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A. THE MOTOR:

1. Pre-start Checks.

Prior to operating the motorboat, you must ensure you have:

- Valid Pleasure Craft Operator's Card (PCOC):** the boat operator must have the valid PCOC in their possession at all times.
- Charged Mobile Phone and Radio:** fully charge the phone and check the radio battery level before launching the motorboat.
- PFD:** boat operator and each person on board must wear an approved PFD at all times when on the water in ORC motor boats

- d. **Safety Equipment**—the following equipment must be in the boat at all times while it is in operation on the water:
- i. **9 x Lifejackets/PFDs:** (kept in a hockey bag) One Canadian-approved lifejacket or PFD for each person on board an 8-person rowing shell and the coxswain.
 - ii. **Blue Safety Box:** with a copy of the ORC Emergency Action Plan (EAP), thermal blankets and basic first aid kit.
 - iii. **Buoyant Heaving Line:** A buoyant heaving line at least 15 m (49 ft 2 in) long.
 - iv. **Bailer or Pump:** A manual water bailer or bilge pump.
 - v. **Signalling Device:** A sound-signalling device (like a Fox 40, pealess whistle).
 - vi. **Flashlight/Flares:** A watertight waterproof flashlight. (Note: If your boat has an outboard motor, you also need 3 Canadian-approved flares unless you only operate in daylight and are within 1 nautical mile (1.85 km) of shore).
 - vii. **Propulsion or anchor:** Either a paddle (manual propelling device) OR an anchor with at least 15 m of rope, cable, or chain.
 - viii. **Navigation lights:** Required if operated between sunset and sunrise or in restricted visibility (like fog or very heavy rain).
 - ix. **Reboarding device:** a PVC pipe or pool ladder.
- e. **Gas Tank:** Verify the tank level to ensure there is enough gas for your outing. Connect the motor to the tank by gently guiding the fuel line connector and attaching it to the tank. Check to ensure the fuel line is securely connected to both the tank and the motor.
- f. **Hull:** inspect the hull and ensure there are no holes. Ensure the boat is correctly seated on the Boat Cart and protected with rubber bumpers at the bow to prevent damage.
- g. **Boat Plug.** To insert:
- i. If the plug is threaded, ensure it is loosened by spinning the handle counter-clockwise so the rubber stopper is completely loose and narrow.
 - ii. Push it in: Working from inside the boat, insert the plug into the drain hole at the bottom of the transom (at the back/stern of the boat). You should feel it seat flush into the flange or bushing.
 - iii. Expand and lock: Twist the handle clockwise until it offers resistance (this expands the rubber), then push the lever over to lock it into place.
 - iv. Handle Orientation: Always lock the handle downward against the transom.

- v. Give it a tug: Gently pull on the handle. If it is completely seated against the aluminium drain hole and stays firmly in place, it is inserted correctly.

To remove the plug: working from inside the boat, lift the handle and untwist the plug, turning it counterclockwise to loosen it, and slide it out of the drain hole. Remove the plug to drain water, only once the boat has been put on a cart and is being pulled up the boat ramp to be taken back to the boathouse. Ensure the boat plug is left on the floor of the boat, near the drain hole, so it is easy to find for the next outing.

Video example:

<https://www.tiktok.com/@waynetheboatguy/video/7277932222231973151>

- 2. Manually Raising and Lowering the Motor.** On the Mercury and Yamaha manual-tilt outboards, the tilt lock lever is typically located on the port side (left side when facing the front of the boat) of the engine's transom mounting or swivel bracket, just below the main motor housing. This lever controls the locking mechanism for tilting the motor up or down.

Video Example: <https://www.youtube.com/watch?v=vaTAdaJ6MzU>

a. Lowering the Motor:

- i. **Never let the motor drop freely.** The weight of the motor can cause it to slam into the bracket or boat, causing damage to cast metal parts. Always control the descent with your hands.
- ii. **Lift slightly:** Lift the engine slightly by hand to remove the weight pressing down on the support bracket.
- iii. **Disengage lock:** Flip the mechanical tilt-lock up/away into the stowed position.
- iv. **Guide it down:** Slowly guide the motor down to its resting or operating position. Ensure the motor is fully lowered into the water.

b. Raising the Motor:

- i. **Engage forward gear:** Ensure the engine is off and place your tiller handle/shift into Forward gear. This locks the motor and prevents it from kicking up unexpectedly while you are lifting it.
- ii. **Release tilt lock:** Locate the tilt lock lever or release mechanism near the motor mount.
- iii. **Lift and lock:** Firmly grasp the top cowl or the back of the engine and lift the motor until it locks into the fully upright position.

- iv. **Engage support bracket:** lower the motor slightly to engage the built-in mechanical transom support or trailering lock to take the weight off the manual locking mechanism.

3. Starting and Operating Procedures. To operate the outboard motor safely and efficiently, follow these steps:

- a. **Familiarization:** Look the outboard motor over and ensure there are no visible problems or damage. Know how many stop switches there are and where they are located on the motor (the red safety lanyard/cord, and up to 2 additional ones located on the tiller handle or on the motor).
- b. **Red Safety Lanyard** (also called Kill Switch Cord): Attach the red emergency stop switch lanyard to your wrist or PFD/life jacket. The motor will not start without it.
- c. **Neutral gear:** Ensure the tiller handle is securely locked in the Neutral position. The neutral safety switch will block the engine from cranking if it's in gear.
- d. **Fuel Supply:** Open the vent screw on top of your portable fuel tank. Squeeze the in-line primer bulb until it feels firm, indicating the fuel system is pressurized.
- e. **Choke/Fast Idle:** For a cold engine, pull out the choke or set the tiller throttle to the "Fast Idle" or "Start" position.
- f. **Crank engine:** Pull the recoil starter smoothly and firmly. Push the choke back in (if equipped) once the engine idles smoothly.
If using a boat with a Yamaha motor, two (of the three) are electric start models. For these two motors: push the small, round, black rubber covered "Start" button.
- g. **Warm-Up:** If the engine is cold started, let it idle for a few minutes before pushing the choke in or dropping the idle speed. This allows the oil to circulate and prevents the motor from stalling.

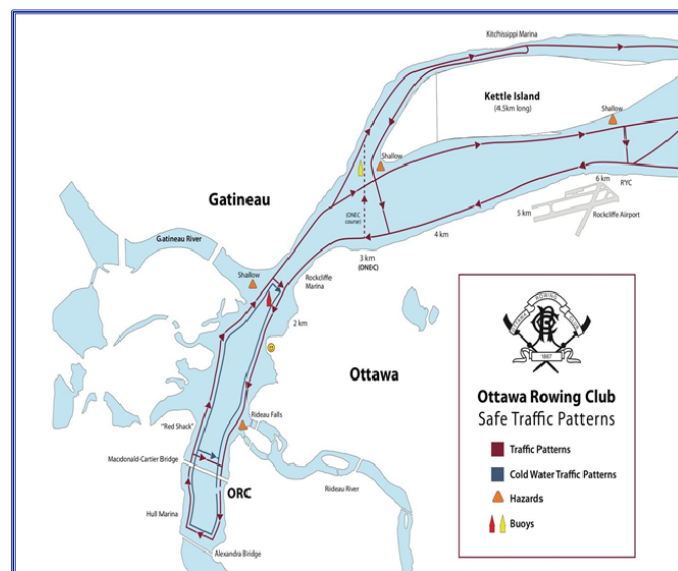
4. Troubleshooting Starting Problems. If the motor won't turn over or start, follow these immediate steps:

- a. **Check the safety gear:** Pop the red safety lanyard off and snap it back on to ensure it is seated correctly in the motor.
- b. **Shift to Neutral:** Wiggle the gear shift lever to make sure the neutral safety switch is fully engaged.
- c. **Battery and connections:** For electric start models, clean the battery terminals and verify the battery is fully charged. Check the main engine fuse.

- d. **Fuel flow issues:** Ensure the fuel tank vent is open and there are no kinks in the fuel line. If the primer bulb does not get hard, the fuel pump or line may have an air leak.
- 5. **Troubleshooting Running Problems.** If the motor runs poorly, stalls out, or lacks power on the water:
 - a. **Check the gas tank:** ensure there is sufficient gas in the tank for the fuel line to be pressurized.
 - b. **Check for engine Obstructions:** Put the engine in neutral, carefully tilt it up, and inspect the propeller for tangled fishing line, weeds, or rope that could be causing drag and stalling the engine.
 - c. **Stalling out:** If the motor stalls when you push the choke in, the carburetor jets may be clogged with bad/old fuel. You may need to clean or rebuild the carburetor.
 - d. **Bogging under load:** If it idles fine but bogs down or refuses to throttle up when accelerating, it is likely starving for fuel.
 - e. **Check for a clogged in-line fuel filter** or restricted fuel lines.
 - f. **Water Contamination:** Old fuel or ethanol separation can introduce water into your combustion system. Drain the fuel filter and consider using a marine fuel stabilizer.

B. ROUTES AND NAVIGATION HAZARDS

- a. **Map:** Showing Routes with Rowing Traffic Patterns and Safe Crossing Points



b. **Routes:**

- i. **Bridge Loop** (2 km): from the ORC dock, head upriver (toward Parliament Hill); turn before the Alexandra Bridge, and cross the river perpendicularly (taking the shortest route toward the Québec Shore), then head downriver toward the Macdonald-Cartier Bridge, pass under the Macdonald-Cartier Bridge and turn to cross the river perpendicularly (taking the shortest route toward the Ontario shore), head upriver back to the ORC main dock.
- ii. **Gatineau (River) Loop** (6 km): from the ORC dock, head upriver (toward Parliament Hill); turn before the Alexandra Bridge, and cross the river perpendicularly (taking the shortest route toward the Québec Shore), then head downriver toward the Macdonald-Cartier Bridge, pass under the Macdonald-Cartier Bridge, continue downriver and stop before the mouth of the Gatineau River, cross the river perpendicularly (taking the shortest route toward the Ontario shore), head upriver back to the ORC main dock.
- iii. **Tip of Kettle (Island) Loop** (10 km): from the ORC dock, head upriver (toward Parliament Hill); turn before the Alexandra Bridge, and cross the river perpendicularly (taking the shortest route toward the Québec Shore), then head downriver toward the Macdonald-Cartier Bridge, pass under the Macdonald-Cartier Bridge, continue downriver and stop before the mouth of the Gatineau River, check for boat traffic and cross the mouth of the Gatineau River with caution, continue downriver to the tip of Kettle Island, cross the river perpendicularly (taking the shortest route toward the Ontario shore), head upriver back to the ORC main dock.
- iv. **Airport Loop** (14 km): from the ORC dock, head upriver (toward Parliament Hill); turn before the Alexandra Bridge, and cross the river perpendicularly (taking the shortest route toward the Québec Shore), then head downriver toward the Macdonald-Cartier Bridge, pass under the Macdonald-Cartier Bridge, continue downriver and stop before the mouth of the Gatineau River, check for boat traffic and cross the mouth of the Gatineau River with caution, continue downriver to a point perpendicular with the Rockcliffe Airport, cross the river perpendicularly (taking the shortest route toward the Ontario shore), head upriver back to the ORC main dock.

- c. **Normal Club Program Session Patterns:** Warm-ups are done between the Alexandra and Macdonald-Cartier bridges, then technical/drill work is completed while on the Québec side of the river and power/pyramids are practiced on the way back following the traffic pattern along the Ontario side.
- d. **Normal stopping places** are: 1) on the Ontario side before the Alexandra Bridge, 2) after the Macdonald-Cartier Bridge, 3) before the Gatineau River, 4) at the tip of Kettle Island, 5) near Kettle Island, across from the Rockcliffe Airport, and 6) just past ONEC before the Rockcliffe Marina—note: **boats should not stop while in front of marinas or in front of Rideau Falls.**
- e. **Navigation Hazards:**
 - i. Floating and partially submerged debris, including logs and rope
 - ii. Marinas and Yacht Clubs: Marina de Hull, Gatineau Marina; Rockcliffe Marina; Rockcliffe Yacht Club; and NCC Riverhouse
 - iii. Bridge piers, navigation buoys and buoy chains
 - iv. Other river traffic, including a wide variety of vessels, like the Paula D; Ottawa River Queen; and LadyDive (Amphibibus); sailboats; cabin cruisers; motorboats; Jet Skis; kayaks; canoes; and paddle boards...
 - v. Shallow water areas and sand bars: small island on the Québec side (across from 24 Sussex); at the mouth of the Gatineau River; eastern shore of the Gatineau River; area beyond the Alonzo-Wright bridge on the Gatineau River; tip and Ontario facing shore of Kettle Island, and the area close to the shoreline in Governor Bay (the bay just before Rideau Falls heading back toward ORC).
 - vi. Rideau Falls
- f. **No Wake:** You must be aware of the wake created by your boat and minimize its effects on the crews around you.
- g. **Emergencies:** In the event of an emergency, the motorboat operator must be prepared to respond. If they must deviate from the normal traffic pattern, they must communicate, ideally by megaphone or over the radio, to let the other boat operators and all crews know they are no longer following the traffic pattern. When a rower in the water cannot get back into their shell and they can swim, boat operators should turn off the motor and let the rower swim to the motorboat. They should assist a rower by hanging the ladder near the bow and counterbalancing when the rower climbs in, as the boats are unstable. ORC can arrange specialized safety training for boat operators wanting to learn more about on-water response to emergencies.