



CHUBB®

Going into Lay-Up

Important recommendations for winter preparation



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GOING INTO LAY-UP

It's been a great summer of boating and now it is time to begin *preparing your boat* for winter.

If your boat is hauled out for winter storage, here are some suggestions from Chubb Recreational Marine. While each vessel, its equipment, and its environment vary, this guide offers general guidance that you can use to help ensure a safe and reliable boating season next year.



BEFORE THE HAULOUT

Preparing for the haulout process is a critical step in protecting your vessel's *long-term value*, and provides an excellent opportunity to inspect the hull and running gear while the boat is safely transitioned to dry storage.

Outside the Boat

When the boat is afloat and tied to the dock, it's easier to get on and off than it will be when it's hauled out. So, now is the time to do as much of the heavy lifting as possible.

SAILS AND RIGGING

If you have a sailboat, now is the time to remove the sails, fold them neatly on the dock and put them in their sailbags. It's a good time to give the sails a careful inspection to identify any repairs or cleaning that may need to be done by your sailmaker during the winter. Tie messenger lines to your halyards and remove them so they won't be damaged by winter weather. Even if the mast will be removed for the winter, it's easier to pull the halyards out when the mast is vertical.

It's a good idea to take all your running rigging off the boat (don't forget to reeve messenger lines) so you can inspect it all, repair any frayed ends, or replace any chafed lines that you didn't repair during the season. Dacron running rigging can be cleaned by soaking in a mild detergent solution, then soaking in fresh rinse water and drying before stowing. Nylon mooring lines can be cleaned the same way, which will rid them of abrasive salt residue and extend their service life. Check with the manufacturer before cleaning high-tech cordage like Spectra, etc.

UNSTEPPING THE MAST

Even if you don't normally unstep the mast for winter storage, it's a good idea to do it every few years so you or your rigger can inspect all the rigging and fittings, especially the ones at the masthead. If the mast will be removed this year, straighten the cotter pins in the turnbuckles so that they can be quickly removed when the yard sets up the crane to lift the mast.

Remove the mainsheet, and then remove the boom and lay it on the coachroof or side deck. Pad the boom so

it won't scratch the boat. Keep track of any shims that come out of the gooseneck, so that you can replace them in the spring.

Before you loosen any turnbuckles, measure the distances between the upper and lower halves of the turnbuckle bodies and write them all down. That way, you'll be able to set all the stays and shrouds at the same tension next spring, which could save a lot of time tuning the rig. Disconnect and tag the mast wiring, and remember to protect the connectors from the weather if they're on deck.

CHECK YOUR SHORE POWER

If your boat is equipped with AC shore power, turn off the circuit breaker on the dock first, and then disconnect the cord from the boat. Take a close look at the boat's shore power receptacle. If you see any sign of darkening of the plastic around one of the prongs, replace the connector. You don't need to buy a whole new receptacle fitting; just replace the internal parts.

If one of the prongs in the connector in the boat's receptacle is damaged, it's possible that the corresponding clip at the end of the cord is damaged too, and it may be time for a new shore power cord as well. That receptacle, where the cord plugs into the boat, is a very common source of fire on boats. Be sure your shore power connection is in like-new condition!

CHECK THE GAS SYSTEM

If your boat is equipped with a propane (LPG) or compressed natural gas (CNG) system, be sure the valves are turned off at the tanks. Take a close look at everything in the tank locker (tanks, regulator, pressure gauge, solenoid valve, wiring, etc.) to be sure all is properly secured and in good repair.

Be sure the vapor drain at the bottom of the locker is clear, and that every wire and hose that passes into the locker is properly sealed so any leaking gas can't get inside the boat.

Finally, since running water isn't always available in storage yards, give the boat a thorough washing before it's hauled out.

Inside the Boat

CHECKING FOR LEAKS

After you've washed the boat, go inside and look for deck leaks. Try to look at as much of the hull-to-deck joint as possible, and around all the windows, hatches, portlights, chainplates, and any other hull and deck penetrations. Make note of any leaks you find, keeping in mind that water might show up inside the boat in a different place than where it's getting in from the outside. Chasing leaks can involve quite a bit of detective work, but it's an important part of maintenance. Try to have any leaks repaired right away, especially if the boat will be stored outside for the winter.

GASOLINE ENGINES AND TANKS

If your boat has gasoline engines, you'll want your tanks filled to about 95%. Also, add a fuel stabilizer and run some stabilized fuel through the engines.

Another suggestion is "fogging" a gasoline engine to coat its internal parts and protect against corrosion. Fogging oil is available at most marine stores and at engine parts stores. Remove the flame arrestor before running the engine. Read your engine's operating manual for more suggestions on protecting it during winter storage.

DIESEL ENGINES AND TANKS

Diesel fuel is more stable than gasoline with ethanol, but it still absorbs water, and water will do serious damage to injectors. It's a good idea to fill the tanks on a diesel-powered boat before hauling out. With full tanks, there's less internal air space and less tank surface to collect condensation. Add a dose of biocide to the tanks to prevent algae growth before you top them off. Running the engine out of fuel isn't necessary with a diesel engine, and it's difficult to purge the air out of some diesel engines to get them running in the spring.

WINTERIZING SYSTEMS

If you have harsh winter climates where you store your boat, its systems will need to be winterized. You can do a lot of these chores while the boat is in the water.

Close the seacocks (except for propulsion engine cooling water intakes) and drain the strainers. Depending on the boat's layout, it may be necessary to remove hoses from generator and air conditioning pump cooling water intakes, and perhaps remove pump covers to drain all the water out. Pump out the toilet holding tank, rinse it, and pump it dry again. You may have to remove hoses from the toilet as well.

The domestic water system should be drained, but in some cases it's not possible to drain all the water out of hoses in hidden spaces, so it may be necessary to add some nontoxic anti-freeze to the water system.

Remove as much gear from the boat as you can, including electronics, lifejackets, binoculars, clothing, cushions, fishing gear, and anything else that could be damaged by moisture and cold weather, or that may be attractive to thieves.



BEFORE THE HAULOUT

PROTECT THE BATTERIES

If there's a separate set of house batteries, they can be removed for winter storage before the boat is delivered to the yard for haulout. The same applies to the generator starting battery, if there is one. The engine starting batteries can be removed at the yard's service dock, just prior to haulout. Batteries are heavy, so it's easier to get them ashore while the boat is afloat rather than trying to deal with them once the boat is on the hard.

Add a bit of baking soda and wash out the battery. Use lots of fresh water and a biodegradable cleaner that's safe to pump overboard, and then use a wet-dry vacuum to suck the remaining water out of all the interior spaces. You'll appreciate getting aboard a clean, fresh-smelling boat next spring!

Storing the batteries at home will extend their life, since cold weather will cause them to self-discharge more rapidly, and once they've spent more than a few weeks in a discharged state, they can't be trusted. When you take the batteries home, store them on a dry surface in a location that's not subject to freezing temperatures, and plan to trickle-charge them for a day or two once a month throughout the winter.

Don't forget to clean the terminals before returning them to the boat in the spring, and avoid placing them directly onto concrete.

CLEAN OUT, CLEAN UP

Remove as much gear from the boat as you can, including electronics, lifejackets, binoculars, clothing, cushions, fishing gear, and anything else that could be damaged by moisture and cold weather, or that may be attractive to thieves. Clean out galley cabinets and take home all food, spices, and condiments. Dishes, pots and pans, and glassware might benefit from a trip through the dishwasher at home.

AND HERE'S A HINT: the flame arrestors on gasoline engines need periodic cleaning. If they're a bit dirty, take them home and soak them in solvent or paint thinner, let them air dry, and then run them through the dishwasher on the bottom rack. They'll come out shiny and clean. You'll also want to cover the engine intakes with plastic bags when you take off the flame arrestors.

With the lockers empty and the batteries ashore, give all the stowage and bilge spaces a good cleaning.



DURING THE HAULOUT

It's important that you or someone who knows the boat is actually present when the yard picks the boat out of the water.

DURING THE HAULOUT

Everyone wants to get in a few more days of boating late in the season, so when the weather finally starts to turn, boatyards often get very busy hauling out and blocking boats. Sometimes it can get a bit rushed and careless. It's important that you or someone who knows the boat is actually present when the yard picks the boat out of the water. If the yard staff know that the owner or a representative is watching, they may be more likely to handle her with care.

HAUL YOUR BOAT PROPERLY

If the yard isn't familiar with your boat, be sure to let the yard foreman or the lift operator know where it's safe to set the straps. Strap placement should be in accordance with manufacturer's recommendations to ensure sufficient structural strength and so that nothing on the bottom will be damaged. You probably won't be painting the bottom until spring, but you may want to have the bottom pressure-washed as soon as your boat is out of the water and while the slimy residue and marine growth on the bottom is still soft.

If you have a sailboat with a keelstepped mast, it's important to be ready for unstepping or removing the mast. Be sure to loosen the mast boot or partner cover. Remove any mast blocks or wedges and store them in a safe place. Also, cover the mast collar once the mast has been removed.

As mentioned earlier, it's advisable to remove the mast from a sailboat at least every few years, so everything can be inspected thoroughly. Additionally, with the mast out of the boat, there will be less windage and

surface area to collect ice during winter storms. If the mast is removed, and the rigging has to be removed before it goes into storage, be sure to tag every piece with its location. The wind vane and windspeed cups are fragile, so they should be unplugged and taken home for safekeeping. Be sure to cover the connectors to keep out moisture and spider nests!

CORRECT BLOCKING TECHNIQUES

It's very important that your boat is blocked properly on an improved ground surface. You should know ahead of time how the yard will block your boat, and you should insist that they use proper methods and equipment. The boat's keel should be supported by solid wood blocking or sturdy wood cribbing, and the hull should be stabilized with proper tripod jackstands.

Your boat should be blocked in a way that will allow any rainwater that may collect aboard to drain out through deck drains and scuppers. It should be supported by at least two jackstands on each side, and more than two may be needed depending on the length of the boat. Jackstands should be located where structural bulkheads meet the hull. Each leg of every jackstand should be supported by plywood or planking to keep the bases of the stands from sinking into the ground, especially if the yard surface is gravel. What may look like a solid surface in the fall could become soft during extended rainy periods. Each jackstand should be secured to the one on the opposite side of the hull by a safety chain that passes under the keel. Two very important things to remember about blocking your boat safely:

No cinder blocks! No oil drums!

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AFTER THE HAULOUT

Visit the yard every month or so to *check on your vessel*, or have a friend or service personnel check on your boat occasionally.

Outside the Boat

Once the boat is safely blocked in the yard, grab a pencil and a clipboard and walk around the boat's bottom. Make a note of anything that needs attention.

ANCHORS AND CANVAS

Remove canvas covers, deck and cockpit cushions, extra mooring lines, fenders, and anything else on deck that should go ashore for winter storage. If it's possible, pull out all the anchor rode so you can rinse the chain and rope with fresh water. If you plan to leave the rode in the anchor locker for the winter, be sure to let everything dry thoroughly, and be sure the locker is clean and dry before re-stowing it.

INSPECT THE BOTTOM

Check all thru-hull fittings and scrape inside their openings. You want to be sure the bronze is bright and smooth. If any thru-hulls are covered by grates, it may be necessary to remove them to get a good look. Pitting or a pink appearance can indicate corrosion problems. Be sure all seawater intakes are clear of obstructions.

THRU-HULLS AND ZINCS

Check all the thru-hulls above the waterline. If there are any plastic ones, shine a flashlight into them and look closely for cracks. White plastic thru-hulls can be deteriorated by sunlight, and they are under tension from the nuts tightened against the inside of the hull. Cracks are common and they can be a cause of sinking. Any questionable thru-hulls should be replaced with marine-grade bronze or fiber-reinforced plastic.

If there are sacrificial zinc anodes attached to the hull, they should be removed prior to painting next spring. The hull under the zincs can be painted but be sure not to paint the studs to which the zincs attach. Mask the studs before painting and be sure they are bright and clean before replacing the zincs. It's important that the studs and the zinc anodes have a good electrical connection. Install fresh zinc anodes if the old ones are half depleted.

There may also be zinc anodes attached to underwater metal parts, like prop shafts, prop nuts, trim tabs, rudders, struts, bow and stern thrusters, and outdrives. Those zincs should be removed, the surfaces to which they attach cleaned to bright, shiny metal, and the zincs replaced.

TRANSDUCERS AND RUNNING GEAR

Underwater transducers for depth sounders, fish finders, and knot meters should be inspected. The faces of depth transducers should be clean and free of marine growth. Knot meter paddle wheels should turn easily and smoothly. Transducer faces can usually receive a thin coat of bottom paint. Check with their manufacturers before painting.

Check propellers for damage and straightness. A screwdriver, held tightly against the hull or against a strut, can be used as a reference. Check prop tips, and the leading and trailing edges of each blade. If you find variances of more than about 1/16 inch, have the yard remove the prop for service. Put a light coat of waterproof grease on the shaft taper and key when installing the serviced prop (hint: the narrow nut goes on first). When the clean, straight props are back on the shafts, check them again. If you still find too much variance, a prop shaft may be bent.

Check shaft bearings for wear. Try to move the shaft up and down. A small amount of movement is okay, but too much slack can mean the rubber bearing is worn out. If you're unsure, ask your yard to check them for you. Also, check the rudders by trying to move the bottom of the rudder from side to side, and up and down. Too much slack can indicate a worn bearing, shaft, or support collar.

Inspect swim step supports, trim tabs, thruster grates, and boarding ladders. If the ladder is telescoping and mounted under the swim step, be sure it deploys properly. Operate the trim tabs to be sure they have the proper range of motion.



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