

It's Time to Winterize

Don't learn the hard way!

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This is the time of year when all good cold-climate sailors ask themselves "How do I prepare my boat for the winter?" It's important first to understand **why** you should winterize. Winter brings freezing and (even worse) subfreezing temperatures. These temperatures naturally cause liquid water to become solid water, a/k/a ice. But freezing water does more than turn solid; as it freezes it also expands.

Now imagine all the places where water might freeze on your boat: engine, thru-hulls, plumbing, fresh-water pump, bilge and more. When water-turned-ice expands in enclosed places the results can be disastrous. Pipes, hoses, thru-hull valves and engines can all crack. And usually the disaster isn't apparent when the crack first appears. It's when the ice melts that all hell breaks loose. When the ice turns back to water your boat can flood and sink. The bottom line, then, is winterize, winterize, winterize!

Here are some things to consider as freezing temperatures set in:

Engines. Whether your engine is an inboard, outboard, or stern drive it's important to winterize. While running, boat engines stay cool by pumping water through themselves. When engines stop they still contain water. It is essential to make sure that you've added antifreeze to any water left in your engine. Your inboard may contain both enclosed fresh water and open raw-water cooling systems.

An enclosed water system is much like the cooling system in your car (the one that pumps water through your radiator). You put the water into the engine or reservoir, add antifreeze/ coolant, and check it regularly to be sure it has enough water and antifreeze. The device used for checking your antifreeze level can be purchased at a local auto parts store. Just like your car, make sure you have enough antifreeze to protect your engine to temperatures below -50 degrees Fahrenheit.

Most engines (inboard, outboard, and stern drive) use at least an open-water system for cooling, even those that also have enclosed water-cooling systems. These also need to be winterized. The trick to winterizing the open-water system is to suck RV antifreeze into it until the water turns the same color as the antifreeze, usually pink or blue. It's important to note that enclosed and open-water antifreezes are different. The glowing, thick, yellow greenish stuff you put into your radiator is only for closed- water systems. Unlike the pink or blue stuff for RVs, closed-system antifreeze is highly toxic. To add open raw-water coolant to your engine, remove the intake hose from the thru-hull and run the engine until the water comes out pink or blue.

Fuel System. While we're talking about the engine it makes sense also to pay attention to the fuel system. It's important to fill your fuel tank over the winter so water doesn't accumulate in the tank. You should also add a fuel stabilizer (like "Sta-Bil") and change the fuel filter.

Plumbing. The plumbing on your boat consists of the fresh-water tank, water heater, water pump, holding tank, head, Y-valves, and other valves. Empty the water from these by running the system until the water pump sounds strained and no water comes out of the faucets. When this step is complete, pump blue or pink antifreeze throughout the system until the flowing liquid is pure

antifreeze. Flush your toilet several times with clean, fresh water, allowing it to drain into your holding tank. Then, pump out your holding tank into a USCG-approved pumpout station. When your toilet, hoses, and holding tank are empty you can add the pink or blue antifreeze.

Electrical system. Because your batteries run your bilge pump, it's important that they maintain a charge. Make sure your batteries are charged for the winter and check your on-board charger to confirm that your batteries will continue charging after they naturally discharge.

Storage. If you plan to store your boat on the hard be sure to follow the above steps. Also make sure that your thru-hull valves are open and emptied. Remove your sails and batteries; they don't do well in the snow. If you store your boat in the water, it's important to get a bubbler and thermostat or the ice around your boat may damage it.

And finally... Don't learn about winterizing your sailboat the hard way...

