

# Lake Norman Sail and Power Squadron

## SPRING COMMISSIONING SUGGESTIONS

To ensure that your boat will give you many hours of trouble free enjoyment during the coming season the following maintenance and safety check list should be useful.

NOTE: Federal requirements and safety tips for recreational boaters are marked with (\*).

WARNING: Some repairs and adjustments should be performed only by qualified mechanics or technicians. If in doubt consult your owner's manual.

### ALL BOATS

- (\*) Check battery terminals, fluid levels and charge state (replace wing nuts with standard nuts and lock washers) make sure batteries are secured and covered.
- (\*) Check navigation and anchor lights and lenses. Clean or replace where necessary.
- (\*) Check horn or other sound producing device such as a whistle.
- Inventory your back up/repair equipment (bulbs, fuses, wrenches/tools, spare fuel filters, spare whistle, etc) Store in an accessible watertight container.
- Check all thru-hull fittings for leaks or corrosion. Make sure seacock handles turn easily. Consider wooden plugs tied to each thru-hull in event of hose or thru-hull failure.
- Locate and inspect all sacrificial anodes (zincs) and replace if more than 50% consumed.
- Check hose clamps and hoses. Extra hoses and clamps should be in your parts kit. Consider double clamping hoses.
- Sniff fuel compartment for fuel odors and address any issues immediately.
- Test all bilge pumps and automatic switches (both mechanical or electrical)
- Check In line raw water strainers for debris.
- Inspect all dock lines and replace worn and stiff lines.
- (\*) Inspect anchor(s), anchor lines and shackles and repair or replace as needed.
- (\*) Inspect Marine Sanitation Device (MSD).
- Inspect deck plates and o-ring seals. Clean and lubricate o-rings with plumbers grease to keep deck water out.

- Inspect fuel fill gasket. Replace if worn or damaged.
- Inspect fuel sending unit for corrosion. Replace if necessary.
- (\*) Test VHF radio and all electronics for proper operation.
- Inspect scuppers. Assure they are clear and not full of debris and that the rubber back-wash flappers are in working order.
- Check lifelines and replace or adjust where necessary.
- Check all canvas and covers. Check all support tubing and isinglass. Repair or replace where necessary. Make sure all snaps and tie downs are in place.
- Check stuffing box for leakage. Replace packing if necessary.
- (\*) Check stove and sinks. Make sure stove fuel supply is securely mounted and fittings are tight.
- Thoroughly check all steering and control cables. Replace, lubricate and adjust as necessary.
- (\*) Inspect all life jackets. Make sure enough are on board and of the correct size and type. Replace any that are torn. Consider attaching whistle to each life jacket. Check suspender type vests for proper operation. Check/replace CO2 cartridges on inflatable jackets.
- (\*) Check all fire extinguishers. Replace if outdated, corroded or showing low pressure.
- (\*) Check flares and other visual distress devices. Flares with expired dates should be retained if in good condition.
- (\*) Check state registration numbers on hull. Replace if necessary.
- (\*) Make sure state registration is up to date and on board and up-to-date sticker is on hull.
- (\*) Make sure documentation papers (if applicable) are current and on board.
- (\*) Check and upgrade first-aid kit.
- Check if insurance and proof of towing coverage is up to date and on board.
- Make sure up to date charts and cruising guides are on board.
- Get Vessel Safety Examination at earliest opportunity.

*Continue to next page for Gasoline Engine checklist...*

## **GASOLINE ENGINES**

- It is recommended not to test-run boats out of water, even with “muffs,” or resultant impeller damage may occur. If muff is used be sure to operate engine at idle speed.
- Check impellers for wear or damage. Impellers are typically rubber, and decay over time.
- Keep engines tuned up – Consider replacing spark plugs/plug wires/cap & rotor at the start of season, or at least inspect often to assure proper operation and fuel efficiency.
- (\*) Check for any engine oil leaks, such as a valve cover gasket or rear main seal. Look for oil in the bilge. If found correct problem immediately.
- Check condition of engine belts such as alternator, fresh water pumps, etc. Include spare belt(s) in your repair kit.
- Inspect fuel/water separator for contamination. Re-inspect after using the first tank of fuel of the season.
- Change fuel filters/in-line filters at least annually or more often depending on use.
- Most fuel pumps have a glass bowl. Check the glass bowl for evidence of fuel. If fuel exists in the bowl, the fuel pump is malfunctioning.
- (\*) Check back flame arrestor. Dirty arrestors should be cleaned.
- (\*) Make sure engine compartment ventilation system is working correctly with air being discharged through the vents.

## **INBOARD/OUTBOARD (STERN DRIVE OR OUTDRIVE) UNITS**

- Lubricate lower unit.
- Inspect power trim/tilt mechanism.
- Replace sacrificial anodes (zincs) if more than 50% consumed.
- Check propeller(s) for nicks or dents. Replace if found.
- Always check the condition of rubber boots on a stern drive before putting in each season, and whenever the boat is taken out of water. If dry rotted, cracked, or split, have repaired before putting in the water.
- On stern drives, remove the screw in the lower unit to check for water or other contaminants. If oil is milky, water has entered the outdrive. Correct problem immediately. Change oil.

## **DIESEL ENGINES**

### *At engine start up:*

- Check fuel and oil levels.
- Check cooling water drain levels.
- Check for abnormal sounds when cranking motor.
- Do not run a diesel starter motor for more than 15 seconds continuously.
- Diesel engines should warm-up 2 to 3 minutes in neutral first.
- Bleed the fuel system if the engine does not start and fuel is reaching engine. Learn how to bleed your system in event you run out of fuel and/or air enters system.
- Drain fuel tank every 300 hours to avoid contamination.

### *Storage over winter:*

- Change lube oil and filter.
- Run engine once a month if possible.
- Cover the exhaust silencer, air intake silencer, etc. with a PVC pipe to prevent humid air from entering your engine.
- Remove batteries and charge before storage.

*Continue to next page for Outboard Engine checklist...*

## **OUTBOARD ENGINES**

- Locate, inspect and replace sacrificial anodes (zincs) if more than 50% consumed.
- Clean cooling water passages.
- Inspect cowling clamp.
- Inspect fuel filter, replace if necessary.
- Inspect fuel system for leaks.
- Change gear oil.
- Change engine oil.
- Replace oil filter.
- Inspect power trim/tilt mechanism.
- Grease at recommended grease points – see owners manual.
- Check propeller(s) for dents and nicks. Replace or repair if found.
- Inspect and lubricate shift cable and adjust if necessary.
- Inspect and lubricate throttle cable and adjust if necessary.
- Inspect water pump/water flow indicator.
- Inspect, clean, adjust or replace spark plugs.

*Continue to next page for Trailers checklist...*

## TRAILERS

- Inspect winch and winch strap. Replace as needed.
- Inspect all “hold-down” or restraining straps. Replace as needed.
- Inspect all bolts and u-bolts.
- Inspect leaf springs. Replace if broken or deteriorated.
- Inspect chassis for wear or fracture.
- Check brake system for fluid levels and leaks. Recommend flushing with new brake fluid annually.
- Check tire pressure and tire condition. Replace aged tires.
- Check all trailer wiring and lights. Replace as needed.
- Check trailer bearings, grease or oil levels. Jack up trailer and check for side play and bearing noise.
- Check brake shoes, pads and rotors.
- Inspect trailer bunk carpet or rollers. Replace if worn or rollers don't roll.
- Add trailer tire spare if not already installed.
- Based on manufacturer specifications put together an emergency roadside kit with spare bearings, races, seals and caps. (These items may not be available should a breakdown occur.)
- Check safety chains and coupler for proper operation.
- Make sure registration and insurance is current and with the towing vehicle.
- Make sure current registration sticker is on license plate.

*Continue to next page for Sailboat specific items checklist...*

