

## **Before Starting the Engine:**

1. Check the marine weather and review the planned route with the crew.
2. Power panel: Green breakers ON; Yellow breakers ON as needed; Red breakers OFF; Engine Room Lights ON. Note: beeping alarm will sound when Engine Controls breaker is turned ON, silence the alarm by depressing the button at the throttle control for two seconds.
3. Staterooms and Head: close all hatches and portholes, secure all loose gear.
4. Salon, Galley, Pilothouse, Cockpit, Fore Deck: secure all loose gear.
5. Dinghy: secure, locking pins in place, fuel vent closed, key stowed, davit breaker OFF.
6. Kayaks: secure in their cradles, stow the paddles in the cockpit lazarette.
7. Helm: stow the sun covers in the map table drawer.
8. Open blinds and curtains for 360-degree visibility.
9. Secure upper deck furniture. Secure BBQ grill cover.
10. Disconnect shore power; stow cord(s) in cockpit lazarette.
11. Open the pilothouse floor hatch to gain access to the Engine Room. Caution the crew to be mindful of the open hatch. Conduct a visual check under and around the engine looking for any signs of abnormal fluid spotting. Confirm all equipment / gear / bins are secure.
12. Check oil and coolant levels in engine and generator
13. Confirm seacocks for the engine and genset are open and seawater strainers are clear.
14. Confirm fuel strainer bowels have clean fuel and no accumulation of water. Confirm vacuum gauge max indication needle is below 5". Reset needle to zero.
15. Secure Engine Room hatch, turn OFF the Engine Room lights.

## **Starting the Engine:**

1. Close the salon door.
2. Ensure starter key is in place.
3. Ensure integrated throttle / shifter control is in the center detent position (neutral and idle speed).
4. The Cummins QSB diesel engine doesn't require any preheating.
5. Turn starter key to ON, wait for engine display to initialize, acknowledge startup message, select Home page.
6. To start: depress the Start Button and release when the engine 'catches', usually with just a couple seconds of cranking. If the engine does not start easily, stop and investigate, something is amiss.
7. Check oil pressure, typically 70-90 psi when engine is cold.
8. Confirm water is running from engine exhaust.
9. Check fuel tank levels, ensure you have sufficient fuel for the planned route.
10. Allow 2-3 minutes minimum to ensure a stable engine. Idle speed will stabilize at 600 RPM. You can increase the idle speed without engaging the transmission by depressing the button on the shifter control until the LED flashes, then slowly advance the throttle past the idle detent. Do not advance engine speed above 850 RPM until engine temp is above 110 degrees.
11. Keep salon door closed when engine is running to prevent diesel exhaust film from settling on interior furnishings.

## **Electronics:**

1. Chartplotter: If not already ON, press the red power button for a couple seconds, acknowledge start-up message, set brightness by momentarily pressing the power button and then adjusting the brightness with the rotary knob, then OK. Select the desired page format and range.
2. Scan all instruments to ensure all are operational and configured properly.
3. Radio: set volume and squelch, monitor channel 16.

# Quick Start Procedures – Osprey

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## Leaving the Dock:

1. Skipper and first mate, assess local wind and current, devise the departure plan and review with the crew.
2. Position the rudder appropriate for departure conditions. Prop walk is to starboard in reverse.
3. Assign an available crew member to manage a roving fender.
4. Enable the thrusters, tap momentarily to confirm operation. (Auto-off 5 minutes after no usage.)
5. Final check of conditions and traffic.
6. Untie and stow mooring lines. (Use buckle latch straps or stow in the transom locker.)
7. Close and latch the transom door.
8. Stow the fenders in the cockpit lazarette.

## Underway:

1. Helmsperson "on watch" at all times. Be alert for logs or debris in water, it's out there with surprising regularity. Monitor the engine oil pressure and temperature, regularly validate your position and maintain awareness of water depth.
2. Keep RPMs under 950 until engine warms to 140 degrees and below 1200 RPM until 175 degrees.
3. Always keep effects of your wake in mind.
4. Two cruising ranges:
  - a. Econo cruise: 6.5-8.5 kts @ 1000-1400 RPM (~1.0-2.1 gph)
  - b. High Speed cruise: 9.5-11.5 kts @ 1800-2200 RPM (~4.9-8.7 gph)
5. Reminders:
  - a. Sustained cruising above 2400 RPM is not allowed
  - b. Once every other cruise day, run at High Cruise speeds for at least 15 minutes
  - c. "Normal" readings: Engine temp: 175-195 F; Oil pressure: 30-50 psi

## Approaching Dock:

1. Put fenders on appropriate side, port side tie is easiest with transom door access to the swim step. (Whenever possible, place fenders on both sides for protection from an adjacent vessel with non-dock side fenders raised up high).
2. Attach Bow line to cleat and run line OUTSIDE of stanchions and OUTSIDE of fender lines toward amidships; blouse the line over the rail for someone on the dock to easily grab it.
3. Enable the thrusters, tap momentarily to confirm operation.
4. Engine should be dead slow (Idle), thrusters ON.
5. Mate ready to step off swim step (No leaping across water to dock!) and secure Stern first (most circumstances), then Bow. In heavier crosswind conditions, best to secure mid-line first.

## Upon Arrival at Dock in Marina:

1. Secure all lines: Stern, Bow and Fwd / Aft Spring lines as a minimum.
2. If bow-in, be sure anchor is not protruding over dock walkway.
3. Press the STOP button to kill the engine, THEN Engine key to OFF.
4. Turn Off unnecessary systems at the circuit breaker panels, replace sunscreen covers on the electronics.
5. Once shore power is connected, make certain there is 110 AC voltage on the panel. (See Electrical section of Owner's Notes for details.)

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## Typing up to a Mooring Buoy:

1. Skipper at the helm, 1<sup>st</sup> Mate on starboard side of cockpit with boathook and two mooring lines.
2. Mate: secure one end of dock line to stern cleat.
3. Skipper: Position the vessel with mooring ball adjacent to the starboard side of the cockpit, stern into the prevailing wind.
4. Mate: reach over the side of the cockpit, catch the buoy ring with boathook and thread bitter end of line twice thru the ring resulting is a single loop around the ring (single loop is best, it resists wandering but still allows slippage if wind / wave conditions dictate weathervaning of the bow).
5. Mate places boat hook in cockpit, releases line from stern cleat and holds both ends of dock line while walking up the side of vessel to the bow. Skipper maneuvers bow close to buoy while monitoring the mate's movement along the side of the ship.
6. With buoy close to bow, secure one end of line to each front bow cleat. This allows for "quick release" when you're ready to cruise: Simply release one end of line from bow cleat and pull through the buoy ring and you're free to go.
7. Secure 2<sup>nd</sup> line as a safety if mooring overnight, either as a part of the above steps or after securing the primary line at the bow cleats. The procedure is to use a dock line with an eyelet. Feed the eyelet partially thru the mooring ball ring, then feed the bitter end of the line thru the eyelet and pull loosely taught. Now tied off the bitter end to the windlass cleat leaving plenty of slack so that the primary line does all the work.

## Anchoring:

1. Turn ON Windlass power at the power panel. Release the safety tether that secures anchor. Bring the bucket from the lazarette that has the snubber line and washdown hose.
2. Anchor is lowered with foot switches on the fore deck or from remote controls at the helm while boat is backed up slowly away from anchor. Be careful that anchor doesn't swing wildly and hit the bow. Better technique is to lower the anchor over the roller by hand while feeding out a short burst of anchor rode.
3. Mate at bow to monitor length of chain going out and to troubleshoot if it gets tangled. (Anchor rode is marked at every 25 ft increment with an 18" piece of nylon braided line woven into the chain. And at the 100 ft and 200 ft marks, there is a distinct double segment of nylon line woven into the chain.
4. The working rode is all chain, 300 ft and then followed by 25 ft triple braid nylon rode that is attached to the ship in the anchor locker. The nylon rode segment has a specific purpose, it would allow the skipper to fully deploy the chain and then cut it loose if emergency conditions warrant. Remember, anchor and chain is an expensive investment, cut it loose only in an emergency (vessel or crew is in immediate danger) and if possible, attach a fender to the bitter end for future recovery of the anchor. We hope you never encounter a situation that requires you to take this action.
5. When desired chain length is out, stop windlass. Target scope of at least 4:1 at high tide.
6. Skipper to reverse the engine at idle speed to test the set of the anchor.
7. Attach Snubber line to anchor chain: Secure snubber line to windlass bow cleat. Run out enough rode to form loop in chain so anchor rode tension is transferred to snubber line.
8. Turn OFF Windlass power at power panel.
9. Press the STOP button to kill the engine, THEN Engine key to OFF.
10. Turn Off unnecessary systems at the circuit breaker panels, replace sunscreen covers on the electronics, canvas covers on Pilothouse windows as appropriate.
11. See "Tackle" section of Owner's Notes for instructions on hauling anchor and **saltwater washdown of the anchor rode.**

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## **Daily (Overnight) Checklist in Marina:**

1. AC Input ON for shore power.
2. Xantrex Charging controller: Charger ON – Be sure it is charging.
3. Turn Off unnecessary systems at the circuit breaker panels, replace sunscreen covers on the electronics, canvas covers on Pilothouse windows as appropriate.
4. Keep an eye on water tank gauge (adjacent to the helm) and holding tank gauge (in the head).
5. If during the last passage, you experienced a lot of salt spray onto the topsides of the boat, take the opportunity to wash down the salt residue if permitted by the harbor / marina.

## **Daily (Overnight) Checklist at Anchor or Mooring Line:**

1. Anchor light: ON during hours of darkness.
2. Turn off unnecessary electrical items.
3. Use inverter as needed and then disable to prevent unnecessary house battery drainage.
4. Keep an eye on water tank gauge and holding tank gauge.
5. If during the cruise day you were experiencing a lot of salt spray onto the topsides of the boat, take the opportunity to wash down the salt residue from the front windows using large quantities of fresh water (flush the salt away, don't rub).

## **First Thing Each Day:**

1. If at anchor, turn OFF anchor light.
2. Check Xantrex Charger control panel for battery reserve. Recharging is necessary when bar graph shows red segments, either with engine underway, shore power or genset power.
3. Check water tank level (gauge at the helm).
4. Check holding tank gauge (panel at the head vanity). Discontinue use and empty the tank if red light is ON
5. Check the gray water tank level (gauge at the helm), pump overboard if necessary.

## **Before Leaving Vessel:**

1. Power panel: Turn OFF unnecessary systems (Yellow circuit breakers).
2. Use blinds for theft deterrence and UV / heat protection.
3. Lock the pilothouse doors and the salon door.