GUIDELINES FOR WINTER BOAT LAY-UP
by James M. Falk, Marine Recreation and Tourism Specialist, (302) 645-4346

As the recreational boating season in Delaware ends, boaters are faced with a number of options for laying up their boats. If icing conditions are not severe, vessels may be left in the water, but winterizing is still recommended. A marina or boatyard can haul, winterize, and store boats in a timely and proper fashion. However, if time allows, owners might want to tackle the winterizing themselves.

First, locate the owner’s manual—the best guide for laying up your boat and engine. Keep it handy and refer to it often. The following guidelines should also help. The more work performed in the fall and winter, the sooner the boat can be launched in the spring.

HAUL BOAT
☐ Disconnect propeller shaft at coupling where it joins engine tail shaft before hauling. Don’t reconnect until a day or two after boat is back in the water.
☐ Open sea cocks to let salt water drain out.
☐ Wash down hull and transom to remove traces of salt and exhaust vapors.
☐ Remove algae stains by spraying them with household bleach or diluted household chlorine.
☐ Check that struts, shafts, and underwater fittings are securely fastened and that none are bent or weak.

ENGINE
☐ Clean and lubricate moving parts (swivel, all steering linkages, throttle and shift linkages) with lightweight grease.
☐ Change oil (one of the best preventive maintenance tips) and install a new filter. Acid buildup in oil could damage engine parts.
☐ Fog engine with light oil by spraying oil into running engine until it stalls. This removes carbon deposits and protects against rust and corrosion.
☐ Pull spark plugs and squirt lubricating oil through each spark plug hole to prevent rust and corrosion buildup in cylinders.
☐ Drain fuel from carburetor; spray inside and outside with light oil or solvent. Clean fuel pump bowl and strainer. Change any in-line fuel filters.

Outboard
☐ Top off fuel tank (omit two-cycle oil) and add conditioner.
☐ Clean cooling system intake and flush system with fresh water. Run a small outboard in a barrel of clean fresh water or briefly hit the starter, if it has one, or turn over engine by hand a few times to get all water out of cooling system pump.
☐ Wash and wipe down motor; spray power head with corrosive inhibitor. Spray exterior with corrosive inhibitor or apply a thin film of engine oil.

Sterndrive
☐ Replace defective hoses and clamps.
☐ Inspect sterndrive transom boot and replace if needed.

PROPELLER
☐ Remove and inspect propeller. Clean and grease shaft. If propeller is nicked or seems “out of whack,” a qualified dealer may be able to recondition it.
☐ Check whether shaft seal has been damaged. It could let water into the lower gear case.

STEERING AND CONTROLS
☐ Cable steering: release tension from cables and inspect cables and pulleys.
☐ Hydraulic steering: examine hydraulic fluid for contamination; clean and lubricate cylinder rod and movable parts. Lubricate exposed parts of steering controls and relieve tension at tight bends. Heavily grease rod that extends from end of housed cable. Relieve loads on tilt/trim system.

FUEL TANK
☐ Top off fuel tanks to prevent condensation buildup.
☐ Add stabilizing agent to gas or diesel to keep it fresh and free of bacteria. During storage, gasoline slowly oxidizes, creating resin which clogs fuel systems and carburetors. Add bactericide to diesel tanks to prevent growth of filter-clogging bacteria.

BATTERY
☐ Disconnect cables. Clean top and terminals, coat post with grease, and remove battery from boat.
☐ Check electrolyte level. Add water if needed. If battery is low, give it a full charge before storing.
☐ Store in a cool (not freezing), dry, ventilated area.
☐ If possible, keep battery charged at a low rate while in storage. If not, test at least once a month with a hydrometer to check the charge of each cell.
ELECTRIC AND IGNITION SYSTEM

☐ Starter, generator, and alternator require little attention unless exposed to leaks. If exposed, cover with plastic bags; allow sufficient ventilation.

☐ Clean all electrical cables, spark plug wires, terminals, and switches and spray with water-displacing, penetrating lubricant.

☐ Check and lubricate starter drive. Replace brushes and clean commutator. Clean coil and distributor and spray with oil.

☐ Examine terminal blocks, fuse panels, circuit breaker panels, and switch; check terminal nuts and screws. Replace corroded parts and tighten loose connections. Clean dirty ones and spray with water-displacing, penetrating lubricant.

☐ Remove electronic equipment (e.g., depth sounders, radios). Clean outside and wrap to keep out dust. Store in a warm, dry place; mark connections with color-coded tape for easier reinstallation.

☐ Wrap large electrical equipment that cannot be removed with clean cloth or canvas to keep out dust; cloth won't cause condensation as plastic might.

COOLING SYSTEM

☐ Any engine run in salt water will benefit from being drained and flushed out with fresh water.

☐ Oil coolers should be either drained or topped off and filled with antifreeze.

☐ Check heat exchangers for deposits.

☐ Clean strainers and remove soft impellers from water pump.

☐ Replace strainers and filters in water system.

PLUMBING SYSTEM

☐ Drain water lines to and from head, galley, and shower (including sumps and drains).

☐ Leave drain plugs open so rain or melted snow can drain from cockpit and area below.

☐ Drain water tanks and flush if possible. Some people add baking soda and leave it in the tank over winter.

☐ Make sure hot-water tank is drained. Leave faucets and water valves open.

INTERIOR

☐ Wipe down interior paneling with lemon oil (or similar) to remove salt spray and restore natural oils.

☐ Wipe down interior metal parts.

☐ Remove canned and paper goods. Clean and wash counters, drawers, lockers, and cabinets to prevent mildew and fungus. Leave drawers open for circulation.

☐ Clean refrigerator/ice box and leave an open box of baking soda inside to keep it fresh. Rig door open.

☐ Remove portable gear that will collect moisture (cushions, drapes, interior carpet, if possible); don't jam things in lockers or bilge area. Sort and remove charts and navigation tools.

BILGE

☐ Clean bilge and unplug limber holes if clogged. Scrub with bilge cleaner and let soak for a day or so. Overhaul bilge pump if needed.

EXTERIOR

☐ Remove salt and dirt stains from cabin and deck surfaces.

☐ Touch up bare spots in paint and varnish to keep water from penetrating.

☐ Remove exterior carpeting (if possible).

☐ Clean metal fittings (including rails, light stanchions, and deck hardware) and coat with wax or penetrating oil to help protect plating or finish.

☐ Clean, bleach, and seal teak. Two-step teak cleaners do a good job.

☐ Wax fiberglass hull and deck to help fight snow, freezing rain, etc.

☐ Soak and wash rope lines in plain cold water (no soap or detergent). Coil rope and let air-dry. Demote worn rope to fendering lines.

☐ To protect navigation lights and exterior lights from corrosion and becoming “frozen into place,” disassemble and clean thoroughly. Grease, reassemble, and apply light, clear grease to lamp socket (won’t break circuit). Lightly smear petroleum jelly over lens gasket and rim of lens before replacing it. Replace a cracked or dried-out gasket.

FRAME AND COVER

☐ If canvas boat cover is used, take out of storage a week or so ahead of time and inspect for tears or mildew.

☐ If a boat cover is used, a frame and fitted cover is best.

☐ Ventilation is critical. While canvas is preferred, reinforced plastics can be effective if ends are left open for circulation. When securing a canvas cover, leave openings at bow and stern for ventilation inside.

☐ Use good strong line. Secure under boat; do not attach to bow rails. Broken lines and flapping canvas cause more damage than wind, snow, or ice.

GENERAL CHECKS

☐ Check fluid levels (engine, transmission, steering, trim tabs). A low level could mean trouble and should be checked out by a mechanic.

☐ Rust spots could indicate a leak; check machinery.

☐ Note oil spot concentrations, which could indicate a leak in an oil line.

☐ Check for loose hoses and clamps. Replace hoses starting to crack.

☐ Check for loose hardware and fastenings.

If you follow these tips, your boat and engine should survive winter conditions intact. Only minimal spring refitting should be needed before your boat can be on the water. Don't forget to keep the owner's manual nearby and contact a qualified dealer if unforeseen problems arise.

1/92:1K

REC

MAR 1 1993

NATIONAL MARINE LIBRARY
PELL LIBRARY BUILDING
MIDDLETOWN, CT 06457-2296