

QUICK START PROCEDURES - OSPREY

Before Starting the Engine

1. **Crew Duties:** Agree and brief crew of their roles. (Captain, First Mate/NSO, Deck Crew)
2. **Weather Check:** Check the marine weather and review the planned route with the crew
3. **Power Panel:** **Green Breakers** ON; **Yellow Breakers** ON as needed; **Red Breakers** OFF. 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.
4. **Secure for Underway:** Make sure that hatches and portholes are closed in the staterooms and head. Secure all loose gear on deck, in salon/galley, and pilothouse.
5. **Dinghy:** Secure, locking pins in place, fuel vent closed.
6. **Kayaks:** secure in their cradles, stow the paddles in the lazarette on the stern.
7. **Secure Deck:** ensure furniture on upper deck is lashed down. BBQ/grill on stern is covered.
8. **Helm:** stow sun covers in the chart table drawer. Ready binoculars.
9. **Open Salon Blinds:** ensure a 360-degree view.
10. **Shore Power:** Disconnect shore power; stow cord(s) in stern lazarette.
11. **Engine Room:** Open pilothouse floor hatch to access engine room. Notify crew that hatches are open and can be a fall hazard.
 - **General Conditions:** Perform a visual inspection of areas around and under the engines, ensuring there's no abnormal fluids on the floor or unexpected smells.
 - **Equipment Check:** Confirm all equipment, gear, and bins are secure.
 - **Oil & Coolant Check:** Confirm oil and coolant levels in the main engine and generator.
 - **Seacocks:** Confirm seacocks are open and seawater strainers are clear.
 - **Fuel Strainer Bowls:** Confirm fuel strainer bowls have clean fuel and no water.
 - **Secure Engine Room Hatch:** Notify crew that hatch is closed. Turn off engine room lights.

Starting the Engine

1. **Salon Door:** Closed
2. **Throttle/Shifter:** Ensure lever is in center detent position (neutral and idle speed). *Note: The Cummins QSB diesel engine doesn't require any pre-heating.*
3. **Starter Key:** Insert into ignition, and turn fully clockwise. Release when the engine starts, typically with only a few seconds of cranking. If the engine does not start easily, stop and investigate.
4. **Check Oil Pressure:** typically 70-90 when engine is cold.
5. **Engine Exhaust:** Confirm that water is running from engine exhaust (starboard side, stern)
6. **Fuel:** Confirm there is adequate fuel for expected route.
7. **Engine RPM & Temperature:** Allow for 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 begins fast flashing. While continuing to depress the button, slowly advance the throttle forward past the idle detent. During this action, the LED should start a slow flash to indicate that the transmission remains in neutral. Do not advance engine speed above 850 RPM until engine temp is above 110 degrees.
8. **Salon Door:** Keep the salon door closed when the engine is running to prevent diesel exhaust and fumes from settling on interior furnishings.

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Electronics

1. **SIMRAD Chartplotter:** Turn the system ON by pressing the **power** key (top center). Accept terms and conditions screen. Select the desired screen using the **Menu** key (top right) and scroll to desired menu option using the rotary knob
2. **Instruments:** Scan all instruments to ensure all are operational and configured properly
3. **VHF Radio:** set volume and squelch, monitor channel 16

Leaving the Dock

1. **Departure Plan:** Skipper and NSO assess local winds, currents, agree on departure plan and brief crew.
2. **Rudder:** Position appropriate for departure conditions (*Note: Prop walk is to starboard in reverse*)
3. **Roving Fender:** Assign an available crew member to manage a roving fender.
4. **Thrusters:** Enable thrusters, tap to confirm operation. (*Note: Auto-off 5-minutes after no usage*)
5. **Traffic:** All clear port, starboard and direction of departure.
6. **Mooring Lines:** Untie, cast off and stow mooring lines.
7. **Salon and Transom Doors:** Close and latch the salon and transom doors.
8. **Fenders:** Stow the fenders inboard or in the stern stowage when underway.

Underway

Required: Helmsman “on watch” at all times. Unmonitored autopilot operation is not permitted. Preferably there is an additional crewmember in the pilothouse to serve as a “second set of eyes.”

1. **Initial cruise RPM:** Keep under 950 RPM until engine warms to 140 degrees, and below 1200 RPM until 175 degrees.
2. **En-Route Cruise Power Setting:** Two cruise ranges.
 - a. **Economy Cruise: 6.5 – 8.5 kts @ 1000-1400 RPM.** This results in 1 gph to 2 gph of fuel use.
 - b. **High Speed Cruise: 9.5 – 11.5 kts @ 1800-2200 RPM.** This results in 5 gph to 9 gph of fuel use.
(*Note: Sustained cruising above 2400 RPM is not allowed. Once every other cruise day, run at high cruise speed for at least 15 minutes to clear carbon build-up*)
3. **Temperature Pressure:** Engine Temp, 175-195 F; Oil Pressure, 30-50 PSI
4. **Debris/Water Hazards:** Continuously monitor for logs, crab pot float, or debris in water
5. **Position:** Validate your position **continuously** and maintain **constant awareness** of water depth ahead.
6. **Wake:** Always keep the impact of your wake in mind. Maintain slow speeds in anchorages and marinas.

Approaching Dock

1. **Docking/Arrival Plan:** Agree on a docking plan with First Mate and brief crew. Remember that you can call ahead to the marina either by VHF or telephone and request additional assistance on the dock.
2. **Fenders:** Deploy fenders on appropriate side, Assign fender “rover” if crew available. (*Note: Port tie is easiest with transom door access to the swim step. Whenever possible, place fenders on both side for protection from adjacent vessel with non-dock side fenders raised up high*)
3. **Bow cleat line:** Attach 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.
4. **Thrusters:** On and tap momentarily to confirm operation.
5. **Engine:** Dead slow and idle.
6. **Mate on Swimstep:** Ready to secure stern first (most circumstances) then bow. (*Note: No leaping across water to dock. In strong crosswinds, it may be best to secure mid-line first*).

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Upon Arrival at Dock in Marina

1. **Lines:** Secure all lines – stern, bow, forward and aft spring lines as a minimum
2. **Bow Clearance:** If bow in, be sure anchor is not protruding over dock walkway
3. **Engine Stop:** Press the STOP button to kill the engine. THEN engine key to OFF and remove.
4. **Breakers:** Turn OFF unnecessary systems at the circuit breaker panels, replace covers on electronics.
5. **Shore Power:** Once shore power is connected, make certain there is 110 AC voltage on the panel (See Electrical section of Owners Notes for details).

Daily (Overnight) Checklist in Marina

1. **AC Input:** ON for shore power
2. **Xantrex Charging Controller:** Charger ON – Be sure it is charging
3. **Systems and Circuit Breakers:** Turn OFF unnecessary systems at the circuit breaker panels
4. **Suncovers:** Replace covers on the electronics, canvas covers on Pilothouse windows as needed.
5. **Water Tank Gauge:** Monitor water tank gauge (adjacent to helm) and refilling drinking water as needed.
6. **Black-Water Tank:** Monitor black-water holding tank status indicator (adjacent to helm). We suggest to always pump out at a marina and never let the tank fill above the **AMBER** alert level.
7. **Salt Spray Wash-down:** If during the previous passage you experienced a lot of salt spray onto the deck and windows, use freshwater at the dock wash off the salt residue, if permitted by the marina.
8. **Security:** Lock hatches and doors.

Daily (Overnight) Checklist at Anchor or Mooring Ball

1. **Anchor Light:** ON during hours of darkness
2. **Electrical Systems:** Turn OFF unnecessary electrical systems
3. **Inverter:** Use inverter as needed then disable to prevent unnecessary house battery drainage
4. **Water Holding Tank:** Monitor water tank quantity and holding tank gauge. Drain graywater as needed.
5. **Wash Down:** If during the passage salt spray covered the windows, use fresh water to wash off the salt residue, making sure to flush away and not rub.

First Thing Each Day

1. **Anchor Light:** OFF
2. **Xantrex Charger Control Panel:** Check for battery reserve. (Note: Recharging is necessary when bar graph shows **red segments**. Consider charging with engine underway, shore power or genset power.)
3. **Water Tank Level:** Check levels at helm.
4. **Holding Tank Level:** Check gauge at helm. Discontinue use and empty the tank if **RED** light is on.
5. **Grey Water Level:** Check gauge at helm. Pump overboard as necessary

Before Leaving OSPREY

1. **Power Panel:** Turn OFF unnecessary system (**Yellow** circuit breakers)
2. **Blinds:** Down for theft deterrence and UV/heat protection
3. **Lock up:** Secure and lock the pilothouse doors, hatches, and salon door.

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Tying Up to a Mooring Buoy

1. **Crew In Position:** Skipper at the helm, First 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 in 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:** Place boathook in cockpit, release line from stern cleat and hold both ends of dock line while walking up the side of the vessel to the bow. Skipper maneuvers bow close to buoy while monitoring the mate's movement along the side of the vessel.
6. **Mate:** With buoy close to bow, secure one end of the line to each front bow cleat. This allows for "quick release" when you're ready to cruise: simply release one end of the line from the bow cleat and pull through buoy ring and you're free to depart.
7. **Mate:** Secure the 2nd line as a safety if mooring overnight, either as 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 tie off the bitter end to the windlass cleat, leaving plenty of slack so that the primary line does all the work.

Anchoring

1. **Windlass Power:** Turn ON at the power panel.
2. **Safety Tether:** This line secures the anchor. Release.
3. **Anchor Equipment:** Bring bucket from lazarette containing snubber line and washdown hose.
4. **Anchor:** Lower with foot switches on the foredeck or from remote controls at the helm while boat is back up slowly away from anchor. *(Note: Exercise care that anchor doesn't swing wildly and hit the bow. Best technique is to lower the anchor over the roller by hand while feeding out a burst of anchor rode.)*
5. **Anchor Chain/Rode:** Mate is at the bow, monitoring length of chain deployed and troubleshoot if it gets tangled. *(Note: anchor rode is marked at every 25 ft with an 18" piece of nylon braded 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.)*
6. **Windlass:** Stop when desired chain length is deployed. Targe a scope of at least 4-to-1 at high tide.
7. **Throttle:** Skipper reverses engine at idle speed to test the set of the anchor.
8. **Snubber Line:** 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.
9. **Windlass Power:** Turn OFF windlass power at power panel in pilothouse.
10. **Engine:** Press STOP button to kill the engine, THEN turn the engine key to OFF
11. **Systems/Circuit Breakers:** Turn OFF unnecessary systems at the circuit breaker panels, place sunscreen covers on electrics, canvas covers on Pilothouse windows as appropriate.
12. **EMERGENCY RELEASE (If vessel or crew in immediate danger):** Fully deploy anchor rode and cut the nylon braid at the end of the anchor rode. If possible, attach a fender to the bitter end for future recovery of the anchor. Note position for possible recovery. *(The working rode is all chain 300 ft and followed by a 100 ft section of triple braided nylon rode that is attached to the vessel in the anchor locker.)*

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EMERGENCY PROCEDURES

MAN OVERBOARD

- Shout “Man Overboard! Port/Starboard!” and make sure all crew hear the call.
- Stop the boat immediately.
- Use SIMRAD “Man Overboard” function to mark GPS location.
- Appoint someone as SPOTTER.
- Have the SPOTTER keep the victim in sight at all times and point to them continuously.
- Turn boat towards the victim.
- Throw flotation device and Lifesling when in reach.
- Approach victim VERY SLOWLY.
- Position the boat to retrieve the victim via the stern/swim step.
- Have two people assist the victim out of the water.
- Administer First-Aid, checking for signs of hypothermia.
- Contact Coast Guard on VHF 16 if further medical assistance is necessary.

SHIPBOARD FIRE

- Shout “FIRE, FIRE, FIRE!”
- If at dock, evacuate the vessel.
- Ensure everyone is wearing a lifejacket.
- Identify and suppress the source of the fire:
 - Electrical equipment – Turn off circuit breakers for affected systems.
 - Grill/Stove – turn off gas supply/circuit breakers
 - Engine room – shut down engine and/or generator
- Retrieve fire extinguishers.
- Pull pin and stand ~10 feet from fire source.
- Aim fire retardant at base of fire and sweep horizontally.
- Make emergency call on VHF 16 – location, nature of emergency and number of people aboard.
- When fire is extinguished, monitor to ensure it remains out (cold and black).
- If fire continues – have crew ready dingy for deployment.
- Abandon ship if necessary.

COLLISION/WATER INGRESS/SINKING

- Ensure everyone is wearing a lifejacket
- Turn and make safe passage towards nearest land
- Identify damage – it may be in multiple locations
- Ensure bilge pump is on and working
- Assess opportunity to minimize inflow of water. Use supplied bungs or rags to stem flow of water.
- Make emergency call on VHF 16 – giving GPS location, nature of emergency and persons on board.
- Have somebody ready the dingy for deployment,
- Abandon ship if necessary.

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SAFETY ABOARD

1. **LIFEJACKETS** – All crew and passengers ALWAYS wear lifejackets when underway – even on a sunny day, situation can arise rapidly when a lifejacket is a lifesaver.
2. **LIFESLING** – A Lifesling is located on the railing at the rear deck. Make sure everyone knows how to use it in the case of a person overboard.
3. **ASSIGN A SKIPPER** – Assign ONE individual as the Skipper each day, who is ultimately responsible for the safety of the boat and all its occupants.
4. **BRIEF THE CREW** – Before starting out each day, the Skipper will brief all member of the crew on the plan for the day, the route, the weather and their individual responsibilities.
5. **TWO PEOPLE ON THE BRIDGE** – When underway, assign TWO people to be on the bridge at all times – one helming and operating the boat, and the other as a “second pair of eyes” watching for hazards and continuously monitoring location.
6. **FIVE SECOND DRILL** – Don’t rely exclusively on the chart plotter. Make sure the person at the helm can ALWAYS point to the location of the boat on a chart within five seconds.
7. **ONE HAND FOR YOURSELF, ONE FOR THE SHIP** – When outside on deck while underway, always hold a railing with one hand and the other for your task.
8. **NEVER USE THE SIDE DECK WHILE UNDERWAY** – Osprey’s side deck (from behind the wheelhouse) is narrow and unprotected and should NEVER be used while underway.
9. **TAKE IT SLOW** – One great thing about a boat is that if in doubt, you can slowdown or stop. Take your time and NEVER be in a hurry, as that’s when accidents happen.
10. **KNOW THE SAFETY GEAR** – Make sure everybody aboard knows where the fire extinguishers and safety equipment is located (See Appendix B for listing).