

## THE ULTIMATE CHECKLIST FOR WINTERIZING YOUR BOAT

SUPPLIES YOU MAY NEED
Non-toxic Propylene Glycol antifreeze
Engine oil and filter (engine)
Fogging oil (engine)
Fuel stabilizer/biocide (engine)
Antifreeze Hydrometer or "antifreeze tester." (engine)
A cover - shrink wrap, tarps, a canvas cover, or indoor storage
Dehumidifying agent or dehumidifier/heater (cabin)
THE ENGINE AND GENERATOR
Rinse and flush the engine with freshwater to remove salt.
"Fog" the engine with a spray oil.
Flush antifreeze through the engine.
Change the oil and oil filter.
Change fuel filters.
Close through hulls on intakes and fill strainers with antifreeze.
INBOARD ENGINES
Check antifreeze level in the engine block with a tester and add anti-freeze as needed to maximize cold protection. Make sure you circulate the new mix before re-testing
Flush and fill the engine and lines with antifreeze.
OUTBOARDS
With the engine running, disconnect the fuel line and run the engine until it stops. This empties all the fuel from the carburetor.
Change lower unit oil.
FUEL SYSTEMS
DIESEL FUEL
Add a biocide/stabilizer to the fuel tank
Fill the tank after you add the stabilizer
GASOLINE
Most gasoline outboards use a removable tank. This fuel should be disposed of properly or used for some other purpose so you start with a fresh tank in the spring. (I used to put my leftover dinghy

If you have an older boat with a gasoline inboard and permanent tank installed you can drain it, or add a stabilizer and fill it.
PLUMBING SYSTEMS
PRESSURE (FRESH) WATER
Flush all tanks and lines.
Add antifreeze to the water tank.
Run all fixtures until antifreeze runs out, starting with the fixtures farthest from the pump.
WATER HEATERS
Drain all water.
If there is a winterizing bypass, shut it off before winterizing the pressure water system so you don't have to fill the tank with expensive antifreeze.
Disconnect the electricity or turn off the breaker to prevent accidental startup in the spring while it's empty
HEADS AND TOILETS
Flush all toilets with fresh water
Pump out and rinse all holding tanks.
Using the water intake hose, flush the system through with antifreeze
REFRIGERATION
Flush all raw water lines with antifreeze
THE BILGE
Pump or drain the bilge into a proper receptacle.
Add antifreeze to cover exposed pumps or through hulls
Run the pump briefly fill it with antifreeze.
BATTERIES
LEAD-ACID CONTRACTOR C
For wet cells, top up all cells as per manufacturer's instructions (usually with distilled water).
Fully charge all batteries.
Disconnect electrical connections from the boat.
If practical for smaller batteries, remove them and store indoors with a trickle charger.
LITHIUM (LIFEPO~4~)
Charge/Discharge to 50% state of charge or manufacturer's recommended storage voltage.
Disconnect all connections from the boat.
AIR CONDITIONING

Flush and fill raw water lines with antifreeze.
WATER MAKER
Pickle membrane with preservative as per manufacturer's instructions.
Flush raw water intake systems with antifreeze.
Replace or remove all filters.
COVERING, VENTILATION AND MOISTURE
BOAT COVERS
Canvas Covers. Expensive up front, but reusable from season to season and the best environmentally and for the boat.
Shrink wrapping. An annual expense that you may want to leave to the pros to do. Should be recycled in the spring.
Tarps and improvised materials. Smaller boats can be covered with tarps and other inexpensive materials, but they are prone to blowing off and coming loose. Tarps are difficult to secure on wetstored boats since you can't get lines under the hull easily.
VENTILATION AND MOISTURE
Make sure any boat covers have leak-proof ventilation and allow airflow.
Open all cabinets and storage areas, empty lockers where airflow is restricted.
Remove mildew prone items such as towels and clothing for the season and store off the boat.
Consider chemical desiccants, a fan, a winter cabin heater and/or a dehumidifier.
If security permits, leave some windows or a hatch open under the cover
SAILS
Rinse and sails with fresh water and allow to dry prior to flaking.
Take any sails in need of repairs to a sail loft.
Consider annual inspection, cleaning and winter storage with a sailmaker to extend sail life.
STORAGE
Store the boat in dry storage, in-water, trailered, or indoors
Check your boat now and then during winter time to inspect it