happens to anybody else.

There is not much more I can do until I can get a bore scope in there for a look/see. I feel good that I got out as much as I did.

There is another Silverton owner here at the docks who thought he could help pull the transmission back so the ring gear would be accessible. Claimed it took him only 2 hours to pull and another two hours to replace.

He came to the boat early one day last week to start, asked where the engines were..... I knew then he was not the solution. I opened the engine cover and he said, "THIS IS COMPLETELY DIFFERENT THAN MINE!" Sure it was different, his boat is a convertible where he has much room to work with. My boat is a 40 aft cabin. In order to pull the transmission back, the shaft needs to be disconnected and pulled to the rear of the boat. The engine needs to be jacked and blocked to remove it from the engine mounts. The transmission needs to be raised and supported, unbolted and slid back.

If I can get more debris out, cheers for me! If I cannot, I intend to just take my chances. If poop then happens, I will pay to have it fixed which will require the transmission to be pulled and a repair made. The big bite will be the cost to have the transmission itself removed.

Oh, Cuttyhunk! Our weather has turned to POOP so the trip is off until tomorrow.



Chronicles Of An Icemaker

Contributors:

Dave Penny

Ted Schindler

Nyla Deputy

You don't need an icemaker to operate a boat, but it sure are nice to have. They do come with their own set of problems, one of which is that they have the potential to flood out your boat. And the threat is high enough that it is worth mentioning here.

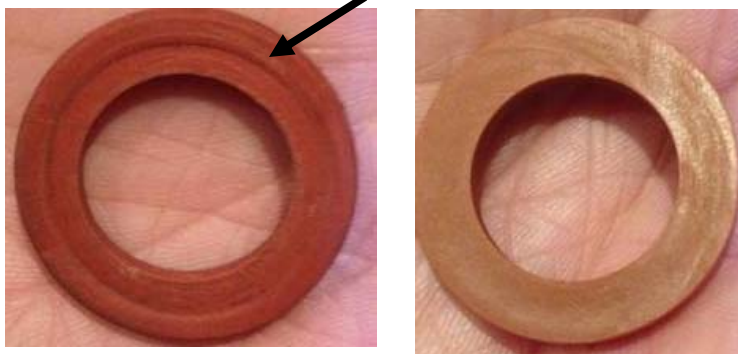
Most motoryachts' and aft cabins have the icemaker installed on the aft deck. Having it installed outside does cause it to run more and the units tend to suffer some rust and corrosion. For the convertible owners, some have it installed out in the cockpit, but many have it installed inside—in the salon. The two major players in the icemaker market are Raritan's Icerette and U-Line. Like the icemaker in your refrigerator at home, it requires a water connection and that is where the flooding potential is. Some water lines at home are copper. The new water lines are plastic tubing—and that is what is used on boats. The temperature extremes are far greater than what the plastic hose in your home is subjected to. That is one way to get a leak.

Dave Penny found another way to get a leak.

I got to the boat today and heard the freshwater pump for the faucets cycling a lot. I then noticed that the ice maker lower vent was partly covered by a portion of cardboard which was also not allowing complete closure of the door (though it appeared closed from above). Then I noticed water spraying from the vent and area. I opened it up and there was a leak at the connection point at the hose like fixture. The ice bucket had a solid block of ice in it instead of cubes that had

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been there last night. The connection looks okay. Wondering if something froze in the system causing a blockage.



Every time I've had a problem this summer, I find out that its not an uncommon problem. Thanks for the insights. So far I changed a washer in the hose fitting that connects the water supply to the ice maker's plastic fitting. Seems to be dry now. Just don't know how that could be related to the foot being open. And the old washer hardly looked worn. I'm not sure I can trust it again! I used a spot bot cleaning machine to suck water out of the carpet and pulled it and found a dripping carpet pad. I pulled that and now drying thing out with a fan and dehumidifier and air conditioner. Hopefully in the next day or so things will be dry enough to put pad and carpet back down. It was secured with staples and not carpet tacks as well so gotta figure out how to staple it back down. Ah...boating; always the unexpected but always learning as well!

Upon further inspection, the point of the leak was the water hose connector to the solenoid housing (I believe that is the housing) and is a hose connector to a plastic threaded piece. The washer was the problem apparently because when I replaced it, the leak stopped. Hard to believe because to me the washer looked fine and it was a sudden leak (as far as I can tell). I'm beginning to believe that the door being left open a bit was just a coincidence that only resulted in a solid block of ice in the ice bin. Here is the old washer and the new washer....a difference but not as much as I'd imagined would cause a leak. Just a slight indentation.

Other Causes

By Ted Schindler

You may have one or a combo of problems. First, obviously turn off the unit then repair the leak you mentioned. It may be a brittle plastic hose. They use the standard home ice maker tubing which gets brittle and with the boat vibration will certainly leak. I have cut off the offending leak area and then put the tubing back on, only to have the leak re-appear, so replace the whole tube is my recommendation. After fixing and defrosting, turn unit back on and maybe you maybe up and running. If not successful, then I would next take a look at the solenoid shutoff valve near where the water comes into the unit. You can jump it to see if it cycles on and off. If it does not work, the part can be had from a local appliance shop. If it functions on and off by jumping, then the brains may be malfunctioning. The "brains" are the mechanical timing unit just above the ice tray. There seem to only be a couple manufacturers of this part, so they are fairly easy to find and relatively easy to replace. Another option is to take the entire unit out and take to a local repair shop. You will save the travel time and the parts usually are right at the shop. The block of ice may be the result of the door not closing all the way. Good news is the solid blocks of ice are great for your coolers, last much longer! However they don't fit into the standard cocktail glass.

First Icemaker:

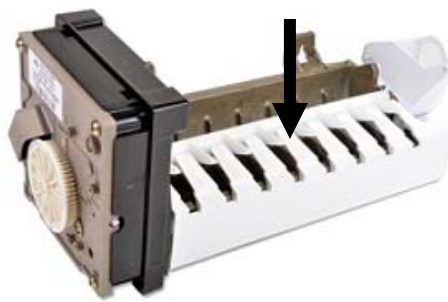
Nyla Deputy

We went over to Inner Harbor in Baltimore and got a slip up in the city at the Inner Harbor Marina—the one at the Rusty Scupper Restaurant. When we hooked up to the city dockside water, the captain remarked at how great the water pressure was. And apparently instead of throttling back on the faucet, he did his usual and opened her up. We went to Phillips Seafood for dinner. When we came back, when I got on the boat, the bilge pumps were on and I could hear the sound of water running. When I opened the sliding door I could hear the water rushing like Niagara Falls. The captain ran out to the dock and shut the water off. The icemaker bucket was overflowing. We ended up changing out the dockside water connection on the boat and did nothing to the icemaker and it was fixed. The weakest link in the water system was the water inlet in the icemaker. Actually that is better than having a larger hose blow off, like one connected to the galley sink.

On my 2nd icemaker, I had the cracked hose issue. I found out when we were on vacation and on dockside water. We went out sight seeing and came back several hours later and the bilge pumps were on. The plastic hose was cracked and the water had the carpet saturated and was running down and flooding the bilge. If the bilge pumps had malfunctioned, the water would have been really deep in the bilge. We ended up capping the hose off. On the 3rd icemaker, we never bothered hooking up the hose at all. It's there but has never been used. I go to the store and buy a bag of ice and put in there. Keeps it nice and frozen and I never again had to worry about leaving the boat and forgetting to shut off the water and lift up the arm. The thing keeps ice cream nice too.

So the moral of the story:

Most people leave their icemaker on all week. Better have the arm lifted up and the water shut off at the dock when you leave and have your pump on the fresh water system shut off. There are several things that could fail while you are gone. A split plastic hose like Ted had, a washer like Dave had and a dockside water connection like I had. And there is another way.



There is a check valve in this contraption, where the ice cubes form. I had a dock neighbor who had the check valve in here fail and water poured out instead of ice cubes. Since

this was out on the aft deck, there wasn't the extensive clean up.

In closing, if you do have a flood in the salon, watch the carpet staples.

If they are regular carpet staples and regular carpet tack strips, you can expect to see rust spots develop coming up on your carpet.



But the gas gauge says

1/4 tank.....

By Vince Greco

Today started out great! Wife and I got to the boat early and went for a little ride.

The boat jumped up on plane and was really fast! I wonder why? On our way back both engines died.

We ran out of gas with 1/4 tank showing on the gauges!!

Btw- a 351 has one big tank and two gauges. Now, most of you are smart enough to buy the towing insurance, but not me, noooo. So I called Boat US and ask them what is included with the membership. I'm a Gold member, so I'm golden right! Nope. They cover 50.00 worth of towing. Well that's hilarious. As we all know, 50 bucks won't buy sh**! I hang up and call some friends that were going to meet up with us anyway, and they towed me to the nearest fuel dock. 80 gallons and she fired right up, yeah!!!

We just happened to be in a channel, and all types of boats are flying by, and we got many strange looks, but no offers for help. I told the wife to lift her shirt and we might get some help, NOT! Low and behold, an older couple in a sailboat named "Sails Call," stops and asked if we needed a tow. "No thanks were good," I said. "Do you need any water or anything else," they asked. We were so impressed at there generosity.

Just another day of boating fun!!

Lugging around all that extra weight in the gas tank cuts down on economy. According to BoatUS, this idea is gaining popularity. But an inaccurate fuel gauge can make doing this a dangerous game. Luck was actually with Vince because he could have had this happen in some very choppy seas. He has found out the 1/4 tank means 0 gallons. He asked around on the bulletin board about the possibility of calibrating the fuel tank. Glenn Radler came up with some advice.

The way to calibrate the fuel tank sender is as follows:

Locate the fuel sender on your tank (might be accessed through a cabinet or access panel). Remove the fuel sender (merely held in by a few phillips head screws and connected to 2 wires). There is an arm with a float attached to it resembling the setup in the tank of a toilet. Manipulate the float to the full up position. Turn on your ignition key and read the gauge...it should read full. Manipulate the float to the full down position...the gauge should read empty (takes a few seconds for the gauge to catch up). IF IT DOES NOT...replace the sender. If all works as described, you can carefully bend the metal rod slightly to adjust your gauge reading to be in sync with what is in the tank. If your gauge reads more fuel than you actually have, bend the float up slightly. Bend the float down if you have less fuel according to the gauge than is actually in the tank.

IF you can get to your sender, this is a relatively easy process. For many of you, to get to your sender would require cutting a hole and installing an access panel.



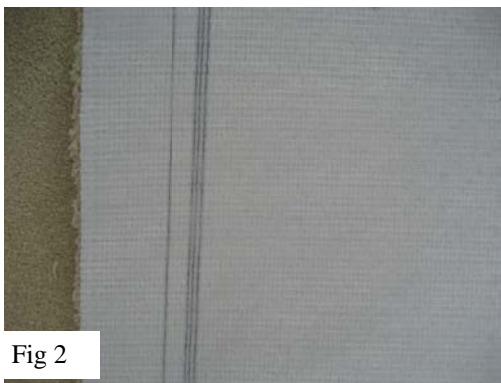
New Carpet on a 41 C By Art Aikin

Well, after several cleanings and spotting, Gail and I decided that the only solution was to replace the carpeting in our 1999 41C. I also suspected some of our "boat odor" was in the carpet. The main issue was going to be the hatch alignment. On our boat, the hatches in the passageway were



centered by the carpet itself, so if we made a change in how they were covered, we would have to change the hatch tops themselves. (Fig 1) The ones in the salon are centered by the frame-work, so they would not be as big an issue. The only problem was that we would have to seam the edges, or use binding, on every hatch. We also considered just carpeting the salon in one piece and binding the edges around the sides. But this would necessitate

moving the furniture and rolling up the carpet every time I needed to go into the engine room. In the end, we decided to replace the carpet in the original manner. After asking around and thinking about the skill level required, we decided to have it installed by a professional. I located an individual who did RVs and boats on a regular basis. We then contracted for the carpet with a local wholesaler and had the installer inspect the boat



to insure we ordered the right kind of material and to cover any issues in terms of the installation. He made two recommendations. First, he suggested we order the best padding possible and to make sure it was moisture proof which prevents spills on the carpet

from soaking into the pad where they can't be cleaned, leading to odors over a period of time, which confirmed my earlier suspicions. The other



suggestion was to order carpet with a soft backing (Fig 2) rather than jute which will scratch the woodwork in the boat when being installed. (Fig 3) The photos show the new padding with a pink cast as opposed

(Continued on page 6)

(Continued from page 5)—Carpet

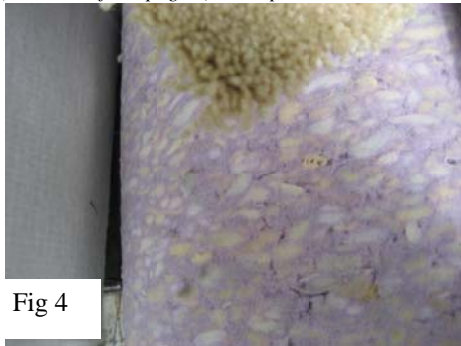


Fig 4

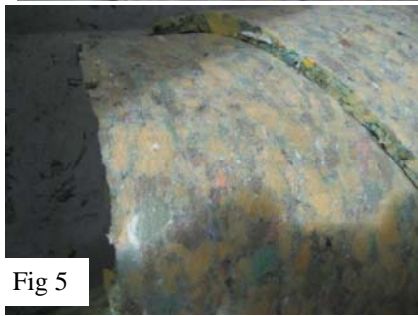


Fig 5

to the old multi color pad. (Fig 4 & Fig 5) The wholesaler and the installer estimated we would need 30 yards of carpet, which I thought was a lot. Turns out we were both wrong. After selecting a soft back neutral shade of carpet in the next to best grade,

along with the top grade of padding with a moisture barrier, we were ready to schedule the work. The installer told us that the work would take him and his partner two days to complete and if we wanted to remove the old carpet and pad, it would reduce the cost of his labor. We

decided to do this and, in fact, the entire job ended up a joint effort. I was on board while the new carpet was installed and the installer actually came around and helped with some removal where he wanted to see



Fig 6

how the original had been cut. In the end, the job took slightly less than three days and we ended up needing 33 yards of carpet! The hatches were the main problem. Some hatches had the carpet rolled under the edge (Fig 6) and others had the carpet cut along the bottom edge. In the end,

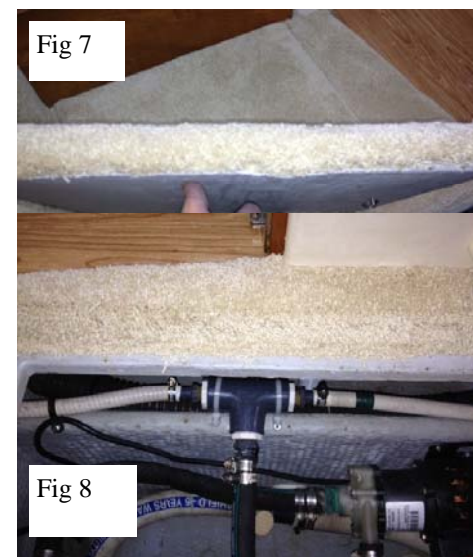


Fig 7

the installer cut and fitted the carpet and I rolled or cut the carpet to match the hatch and did some additional stapling. (Fig 7) Some of the carpet was fitted better than others (Fig 8) which was why I got involved in the final finish. I discovered the installer was very meticulous, his assistant not so much. The final installation turned out very well and we are happy with

Fig 8

the results. The last photos show the new carpet installed in the boat. (Fig 9) The first question most people have is “can I do the job myself?”

Fig 9



Fig 10

The answer is, probably. The main advantage of the installer was in the yield from the carpet and in some of the fit and finish. One photo shows him installing the entire lower deck, passage, dining area, #2 and #1 state-rooms all in one piece. (Fig 10) Besides the usual electric stapler, rubber mallet and sharp carpet knife, he had several special little tools that made the job easier and produced a better finish than some people might achieve. Also, there is no doubt that he got the best yield or cut from the carpet.

The left over scrap was hardly enough to make two good walk off mats. I watched him work, and it would probably have taken 40 yards of carpet or more if I had done it myself. I also would not have known not to use jute backed carpet that not only scratches the woodwork, but also makes rolling under the hatch edges more difficult. I would, however, make one



Fig 11

change. The grade we selected feels very good under bare feet and is fairly easy to clean. However, where it rolls between the hatch and the deck, there is a slight “valley” formed (Fig 11) due to the thickness of the carpet in conjunc-

tion with the heavy padding. I would go with the heavy padding but the next to lowest grade of carpet instead of the next to best. Bottom line, you can do the job yourself if you take your time and have the right tools. It is not as difficult as it may first appear, but you will need more carpet than you think.



Are Zincs really Zinc?

I thought zincs were made of zinc, but I've noted some zincs seem to be made of aluminum. What's with that?

What is commonly referred to as a “zinc” is really a sacrificial anode generally bolted or welded to underwater marine gear to protect that gear against galvanic corrosion, caused by two dissimilar metals being connected in water. The anode is corroded (sacrificed) rather than the gear. Traditional anodes, made primarily of zinc, contain small amounts of cadmium, and elevated cadmium levels have been found to be toxic to marine life. This has led to the development of sacrificial

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Tales from the Crypt ---- or how can they build boats without planks and screws?

By Rich Rylander

Up until a few years past my formative years, I owned wooden boats. Back in the days before Willis Slane Jr. started playing with fiber-glass reinforced plastic, that's what boats were built of. Some were plywood on wooden frames, some were wood planking on wooden frames and some were "cold molded" strip planks on wood frames. All were LOTS of work to maintain!

On the occasional visit to an older boat yard (not a marina) you will probably still find one, resting it's bones on a cradle or poppets, way in the back of the yard. Also in one of these shrines of history (my term not theirs) you may come across an old salt who when asked about wooden boats, will undoubtedly say "nothing rides like a wood boat." It's true, in a plastic boat you can go hundreds of feet without ever having to lift a hatch to be sure you're not sinking. In a plastic boat you can put gigantic outboards on the transom and not worry about it falling off on the next turn. On a plastic boat you won't have to worry about worms eating their way through your keel, unless you get a case of polyestermmites, then all bets are off.

Although I have now owned more "plastic" boats than wooden ones, there truly is nothing like a wood boat. During refinishing either for paint or varnish, you feel the grain of the wood. While fitting a new plank or bending a new rib, you can feel and smell the life in the wood. I can tell you the sense of accomplishment you receive by waxing a hull does not even come close to the feel of a good varnish job on a mahogany transom.

But alas, age and perhaps a little good sense have relegated me to plastic boats and they do have their strong points. In the northeast you can be back on the water before June. You can leave one sit in the slip for a couple of months unattended and not have to do much more than a good wash down when you return. When you haul in the fall, you won't have to worry about if the yard will block the rub or spray rails properly to prevent lifting them. And yes in the spring, three good days work will mean your ready for the water!

But, if the next time a wooden boat in "bristol fashion" passes you by and you don't feel a flutter in your gut, take a tour through Mystic Seaport in Mystic CT or The International Yacht Restoration School in Newport RI or The Chesapeake Bay Maritime Museum in St Michaels, Maryland and you will know what I mean. As with any great relic from the past, thank heaven there are people with the time/talent and resources to bring them to life.



PVC Plumbing

Dear Steve

I'm wondering why PVC pipe is not allowed as part of a system. I have used several short lengths of 1 1/2" PVC for the head discharge plumbing with isolated short lengths of standard sanitation hose at both ends. In other words, my PVC lengths float between (relatively) flexible lengths of the thick black, wire-reinforced, sanitation hose. Since the PVC does not permeate like sanitation hose does, it is somewhat permanent and desirable. I'm about to replace one long length - about 2' long in an isolated location - of very smelly sanitation hose with 1 1/2" PVC. Is this PVC pipe application using flexible hose at each end acceptable? I understand and agree that a rigid PVC connection is dangerous and unacceptable.

Signed

Captain DIY

Dear Captain DIY

Thank you for the note and query. The question you've posed is not only a very good one, it's also one that's commonly asked. The "rule" regarding the use of PVC is strictly my own, however, it's based on firsthand experience of failures where this material is concerned. I've seen dozens of PVC plumbing components fail in marine applications (see attached example photos.) I suspect failures are exacerbated by vibration, extreme temperature cycling and excessive leverage that is often imparted on these installations.



It is not uncommon to break off the end of PVC barbs when removing the hose, as happened to these two water maker fittings; they were just two years old. In most cases, PVC simply doesn't

have the strength for raw water plumbing.

There was a time when ABYC seacock standards cited PVC's inadequate modulus of elasticity and tensile strength, however, that wording is now no longer used and PVC isn't referenced specifically.



The guidelines do specify that any seacock installation must be able to withstand the application of 500 pounds of static force for a duration of 30 seconds without failing to perform as intended (I read that to mean it doesn't break, leak or seize.) I'm fairly sure few PVC valves could withstand such a test. It's important to point out as well that ABYC guidelines have no bearing on raw water plumbing other than the actual seacock, while my "standards" do cover all raw water plumbing. A failure of a seacock is only marginally more serious than a failure of a large raw water plumbing fitting, especially if the vessel is unattended.

My personal durability test calls for any components that could lead to flooding in the event of a failure, to be able to withstand being stood upon. If I can't stand on it without worrying about causing a failure and flooding, it's simply not rugged enough. Many PVC components and some metallic ones won't pass this test.



Sea water strainers should also be strong enough to pass the "stand on it" test. This VC flush fitting on a Plastic Sea Strainer failed and could easily have flooded the vessel. For all of those reasons, I'm no fan of PVC raw water plumbing. Having said that, for use in sanitation systems, where a failure won't

lead to flooding, they are well suited, particularly when they are isolated at either end by flexible hose, as yours are.

Sincerely,

Steve D'Antonio



Cleaning A Heat Exchanger

Questions For Surveyor Steve D'Antonio

Hello Steve,

I have twin Yanmar 6LYA-STP engines (370 hp) that I have maintained since new in 2004. Although I have only 500 hours on the engines, I have been told that I need to pull apart my complete raw water circuit and look for salt/crud buildup and corrosion. This includes the engine coolant heat exchanger and oil cooler, the turbo intercooler, the transmission oil cooler and the exhaust elbow. The engines run smooth and cool and there is no sign of water, coolant or oil leaks. All routine seasonal maintenance has been done by the book. I have been told to do this because the "marine age" is high (9 years) with the boat in salt water even though the hours are low. What do you think? I am concerned that the so called "preventive maintenance" may cause more trouble than it is worth as well as being very expensive. Can you put a ballpark number on the cost of an inspection, disassembly, cleaning and reassembly assuming no major issues are found? Are there any other engine issues that might occur with low hours, infrequent use and marine age?

Signed

Captain Mike

Dear Captain Mike:

Engine and transmission heat exchangers should be periodically checked to ensure their cleanliness, every other year or every 500-750 hours,



which ever comes first. Debris and scale can clog both the sea water as well as the coolant sides, dramatically inhibiting the transfer of heat necessary for a cool running engine.

The traditional cleaning method: (left) this heat exchanger has been removed for immersion in a cleaning solution. This is sometimes necessary, but not always. Now,

cleaning can be carried out without removal or major disassembly.

This is an excellent question. Indeed, based on the passage of time, your mechanic isn't incorrect, most engine manufacturers and maintenance programs recommend disassembly, inspection and cleaning before this stage in an engine's life, regardless of hours. My own rec-

ommendation calls for inspection and cleaning, but not necessarily disassembly, of the engine's main heat exchanger every two years. However, you do have an alternative, at least for part of this process. **A proprietary "run bucket" like this includes a pump immersed in cleaning solution and hosing to connect it to the**



raw or coolant sides of an engine, generator or air conditioning system.

You could clean all of these components, except the exhaust elbow, using a proprietary cleaning agent and pump system available from Trac Ecological. The cleaning solution http://trac-online.com/index.php?option=com_virtuemart&Itemid=62 and http://trac-online.com/index.php?option=com_virtuemart&Itemid=73 are used together to clean raw water cooled components. I've used or supervised the use of this

system many times and can attest to its effectiveness.



This heat exchanger (left) obviously had not been checked for some time. Nearly half of the surface area of the tubes were blocked by old pencil zincs and scale. And yes, the engine

was chronically overheating.

The cleaning protocol will remove lime scale, barnacle and other shell material as well as zinc anode "debris," however, it will have no effect on rubber such as impeller parts, pine straw (I've seen this clog heat exchangers) or sea grass. For this reason, I still recommend the main heat exchanger end caps be removed for inspection purposes, and if there are any heat exchangers in line before the raw water pump, for hydraulic or fuel cooling for instance, these too should be inspected.

In the latter cases these heat exchangers typically cannot be disassembled, which simply means removal of the inlet hose and a look inside with a flashlight.

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(Continued from page 8) Q &A With Steve



Blockages in the injected water discharge holes can cause hot spots in the exhaust hose, which can in turn fail as a result. Such a failure can be devastating as no overheat or other warning will be given to the operator and the engine room/compartments will be filled with hot, atomized seawater and soot.

Because cleaning solution can't be easily circulated through it using the above-mentioned pump system, the exhaust elbow would still have to be inspected visually, which would require removal of the hose. Exhaust elbow spray rings do suffer from blockages and corrosion, so a thorough visual inspection every three or four years is a good idea.



Jester is running the free hat offer again. Every order placed until August 31, 2013 will get a free hat. The code for the hat is SY2055
http://www.jesteronlinestores.com/silverton/cart.php?m=contact_us
 We run an ad weekly for Jester in the E-news



The pennant (left) is an appliquéd pennant. It consists of two correct reading flags sewn together (10) 12"x18" = \$46 (Double based/read correct on back)
 46.00 pennant
 3.688% sales tax
 1.61 PayPal fee
 6.00 shipping
TOTAL \$ 57.29

Ordering Information—Ordering being handled by Scott Grimes.
 Email Scott for details on acquiring one of these high quality pennants
kscott.grimes@yahoo.com

Interior Cleaning

With all the carpet found on boats, every so often we end up with spots that need cleaning. Due to the high traffic areas, dog accidents, etc., a small carpet cleaner is a good investment. Hoover and Bissell each make a couple good ones. All the cleaners shown here are Bissell models.



Fig A



Fig B



Fig C

The one in Fig A is \$49 but it is only good for cleaning spots on the floor. You can't clean furniture or other places that have fabric covering because there is no hose or small attachments to do the job. Fig B is the Bissell Little Green Machine. It comes with an attachment for upholstery but it doesn't have a brush scrubber for scrubbing up carpet on the floor. Fig C can do it all. Scrub up the carpet and clean upholstery. A lot of boats not only have carpet and furniture upholstery that needs cleaning but they also can have fabric head liners and padded fabric window treatments. Some of the older models have what is known as "monkey fur" covering the walls in the forward stateroom among other places. This was a white fuzzy carpet that was used to dress up the area and was good for insulation and sound deadening. Trouble is, it tends to attract dirt/dust mildew. Even though you don't walk on it, it can get dirty. Trying to spray walls with the spray handle on the cleaner is messy.

So get a couple of spray bottles. Fill one with carpet cleaning soap and the other with a mixture of water and bleach. Soak up the area pretty good with the stuff in the spray bottles and let it sit for a bit then get the carpet cleaner (Fig B or Fig C) and take up the dirty solutions off your monkey fur. If you are cleaning any other fabric besides the monkey fur, be careful with the use of the solution of water and bleach. After extracting out the dirt and mildew, you will be surprised at how clean it looks and fresh the air is.



Docks with Bad Wiring Continue to Prove Deadly

"Tragic Deaths Were Preventable" - What You Need to Know

Last year over Fourth of July weekend, two children were swimming near a homeowner's dock on the Lake of the Ozarks in Missouri when they started to scream. By the time the siblings were pulled from the lake, they were unresponsive and a short while later were pronounced dead. Two hours later on Cherokee Lake in Tennessee two other children died in a similar manner. These were not drowning victims. In all four of these cases, 120-volt AC (alternating current) leakage from nearby boats or docks electrocuted or incapacitated swimmers in freshwater. This little-known and often-unidentified killer is called [Electric Shock Drowning](#) or ESD.

"Every one of these deaths was preventable," said Boat Owners Association of The United States (BoatUS) Director of Technical Services Beth Leonard. "Any boater and every adult who swims in a freshwater lake needs to understand how ESD happens, how to stop it from happening, and what to do - and not to do - if they ever have to help a victim." To help them with this vital task, BoatUS has put together a new online Electric Shock Drowning Resource Center to educate and inform the public about ESD at BoatUS.com/seaworthy/ESD.asp, and offers helpful tips below.

"An effort to increase safety standards on marina docks has been underway for several years now, but few resources have been available for the general public," said Leonard. "ESD is a complicated subject, and what information has been available for boaters, private dock owners, and swimmers has, all too often, been inaccurate, incomplete, or misleading. Our Electric Shock Drowning Resource Center addresses this problem with a range of helpful articles and presentations, all of which have been vetted for technical accuracy. We'll continue to add to and update this material to ensure it remains a valuable source of information," she added.

So what should boat owners, private dock owners, and swimmers do to prevent ESD?

IN GENERAL:

Tell others about ESD. Most people have never heard of it and are unaware of the danger.

To retrieve a person in the water, reach, throw, and row - but don't go.

Make sure your children understand the importance of not swimming anywhere there could be electricity. Don't let them roughhouse on docks. Tell them what to do if they feel a tingling or shock in the water (see below).

ESD victims are good candidates for successful Cardiopulmonary Resuscitation (CPR). Learn to perform CPR and maintain your training.

IN MARINAS:

NEVER swim within 100 yards of any freshwater marina or boatyard. Talk to marina owners or operators about the danger of ESD. Ask your marina operator to prohibit swimming at their facility and post signs.

Ask marina operators if they are aware of and follow the guidelines in National Fire Protection Association (NFPA) 303 (fire protection standard for marinas and boatyards) and National Electric Code (NEC) 555.

IF YOU HAVE A BOAT:

Have your boat tested once a year to see if it is leaking electricity, or buy a clamp meter and test it yourself. If you find any problems, have your boat inspected by a qualified electrician trained to American Boat and Yacht Council (ABYC) standards.

Have a qualified ABYC electrician install an Equipment Leakage Circuit Interrupter (ELCI) on your boat (refer them to the ABYC E-11 Standard) or use a Ground Fault Circuit Interrupter (GFCI) in the shore power cord. As an alternative, install an isolation transformer on the boat.

Test the GFCI/ELCI at least once a month or per the manufacturer's specifications.

Do NOT do your own 120-volt AC electrical work on a boat or hire an electrician who is not familiar with ABYC standards to do it. Many of the problems that lead to an electrical fault on the boat result from the differences between shore and boat electrical systems and standards. DO NOT use common household extension cords for providing shore power to your boat. Use, and encourage other boaters to use, shore power cords built to UL standards, ideally with a GFCI built in.

NEVER dive on your boat to work on underwater fittings when it is plugged in to shore power, even in saltwater.

IF YOU HAVE A PRIVATE DOCK:

NEVER swim within 100 yards of ANY dock using electrical power!

If you have not electrified your dock or put an AC system on your boat, weigh the risks carefully before doing so.

If you need electricity on your dock, hire a licensed electrician and make sure the wiring meets the requirements in NFPA 303 and NEC 555. If your dock is already wired, hire an electrician to check that it was done properly. Because docks are exposed to the elements, their electrical systems should be inspected at least once a year.

Exercise your GFCIs/ELCIs as recommended by the manufacturer.

If you normally run a power cord from your house or garage to charge your batteries, make sure the outlet has a GFCI and include a GFCI somewhere in the shore power cord.

NEVER swim off your dock without shutting down all shore power to the boat and the dock.

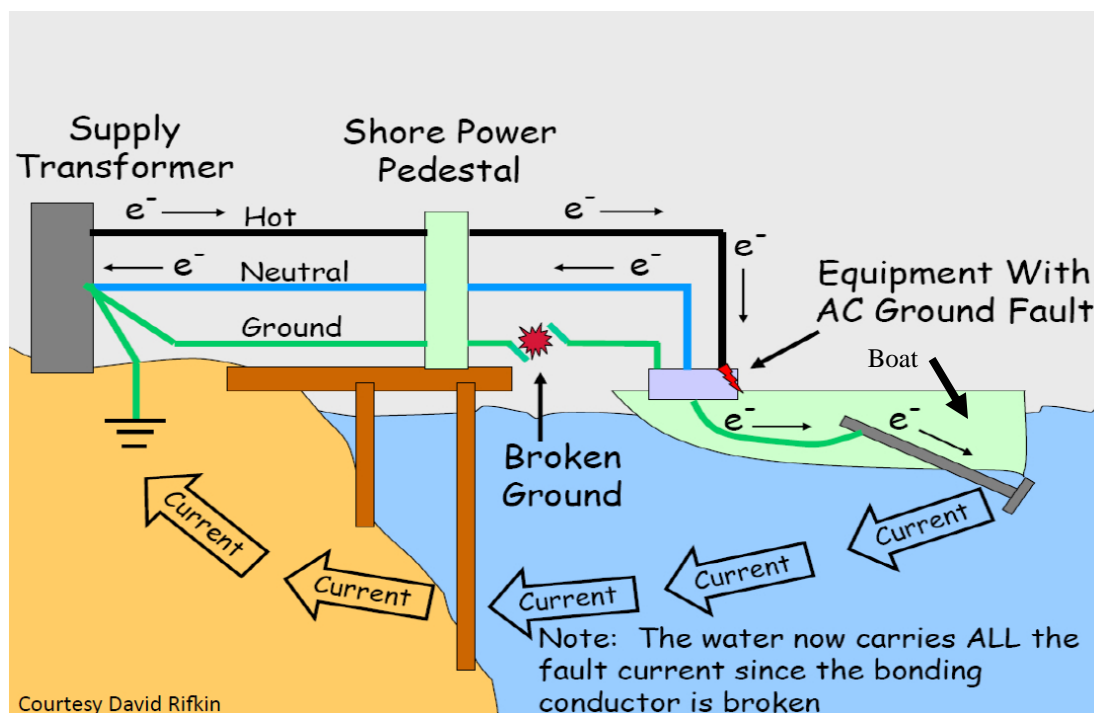
Even if you adhere to all of these rules, nearby docks can still present a shock hazard. Educate your neighbors and work together with them to make the waterfront safe.

IF YOU'RE IN THE WATER AND YOU FEEL TINGLING OR SHOCKS:

DO NOT follow your instinct to swim toward the dock!

SHOUT! When electricity is not involved, drowning victims cannot speak, let alone shout. Tell those around you exactly what you're feeling

(Continued on page 11)



Courtesy David Rifkin

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1006 4 th Street, South
Building #4
Safety Harbor, Fl 34695
www.boatsteeringrebuilders.com



(Continued from page 10)—Bad Dock Wiring

so they can help you while keeping themselves safe.

Try to stay upright and back out of the area the way you came, warn any other swimmers in the area of the danger, and then head for shore 100 yards or more from the dock.

Alert the dock or marina owner and tell them to shut the power off to the dock until they locate the problem and correct it.

Go to the hospital, explain what happened, and ask to be checked over to be sure there are no adverse health effects.

IF YOU HAVE TO RESCUE AN ESD VICTIM:

Know how to distinguish drowning from ESD (drowning victims cannot speak and look as if they are trying to climb a ladder; screaming, shouting and tingling, numbness, or pain indicate ESD).

Fight the instinct to enter the water - many rescuers have died trying to help ESD victims.

Call for help. Use 911 or VHF Channel 16 as appropriate.

Turn off the shore power connection at the meter base and/or unplug shore power cords.

Get the victim out of the water. Remember to reach, throw, row - but don't go.

If the person is not breathing or you cannot get a pulse, perform CPR until the Fire Department, Coast Guard, or ambulance arrives.



(Continued from page 6)—zincs

anodes made primarily of aluminum, and their manufacturers say they work better in salty or brackish water than traditional zincs.

I am trying to figure out what kind of mooring lines to use on my 38-foot boat. I also have a friend buying a new boat, and we are both wondering what kind of lines to buy. What type should we use?

There are stranded and braided lines, and all the different sizes, lengths, splices, etc. As you did not mention the size of your friend's boat or whether you have power or sail, I will make some assumptions and answer more broadly. Most sailboaters seem to prefer a three-strand type of line, which works well and is less pricey. Braided is better looking (subjectively), easier to maintain and has more color options. Three-strand line also has the advantage of easier splicing. After a little practice and with some instructions in hand, I was very successful in splicing my own three-strand rope to the anchor on our 39-foot motoryacht. It is basically the same as making an eye splice on a dock line.

All this being said, I prefer high-quality braided line made for the size of the boat. A rule of thumb is 1/8 inch for about every 9 feet of boat length. We use 5/8-inch braided. I buy different lengths, always with an eye already spliced on one end. The bow line attaches to the very forward cleat via the eye splice. I then tie it off on a cleat and return the line to a cleat halfway back on the bow — 35 feet seems to work well in most cases. For the aft line I use a 15-foot line with a snubber. In this case, the eye is on the aft cleat and goes to a dock cleat with the snubber placed as close to the aft cleat as possible without touching the boat. Then the aft line returns to the same aft cleat on the boat. For spring lines, I use 15-foot lines. Beyond this, I have at least two other 15-foot-plus lines. All the lines are braided, other than the stranded anchor rode. A final important note: Whenever you untie from the dock, make sure your lines are secured to avoid a line wrapped around a prop or in the thruster. Ensuring line security can be a temporary delay, but not doing it can cause major damage.





Silverton Owners Club

P.O. Box 9287
Ft Myers, FL 33902

Vaperetto

2002

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Motoryacht

Docked at
Parkside Marina
Middle River, Maryland

Owned by
Biff & Jessica Benson
Abingdon, Maryland



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