

Before Starting the Engines:

1. Fuel / Water: confirm fuel level is sufficient for the intended float plan. Top off water if needed.
2. Power panel: Green breakers ON; Yellow breakers ON as needed; Red breakers OFF; Engine Room Lights ON.
3. Weather: check the marine weather and review the planned route with the crew.
4. Cabins: go below, close all hatches and portholes in staterooms and heads. Secure all loose gear.
5. Salon, Galley, Pilothouse, Fore Deck, Sun deck: secure / stow all loose gear.
6. Lower Helm: stow sun covers. Turn ON the four electronics circuit breakers. Initialize the chartplotter to the desired app (lower plotter is the master so do it first). Start the iPad, confirm Wi-Fi connection, launch the Navionics app if desired. Set VHF volume and squelch, monitor ch 16.
7. Windshield and Pilothouse Door Screens: if desired, remove the sunscreens, fold vertically and stow in the lazarette on top of the stbd fuel tank.
8. Flybridge: open aft / side windows as appropriate, remove the bench seating covers as appropriate and stow in the bench seating when fully dry, slide upper helm canvas forward ahead of the helm.
9. Upper Helm: stow the navigation equipment sun covers. Initialize the chartplotter to the desired app. Set VHF volume and squelch, monitor ch 16.
10. Cockpit / Swimstep: secure deck furniture, BBQ grill cover, and propane locker. Confirm dinghy and davit are properly secured at both compression posts, cross tension lines in place.
11. Window Coverings: open blinds and curtains for 360-degree visibility.
12. Shore Power: disconnect shore power; stow cord(s).
13. Engine Room: conduct a visual check under and around the engines looking for any signs of abnormal fluid spotting. Confirm all equipment / gear / bins are stowed.
14. Oil and Coolant: visual check each day for new spotting; weekly, check oil and coolant levels in engine and generator.
15. Seawater Strainers: confirm seacocks for the engines and genset are open and seawater strainers are clear.
16. Fuel Strainers: confirm fuel strainer bowels have clean fuel and no accumulation of water. Vacuum gauges max indication needle is below 5". Reset needles to zero.
17. Engine Room: secure Engine Room hatch, turn OFF the Engine Room lights.

Starting Engines:

1. Salon Doors: close the doors.
2. Engine Controls: select ON for the power switch
3. Engine Start Batteries: confirm master switches are ON and parallel switch is OFF
4. Engine Start Keys: ensure start keys are in place at the lower helm. Turn ON.
5. Throttle / Shifter Levers: ensure both levers are in neutral position; Active & Warm is established at the desired helm.
6. Starting: from either helm: port engine first, PUSH the start button until the engine starts. Then starboard engine, same steps. Engine will normally 'catch' and starts after just 1-2 seconds of starter engagement. Allow about 10-15 seconds before the second engine start. If an engine starter doesn't engage, be sure the levers at the active helm are in neutral (safety interlock). If engines do not start easily, stop and investigate, something is amiss.
7. Exhaust Water: confirm a modest flow of water is running from both engine exhausts.
8. Oil Pressures: check oil pressure, typically 35-45 psi when engines are cold at idle.
9. Warm-up: allow 2-3 minutes minimum to ensure stable engines. Idle speed will stabilize at 600 RPM. Ok to depart once engine temp has reached 80 F or above.
10. Salon Doors: keep closed when engines are running to prevent diesel exhaust fumes from entering the interior of the ship.

Quick Start Procedures – Sea Wings

Leaving the Dock:

1. Nav Lights: turn ON Navigation Lights if conditions warrant; ensure anchor light is OFF
2. Rudders: ensure they are centered.
3. Thrusters: activate and momentarily test each thruster.
4. Headsets: skipper and first mate, extra crew if desired, don the Eartec wireless headsets.
5. Skipper / Crew: discuss departure plan taking into account conditions and vessel position relative to other vessels / hazards.
6. Roving Fender: assign an available crew member to manage the roving fender.
7. Traffic: final check of conditions and traffic.
8. Mooring Lines: cast off and depart per plan, stow mooring lines.
9. Transom Door: close and latch.
10. Fenders: once appropriate, stow the smaller four fenders in the fender racks at the fore deck. The larger fenders can be stowed in the lazarette or cockpit.

Always use the Upper Helm station for departure / arrival, there is better visibility.

Underway:

1. Headsets: shut off and stow.
2. Helm person: shall be "on watch" at all times. Be alert for logs or debris in water, it's out there with surprising regularity. Monitor the gauges, regularly validate your position and depth.
3. Engine Warm-up: keep RPMs under 1000 RPM until engine temps are above 135 degrees and below 1300 RPM until 155 degrees.
4. Boat Wake: always keep effects of your wake in mind.
5. Cruise Speeds: Three cruising sweet spots:
 - a. Super Econo cruise: 7.5 kts @ 1050 RPM (~4.5 gph), trim tabs – fully BOW UP
 - b. Econo cruise: 9.5 kts @ 1250 RPM (~7.7 gph), trim tabs – fully BOW UP
 - c. High Speed cruise: 14 kts @ 1750 RPM (~19 gph), trim tabs – fully BOW DOWN
6. Engine SYNC:
 - a. Match the throttles in forward gear
 - b. Select the WARM/SYNC button
 - c. Disengage SYNC with a second momentary press of the WARM/SYNC button
7. Reminders:
 - a. SUSTAINED CRUISE ABOVE 2000 RPM IS NOT ALLOWED
 - b. Once every other cruise day, run at High Speed cruise for 15 minutes
 - c. Remember to raise the trim tabs (BOW UP) when you slow down or cruise below 1500 RPM
 - d. "Normal" readings: Engine temp: 155-165 F; Oil pressure: 30 - 45 psi

Approaching Dock:

1. Skipper / Crew: discuss plan to safely get to the dock.
2. Headsets: don the Eartec headsets
3. Fenders: put fenders on appropriate side (larger fenders on dock side at appropriate height, smaller ones on non-dock side at a height just below the rub rail), rove fender at the ready.
4. Mooring Lines: setup lines (bow, stern, midship) to cleats; ensure Bow line runs 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.
5. Thrusters: Enable the thrusters, tap momentarily to confirm operation.
6. Rudders: amidships
7. Engines: use minimum safe speed for conditions, usually dead slow (Idle).
8. Crew: mate ready to step off swim step and secure stern first (most circumstances), then Bow. In heavier crosswind conditions, best to secure mid-line first and keep it as short as possible, then stern and bow lines.

Quick Start Procedures – Sea Wings

Upon Arrival at Dock in Marina:

1. Mooring Lines: 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. Chartplotters: Turn OFF Flybridge and Pilothouse chartersplotters (flybridge OFF first), then turn OFF unnecessary breakers; replace sunscreen covers at both helms and canvas covers on Pilothouse Fwd windows and door as appropriate. Shut down the iPad at the lower helm.
4. Engines: press the STOP button and hold for a few seconds to kill each engine or turn off the keys at the lower helm.
 - a. Engine Keys: Be sure you have turned off the keys if you killed the engines using the STOP button at the upper helm. Leave the keys in place
 - b. Engine Controls: Turn OFF the power switch
5. Shore Power: choose the appropriate cord and adapter if needed for the power source on the dock. Once shore power is connected, make certain there is at least 110 volts on the AC panel meter, both line 1 & 2. (See Electrical section of Owner's Notes for details.)
6. Headsets: power down and stow the Eartec headsets. (Recharge after 3-4 days of total use.)

Tying up to a Mooring Buoy:

1. *Sea Wings* exceeds the maximum length allowed (45 feet) and is therefore not allowed to use WA state or BC mooring buoy systems.

Anchoring:

1. Windlass: ensure the windlass breaker is ON. Release the safety tether that secures anchor. Bring the bucket from the lazarette that has the anchor bridle.
2. Anchor is lowered with foot switches on the fore deck. Be careful that anchor doesn't swing wildly and hit the bow. A better technique is to lower the anchor over the roller slowly by feeding out in short bursts. Once over the roller, promptly get the anchor into the water.
3. The mate at the bow will monitor length of chain going out and 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, 200 ft, and 300 ft marks, there is a distinct double segment of nylon line woven into the chain.
4. The working rode is all chain, 310 ft and then followed by 25 ft triple braid nylon rode that is attached to the ship in the anchor locker.
5. When the desired chain length is out, stop the windlass. Target scope of at least 4:1 at high tide.
6. Attach anchor bridle to the anchor chain and the lines to the bow cleats. Run out enough rode to form a resting loop in the chain rode so the rode tension is transferred to the bridle / bow cleats.
7. Skipper to reverse on just one engine at idle speed to test the set of the anchor. (Never both engines in reverse).
8. Turn OFF the Windlass power at the power panel. Power down and stow the Eartec headsets.
9. Press the STOP button and hold until the engine shuts down; remember to turn the engine keys OFF at the lower helm; turn OFF the Engine Controls power switch.
10. Turn OFF chartplotters and unnecessary systems at the circuit breaker panel, replace sunscreen covers on the electronics, canvas covers on Pilothouse windows as appropriate. Shut down the iPad at the lower helm.
11. See Owner's Notes for instructions on hauling anchor and saltwater washdown of the anchor rode.

Quick Start Procedures – Sea Wings

Daily (Overnight) Checklist in Marina:

1. Shore Power: confirm voltage is in normal range (110-125 VAC).
2. House Battery Monitor: confirm voltage is above 12.9 VDC, State of Charge is at or approaching 100%
3. Inverter: ensure the selector toggle switch is in the Charge Only position.
4. Genset Battery Monitor: confirm voltage is above 13.2 VDC, State of Charge is at or approaching 100%
5. Canvas and Sunscreen Covers: use canvas as appropriate to prevent rain / moisture from settling on the gauges / seats. Use sunscreen covers to assist with sun-load heating.
6. Tank Levels: keep an eye on water tank level and holding tank levels.
7. Salt Spray: if permitted by the marina, take the opportunity to wash down the salt residue from the hull and topsides, especially on the hull where the fenders are hanging along the dock. And remember to flush the salt residue off the pilothouse and flybridge windows.

Daily (Overnight) Checklist at Anchor or Mooring Line:

1. Anchor light: ON during hours of darkness.
2. Systems: turn off unnecessary electrical items.
3. Engine: confirm engine keys are OFF; confirm Engine Controls power switch is OFF.
4. Inverter: use inverter as needed (Starlink requires the inverter be ON) and then disable to prevent unnecessary house battery drainage.
5. Battery Status: monitor the House battery State of Charge. Run the genset if charge level is approaching or below 25%, best to have at least 35% before 'lights out'.
6. Tank Levels: keep an eye on water tank and holding tank levels.
7. Salt Spray: 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 of the pilothouse and flybridge using large quantities of fresh water (flush the salt away, don't rub). Fresh water is readily available from the transom shower faucet.

First Thing Each Day:

1. Lights: if at anchor, turn OFF anchor light.
2. Battery Status: monitor the House Battery State of Charge, run the genset if approaching or below 25%.
3. Tank Levels: Check water tank and holding tank levels. Discontinue use and empty the holding tank if at 75% level or above.

Before Leaving Vessel:

1. Electrical Panel: turn OFF unnecessary systems (Yellow circuit breakers).
2. Sunscreens and Window Shades: use pilothouse window coverings and window blinds for theft deterrence and UV / heat protection.
3. Window and Salon Door Coverings: use blinds and curtains for theft deterrence and further UV / heat management.
4. Access Points: lock the pilothouse door, the salon doors, the lazarette hatch and the forward stateroom hatch.