

A NOTE ON TOXIC ANTIFREEZE

For inboard diesel and gas engines, most boaters (and professional mechanics) now use non-toxic antifreeze solutions to freeze-protect the raw (sea water) side of their engines during the winter freeze, but if you or your mechanic used ethylene glycol-based antifreeze (Prestone or a similar lime-green-colored solution often found in automobiles), you will need to make arrangements to dispose of it properly. This antifreeze is very toxic to marine life, not to mention criminal to discharge onto land or water (starting your engine and letting it spit out in to your local tributary is not the proper way of disposing of it).

You will need to place a bucket over the exhaust discharge and collect as much as you can until clear water is flowing. Most marinas and public landfills now have facilities for disposing of used antifreeze once you have collected it.



Put your air conditioning system through its paces.

engine, check the inlet seacock, raw water strainer, hoses, clamps and any pipe fittings for wear and tear and replace any worn parts.

Once you have given the system a complete survey, fire up the compressors and hop outside to make sure the water circulation pumps are pushing water briskly through the system (assuming you have a water-cooled system). Put the systems through their paces and make sure they are working to specifications.

For the air conditioning system, check the system's cooling AND heating functions. For your refrigerator, leave it running for several hours, and then check the temperature with a simple thermometer to manufacturer's specifications.

As with the other systems we have covered, make a list for your spares kit if you do not have any replacement parts for your refrigeration or air conditioning pumps and strainers.

Marine Sanitation Systems

Before winter lay up, your entire sanitation system (heads, macerator pumps, holding tank and any Y-Valves) should have been thoroughly flushed with freshwater, and then evacuated through your holding tank. (Overboard discharge of effluent is illegal in all 50 states, so we'll assume - and hope - that everyone is using a holding tank to hold their waste until pump-out time.)

Once this is accomplished, the antifreeze should have been worked through the entire system until all the discharge hoses leading to the holding tank "spit" pink antifreeze.



Properly flush the entire freshwater system with clean water to get all of the antifreeze solution out of the hoses, mixers and control valves.

SPRING PREP GUIDE

EXERCISE THOSE SEACOCKS!

Simply put, your boat's seacocks are the only things that stand between you and the deep blue sea. Although most boaters open them during spring commissioning and then forget about them for the entire season, it is a better practice to "exercise" these valves once a month during the season by opening and closing them several times.

Also, when leaving the boat for an extended period, close off any non-essential seacocks to lower the risk of a sinking if a hose fails, a check valve breaks, or a hose clamp comes loose. While this may seem like a real pain, several boat owners who left their boats unattended for extended periods now wish that they would have closed a couple of their non-essential sea cocks while they were away. If you are going to be gone, there is no reason you need to have your engine, A/C, marine head, baitwell or other non-essential valves open. Just remember to open them back up upon your return (especially the engine valves).

Before commissioning your onboard sanitation system, you will want to make the requisite check of all hose clamps, hoses, seacocks, pipe fittings and barbs, valves and pumps. Repair or replace any suspect pieces, and make a list of spares for your heads, macerator pumps or valves that you may end up needing during the season.

Once you have completed a thorough check of the entire system, open up the intake seacock valves and run seawater through the entire system (manually pumping a manual head or actuating an electric one), making sure that clear seawater is reaching your holding tank. Keep a good holding tank detergent on hand for the season. A properly maintained holding tank really shouldn't stink up the whole boat. If it does, you have got a problem in the system somewhere; have it checked out. Most municipalities require that you have your Y-Valve and discharge seacock valve (if equipped) cable tied or locked to prevent overboard discharge of sewage; you will want to ensure this is taken care of, too.

Bilge Pumps

Bilge pumps should have had any water evacuated out of them in the fall and winter and then filled with non-toxic antifreeze. Commissioning them is easy: Fill the bilge with some water and pump it through. Make sure all of the hose clamps, hoses and strainers are in good condition and that the pumps are working effectively. Check the wiring and electrical connections for corrosion on electric pumps and check the seals on manual pumps. Make a list of part numbers for your spares kit.

Freshwater Systems

Start out by making a complete inspection of the system: hose clamps, hoses, pumps, accumulator tanks, fil-

ters and fixtures should all be in good shape. If you cannot remember the last time you changed your freshwater filter, do that now.

Also, if you have not already done so, write down your freshwater pump's make and model, along with any other freshwater system components you may need for your spares list. At a minimum, you need to have a repair kit for your freshwater pump aboard.

Assuming your water tanks were emptied during the winterization process, go ahead and fill them up first. Now is a good time to add any water freshening chemicals (Sudbury's Aqua Fresh or Starbrites Aquaclean both work well). Once full, pressurize the system by turning on the freshwater pump at the circuit breaker and start opening a fixture at a time (don't forget your shower mixers, both inside and out) until clear water flows through.

You may need to run a couple of tanks of water through the system until good clean water is flowing, but it is sometimes necessary to get rid of any residual antifreeze "taste." While performing this procedure, give your freshwater pump a break every 10 minutes or so to allow it to cool down. This will extend the life of your pump.

Hot Water Heaters

These should be drained at winterization time. In the spring, remove the heater element and check for corrosion of the element, and also inspect the integrity of the o-ring seal. Some hot water heaters also have sacrificial anodes, which you will also want to inspect. Check the manufacturer's specifications for your unit for replacement part numbers. Replacement elements and anodes are usually available at your local marine supply store, and if not, they are easily orderable. Make sure that the heater is full of water before turning on so that you do not burn out the heating element.



Check all hoses and clamps and also close off all unnecessary seacocks after winterizing them.



Give your head a thorough inspection and a good flush of seawater to clear the antifreeze.

Batteries

In an ideal world, you have kept your batteries on a trickle charge in your garage or basement all winter to ensure that they did not freeze. In boats or installations where this just is not possible (think heavy, 150-pound 8D-size batteries), it is always a good idea to keep a charge on the batteries during the winter months (both trailered or in-the-water boats), and to check on the battery's water levels every few weeks if you leave them onboard and on the charger.

Never, ever leave your batteries for long periods of time without charging them. All batteries will self-dis-

charge over time (some quicker than others), and leaving a battery in a discharged state for a long period of time is a sure-fire way to shorten its life span.

Once the batteries are back in the boat (or when you are ready to give them their spring check-up), non-sealed lead-acid batteries should be inspected to ensure that each battery cell has enough fluid, and that the battery has a proper voltage (a cheap Radio-Shack multi-meter will work if you do not have an integral voltmeter aboard).

If a cell is low, add an appropriate amount of distilled water to top it off. For sealed gel, absorbed glass mat (AGM) or maintenance-free batteries, a voltage check and general inspection of the batteries posts, vents and casing are all that are required as these batteries use gelled electrolyte, which is sealed in the battery. Fully charged lead-acid batteries should have a charged voltage of 13.8 to 14.1 volts. Gel-cell and AGM batteries have special charging requirements; check your manufacturer's specifications for your specific model.

Now is the Time to Prevent Headaches

Preparing yourself a list of spares, properly commissioning your systems and inspecting each and every component of your vessel's internal workings before setting off on your first voyage is more than important; it is essential. Taking some time now to prepare for the season will ensure that you can do what we all want: enjoy our boats and avoid expensive down-time repairs.



Carry spare engine impellers aboard.