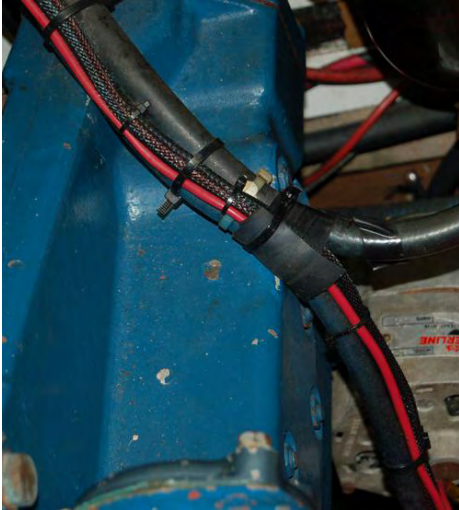


# Startup Safety Checklist

By Tom Neale

Good spring prep increases safety and fun for the entire boating season. Follow these tips to help you build your own list

- Check things that might have deteriorated during winter**, including exterior wiring connections for navigation lights, dock lines (chafing or freeze damage), life jackets (mold, rotten threads or fabric), paper charts, pipes including cockpit drains that were subject to ice damage, and hose clamps.

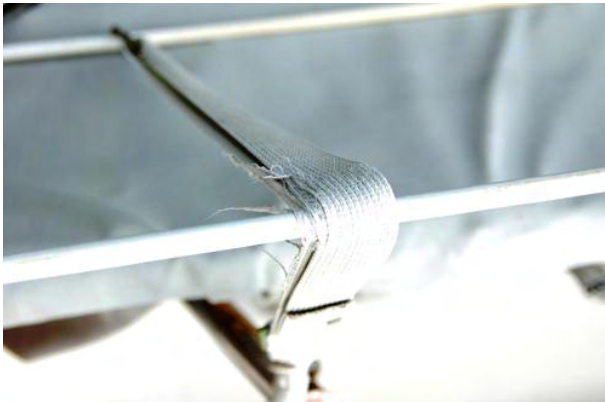


Check wires for chafe.



Check hoses and hose clamps. The bottom one could use replacement.

- Move the rudder.** If it turns with undue resistance or if there is too much play, find the cause and fix it. Check steering and control systems (cables, control box, linkages, hydraulic systems). Replace swollen, stiff, or rusty control cables.



Check for chafe and wear of canvas and lines. Replace as needed.



Check rudder and rudderpost. There is a problem here. Check if rudder turns freely

- Check for freeze damage** where water may have entered confined areas. Examples are around gel coat cracks, the rudder shaft seal, prop shaft seal, and thru-hull fittings. Examine cored transoms on outboard boats for cracks that could have allowed water into the transom.
- Check that vent hoses** haven't become clogged.
- If your boat has been under cover**, check for deck leaks, particularly around wooden areas. Run water from a hose over possible problem areas.

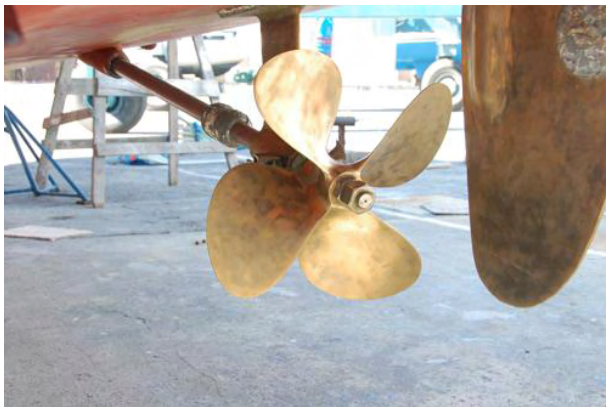


Look for signs of electrolysis or other corrosion.



If your sailboat keel is bolted on, check the bolts and the keel itself. This strut was replaced.

- Replace deteriorated zincs.** Clean contacts of wires attached inside the hull to zinc bolts. If the wire is corroded at the terminal, replace with tinned boat wire.



Check and clean running gear, replace zincs as needed



Check hoses for cracking or other signs of deterioration.

- Check engine oil levels,** particularly if your boat was left in the water. High levels may indicate water intrusion that requires work immediately to save the engine. Check oil reservoirs including tilt/trim on outboards, some windlasses, and hydraulic fluid in steering systems.
- For I/Os,** carefully check the bellows for any deterioration.



Author checks “under the hood” of his outboard.

- Check and test communications equipment.** Test EPIRB/PLB batteries, and verify that the registration is current. Verify that your MMSI is correctly entered into your DSC radio, and/or update your information at [www.BoatUS.com/MMSI](http://www.BoatUS.com/MMSI).
- Check for moisture in the fuel tank.** If you didn't leave your tank topped up to almost full with appropriate additives and you've been using E10 gas, you may have water in the tank from condensation and phase separation, which could damage your engine. Draining and replacing the fuel is sometimes needed. If it is, hire a qualified professional. Replace fuel filters even if new.
- Check fuel lines and fittings.** Look for signs of leaks such as discoloring around a fitting. Replace any line or fitting looking impaired, per ABYC and USCG standards or better. Secure any loose lines.
- Carefully examine the galley stove.** Check connections and plugs for the electric stove and check the burners. For gas stoves, check fittings, line, and emergency shutoff solenoid valve and solenoid wire connections at the switch and solenoid.  
**Check end plates of engine heat exchangers** for white or greenish discoloration indicating water seeping past seals. Many manufacturers recommend these seals be replaced every year. Check all other water seals, including around the raw-water pump, freshwater pump (where it mates to the front of the block and weep hole underneath). Look for signs of corrosion, salt, or antifreeze residue.
- Test navigation equipment.** Depth-finder transducers may be damaged by cold, particularly if water has migrated through cracks in the plastic.
- Load test batteries.** Check the electrolyte level and specific gravity if applicable. A simple voltage reading with a volt/ohm meter won't tell the whole story, nor will just testing to see if it can turn over the engine.
- Replace fire extinguishers** if needed. Invert hand-helds, tap hard on the bottom with the palm of your hand, and shake. Do automatic extinguishers need servicing?
- Replace flares** if they show any sign of damage or are outdated.
- Is your toolbox wet** inside from condensation or leaks? Are tools such as pliers and adjustable wrenches rusted?



Check anchoring equipment. You want to reverse the chain on an all-chain rode.

- Remove antifreeze in drinking lines.** Check heads and hot-water heater for cracks, even if you drained them or added antifreeze.
- Test smoke and carbon monoxide alarms** and change batteries.
- Clean raw-water strainers** for the engine, generator, air conditioning, head, and any others. Check gaskets and/or O-rings.
- Check prop(s) for dings, bent blades, or damage.** Consider sending them to a prop shop for refurbishing. Grab the shaft and try to wiggle it. If there's play, the cutlass bearing needs replacing. Check the hull and all underwater components. If you have a bolted-on keel, check for seepage or signs of rust or other deterioration.
- Test bilge pumps and alarms.** If the float and alarm switches for your bilge pump(s) can't be activated manually, or you can't reach them, use a hose to fill the bilge enough to see that the pumps and alarms work.

- Test bilge blowers** and check their hoses for tears or disconnected fittings.
- Check thru-hull fittings and hoses** before launch, lubricate (per the manufacturer's instruction), and work each.



Turn through hull valves and service if needed



Check shaft inside boat, shaft log and stuffing box. Replace stuffing if needed.

- For waxed twine stuffing boxes for the rudder and prop shaft**, replace the twine and tighten. While the seal is disassembled, check the shaft where it's normally concealed by the seal, for crevice corrosion or wear, particularly if the boat sits for long periods without running. Don't over-tighten; a slight drip is OK. Tighten again once you've run the boat, if needed. Inspect "drip-less" shaft seals including the lubricating water hose for free flow of water to the fitting, if you have that type.
- When the boat is launched**, check bilges, all thru-hull fittings, below-water hoses, and any other relevant areas for seepage.
- Run the engine(s) at the dock at idle**, or slow for at least 15 minutes, and then away from the dock, at varying speeds, but within easy towing distance.



Bottom is freshly painted, engine and other equipment checked, and boat is ready for spring launch.

- Sailboats:** In addition to the above, check and service winches, furling gear, blocks and cars, all standing rigging before the sails are put on, then check and work all running rigging with the sails on. Check swage fittings for any signs of cracking or other deterioration. Also check tangs on the mast where stays are attached. Check chain plates above and below deck for cracks or other deterioration, and check the structure where plates come through the deck for leakage or deterioration. Look for broken strands in stainless cable.

Remove any tape covering turnbuckles or other areas, inspect underneath and replace tape if needed after servicing. ⚠️



This spring checkup revealed the need for a new shaft, cutlass bearings, and reconditioning of the prop. This is more than routine yearly maintenance. Camachee Cove Yacht Yard worker removing shaft during spring maintenance.



New struts, paint, zincs and ready for launch.



A fresh coat of bottom paint