OPERATION MANUAL

Old Soul fka Shantina

Welcome aboard!

We are happy you have chosen ***Old Soul*** for your vacation. We hope you will enjoy yourselves and find memorable experiences on her as much as we have! She provides a great opportunity to have fun while cruising the enchanting islands of the Pacific Northwest.

An Old Soul is characterized by wisdom acquired and utilized over the years. An Old Soul is easy to be around and makes you feel safe. Built in the elegant tradition of sea-worthy wooden trawlers, she epitomizes the classic cruising vessel of the Inside Passage, but with modern amenities. She rides comfortably; her well laid-out interiors are constructed of hand-crafted teak; her complete exterior walk-around design and extensive teak decks allow for great sight-seeing, activities, and adventure.

We trust this manual will help you become familiar with the boat. If you have questions about ***Old Soul*** or about places to visit, please do not hesitate to ask the AYC staff.

2023 (v1)

East side Cypress Island

Pinniped Paradise

Table of Contents

BOAT OPERATION

Engine Inspection

Remember your morning **"WOBBS"** check: **W**ater (Coolant), **O**il, **B**elts, **B**ilges & **S**ea Strainer.

W These are WATER-cooled engines; check the level of pink COOLANT in the expansion tanks just forward of each engine. Add coolant only if the level is BELOW the Cold Fill Line.

O Check the level of engine OIL using the dipsticks located on the interior side of each engine block. Look at the etch marks that indicate the proper oil level. Only add oil if the level is MORE than ¼ inch below the etch mark. **DO NOT OVERFILL OIL!** Please use a paper towel or oil rag when checking the oil, not the dish towels!

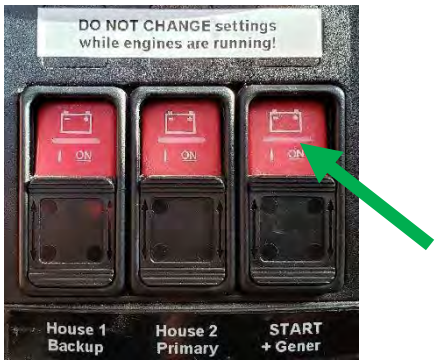
B Check the general condition of the BELTS, HOSES, and FUEL LINES.

B If BILGES have excess fluids, check source of fluid and whether bilge pumps are working.

S Check engine SEA STRAINERS (forward of each engine below the boards). Ensure the seacock valve on each Raw Water Thru-Hull is in the **'open'** position (lever in-line with valve). Observe the glass of each SEA STRAINER for debris. If necessary, close the seacock, open the strainer cover, clean the strainer, and reassemble. Remember to re-open the seacock.

While in the engine compartment, check your GENERATOR fluids as well. Make sure the generator Raw Water Intake is open (below center board #11) and the generator's Sea Strainer is clean (just aft of the port engine). If you ran the generator while moored in shallow water there is likely to be eel grass or other material in the Sea Strainer. For cleaning, there is a set of calipers (in top drawer of salon helm seat) used for opening the Groco Sea Strainer.

Engine Start-Up



The engines can only be started from the salon helm station. They do not need Preheat. The "START" battery must be ON to start the engines. See photo to the right; do NOT alter these switches while the engines are running. For more information see *BOAT ELECTRICAL: House 12-Volt DC System,* page 10.

Normally start the starboard engine first, as it charges the "START" battery. For cold temperature engine starting see the *APPENDICES: Cold Engine Start*, page 28.

Starting the Engines Checklist:

1. Ensure GEARSHIFTS are in 'neutral', or the engines cannot be started because of the "neutral lockout". (If engine won't turn over this is usually the cause – jog the gearshift.)
2. Move the starboard throttle up at least half-way; turn the key clockwise to the ON position (the Engine Alarm will sound); press and hold the START button. Pull the throttle back when the engine catches. The tachometer may take a minute to respond.

3. Repeat the same process for the port engine.
4. *Check the exhaust at the stern; ensure that seawater is flowing through both engines.*
5. Move the throttles to raise the engine speed to 1200 - 1400 RPM to warm the engines. Warm the engines at least 5 minutes before attempting to maneuver the boat.
6. Check the readings at the engine gauges. (Labels indicate normal readings.)

Note: It is normal for the tachometer to take a bit of time to start reading the RPMs. Revving the engines a couple of times will help this along.

Note: If oil pressure is low, shut down engine, and inspect engine compartment. Look for possible cause (for example, loss of oil).

Caution: If an engine is overheating or there is lack of raw water expelled in the engine exhaust, stop the engine immediately. Recheck the raw water-cooling system to ensure the seacock is 'open' (handle in-line with valve). Re-accomplish the SEA STRAINER check described above. Re-start the engine and re-check water flow from the exhaust. If water is not flowing properly, the RAW WATER PUMP may need to be serviced. Seek help.

Note: Due to a side-effect of *Old Soul* wiring scheme:
1. If you run the **generator** while also running the main engines, one of the tachometers will read zero.
2. If you run the **generator** while also running the main engines, and still have the **AC battery charger on**, both tachometers will usually read zero.

Generator - The generator does NOT usually need to be used when the main engines are running because the engines are charging the batteries and the 3000-watt inverter supplies your AC power needs. But you may wish to run the generator if your AC power needs are causing low voltage alarms. For example, using toaster or electric griddle plus microwave.

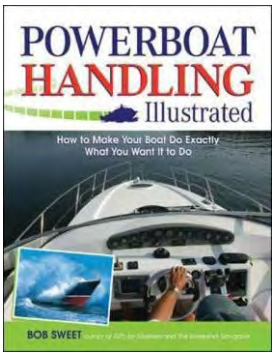
Getting Underway

Flybridge helm station photo to left.

VISIBILITY is best from the flybridge helm; close quarters maneuvering should be conducted from the flybridge helm whenever possible.

Note: The navigation electronics will usually come on when you turn ON the applicable circuit breakers at the Main Electrical Panel. For any that don't come on, briefly press (it will beep) and release the power button on the applicable monitor.

The electronics are left installed on the boat during the season, so unhooking each night is not required. PLEASE keep the electronics covers in a safe place near the devices. The flybridge covers can be kept conveniently behind the console wooden doors.

The paperback book *Powerboat Handling Illustrated* has a great deal of really useful information about boat handling during Departure, Cruise and particularly Docking. It's easy reading with great diagrams. A copy is in the brown basket on the AFT Salon Shelf. (If you want your own copy, the AYC office sells these books.)	

Departure Checklist:

1. Find the appropriate charts and understand the path you plan to take.
2. Make sure all standing items are put in a secure place to prevent them from falling.
3. Rotate AC Source Selector switch to OFF and DISCONNECT both ends of the shore power cord. See *BOAT ELECTRICAL: 115-Volt AC System*, page 8. *NOTE: You may choose to disconnect the shore power cord BEFORE starting engines; this can avoid embarrassment and damage!*

4. Set Main Electrical Panel switches to appropriate positions (yellow dots ON), and ensure your VHF radios and electronics are coming on (GPS systems and autopilot). Adjust electronics to settings you prefer.
5. Close the portholes, windows, and hatches.
6. Assign crew members their various positions.
7. Make sure the bow of the dinghy has the thick black strap attached and the dinghy painter (bow line) is tied off so it can't drag in the water.
8. Turn on power to the BOWTHRUSTER by pressing both ON buttons simultaneously.
9. Depart slip under power; once outside the marina, slow cruise while you while you direct your crew to bring in fenders and lines.

NOTE: Ensure the throttles are in the IDLE position before engaging or switching the gearshifts to avoid transmission damage.

Cruising

Cruising engine speed is a maximum of 1800 RPM. If you run at 1725 RPM you will cruise at about 7.5 – 8.0 knots (water speed) and use about 3 gallons of diesel per hour (a very economical cruise indeed). The tachometers may not read exactly the same as each other when synchronized – listen to the sounds of the engines, and adjust the throttles as necessary, until you can hear that the engines are synchronized. Your actual speed along your route as indicated by the GPS will vary, of course, based primarily on the tidal current. *Note: Avoid higher engine speeds as they cause higher engine temperature, wear, VIBRATION, possible damage, and higher fuel consumption.*

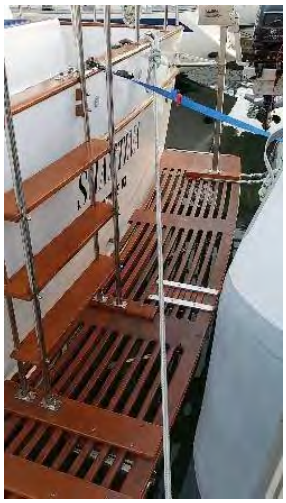
Docking and Securing Boat

Approach. Have your crew make ready the lines & fenders; give your crew clear instructions on their duties. A crew member may need to step off from the swim platform with the stern line. Another crew member may need to be at the bow or mid-ships to hand over the next line.

Turn on power to the BOWTHRUSTER by pressing both ON buttons simultaneously. Before entering the marina or dock area, press the red and green buttons for a few seconds each to verify operation and to clear out any seaweed or other matter that got into the thruster tunnel.

Maneuvering. While moving to the dock or mooring location, it's best to center the WHEEL (e.g. rudders straight) and use only the GEARSHIFTS and THROTTLES to maneuver the boat. Go slow. The BOWTHRUSTER can also be useful to accelerate turns, or when entering the slip or aligning with a dock.

Tying-Up. At the dock, *Old Soul* will be secured with more stability and it will be easier to get on and off if you add a stern line across the transom. This will keep *Old Soul* closer to the dock. Photos below show transom stern lines for port tie-up and starboard tie-up. Be careful to position *Old Soul* forward or aft as necessary along the dock with spring lines, so that this stern line does not rub against the swim platform ladder, or the davit, or the dinghy.



Port side tie, view from dock

Port side tie, view from boat

Starboard tie, view from above

Starboard tie, view towards dock

A **PORT-SIDE** TIE-UP is PREFERRED. It's easier for boarding or disembarking using the swim platform and the transom ladder. But for either side access to the boat through the teak hand-rail gates, there is an available three-step aluminum ladder secured to the flybridge aft teak hand-rail (behind deck box). This ladder should be used with caution (go slow) so that accidents are prevented.

Engine Shut-Down

Before shutting down, allow the engines to idle for about 5 minutes to cool them gradually and uniformly. The time engaged in preparing to dock the boat is usually sufficient. Ensure each gearshift is in the neutral position and each throttle is in the idle position.

To stop each engine: While the key is still ON, press and hold the KILL switch until the engine has stopped. Then turn off the power to engine by turning the key to OFF. If you are slow to do this the engine alarm will sound.

If you altered the battery switches prior to engine start, now you could change them back.

Fueling

Yellow filler caps are located mid-ships on both sides of the walking deck; open them with a DECK FITTING KEY (in top drawer of the salon helm seat). Diesel odor lasts for a while on your hands, so disposable rubber gloves are available (in port side aft cabinet of the salon).

Have oil / fuel sorbs ready to soak up spilled fuel. Locate Fuel Tank Vents in order to listen to tanks becoming full and to know where sorbs may be needed (see Thru-Hull figures, page 27). Estimate how much fuel you need based on fuel tank readings (each tank holds 200 gallons).

MAKE SURE YOU HAVE THE RIGHT FUEL! DIESEL! DIESEL! DIESEL! MAKE SURE IT IS GOING INTO THE CORRECT DECK FILL! DOUBLE-CHECK!

Place the DIESEL nozzle into the tank opening, pump evenly, and note the sound of the fuel flow. Pumping too fast may not allow enough time for air to escape, which may result in spouting from the tank opening. As the tank fills, the sound may rise in pitch **or it will gurgle**. Pay attention and listen to the Diesel Tank Vent on the outside of the hull. **When you hear the gurgle you're nearly done!** Top off carefully, and be prepared to catch spilled fuel. Have an assistant ready at the Tank Vent because spillage may result in a monetary fine from law enforcement. Replace each tank cap. Turn on blower before re-starting engines. *Caution -- Clean up splatter and spillage immediately for both environmental and health reasons.*

BOAT ELECTRICAL

The electrical system is divided into two distribution systems: **115-Volt AC** and **12-Volt DC**. These systems are controlled from the MAIN ELECTRICAL PANEL, on the port side of the salon helm station (photo at right). The panel has a large upper section and a smaller lower section; each of these is divided into AC & DC portions. The upper part of the large section (above blue bar) is DC and the remainder is AC. For the lower section of the panel, DC is left and AC is right.

Breakers & switches on the MAIN ELECTRICAL PANEL are marked with colored dots. Note that switch positions (ON vs. OFF) are different between the upper & lower sections of the Main Electrical Panel.

115-Volt AC System

When docked, SHORE POWER supports all AC equipment and receptacles on board, as well as the Battery Charger.

Shore Power Connection Checklist:

1. Check that the ship's **A.C. Source Selector** is OFF.
2. Turn OFF the breakers at the dock power post. Check the power rating / plug size of dock receptacle (50, 30, 20 or 15 amp). If not 30, add a CORD ADAPTOR (top drawer of salon helm seat) to the POWER CORD.
3. Lay out the 30 amp POWER CORD. Cord coming off bow can be wrapped loosely around the bow line, or off the anchor and loosely around the dock power post.
4. Connect the cord to the boat first, then to dock power.
5. Turn on the dock's breaker.
6. Rotate the ship's **A.C. Source Selector** to SHORE.
7. Flip the double A.C. 115-Volt MAIN POWER breaker ON, then other applicable (green) breakers to ON.

Be careful not to overload the Shore Power connection; if the load exceeds 30 amps the breaker will pop

Warning: If Power Cord is unplugged from dock while the A.C. Source Selector is on SHORE, then the cord is still active and can shock anyone touching the metal terminals.

Note: All AC power is analyzed and routed by the Inverter, even when on Shore Power, so always leave the Inverter ON. If AC outlets fail to work, check whether GFIs have been tripped (just reset). Be aware that one GFI breaker may supply outlets in several areas.

Inverter Power

Old Soul has a 3000 watt inverter that converts DC battery power to useful AC power. The small inverter control panel is located below the stereo in the salon. You do NOT need to turn the inverter on or off; it senses whether there is a source of 115-Volt AC power (shore power or generator). If there isn't, the inverter automatically converts DC battery power to AC to supply your needs. Note: The inverter always takes its DC power from the selected House batteries. Pay attention to their status when using the inverter's AC power. (The inverter is wired so that it cannot power the AC Water Heater.)

Warning: At anchor, quick battery drain will occur if AC power (the inverter) is used carelessly. Hair dryers, toaster, coffee pot, etc, will combine to discharge the selected House batteries. If you anticipate high AC energy needs, start the generator. See Generator information below and Generator notes on pages 3 and 4.

Warning: Portable electronic device chargers will draw battery power whenever plugged in – whether the device (cell phone) is attached or not. The inverter is there to charge electronics, but the chargers should be unplugged after the device is fully charged.

The inverter has additional duties such as monitoring the quality of shore power, etc. In some circumstances the inverter will shut down all AC power, even shore power, if it detects problems. Normally, after a 10-minute cooling period, it will automatically restore AC power.

Generator

You should check generator fluids and sea strainer when completing the morning engine checks. To start the generator, use the controls located at the port side aft cabinet in the salon.

Generator Start Procedure:

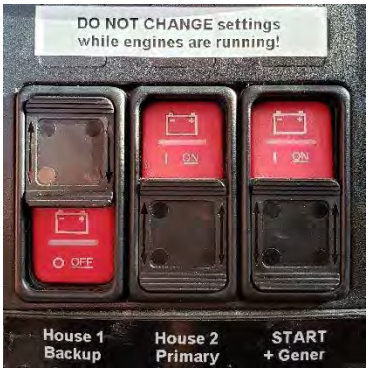
1. Check that "START" battery is on.
2. Press the Preheat Switch (the upper switch) down for 10-15 seconds. The lights on the gauges should turn red.
3. While still holding the preheat switch down, pull the lower switch up – this is the "Start" position of the Start/Stop Switch.
4. When the engine starts, release the lower switch, but continue to hold the upper switch down for another 2-3 seconds.
5. Check that water is coming out the exhaust that is outside on the port hull amidships.
6. Verify normal readings at the gauges.
7. Warm-up the generator for 3-5 minutes, then turn the A.C. Source Selector switch (on Main Electrical Panel at salon helm station, & shown below) to "ONAN".
8. Turn on AC breakers as appropriate.

Note: Do not excessively crank the generator. If you do, then quit trying to start it for a half-hour. The generator is quiet. You may not hear it start unless you turn down the stereo or other noise sources.

To turn the generator off, first take off the load by turning the Source Selector Switch to OFF. Let the generator run for 3-5 minutes more after removing load to let it cool down. Lastly, kill the generator by pressing the Start/Stop Switch down until the generator stops.

House 12-Volt DC System

	House 1 bank	**House 2 bank**	**START bank**
Old Soul has **three banks** of batteries:	(Backup) Consists of two golf cart batteries wired serially for 12-volt power.	(Primary) Consists of four golf cart batteries wired serially & in parallel for extended 12-volt power. This is the Primary source of House power.	(+ Generator) This is a large 8D battery used only for starting the engines & generator.



Battery banks are turned ON and OFF remotely from a panel at the salon helm station. Turn a bank ON or OFF by sliding the black cover and pressing the red button underneath. You will hear a pop when it turns on or off. DON'T manually manipulate the switches in the engine room. *Note: Do not change any battery switches while the engines are running – this could damage the alternator diodes. Change positions only with the engines off.*

The "Old Salt" Captain setup for *Old Soul* is "House 1" OFF; "House 2" and "START" ON. This allows plenty of power plus a reserve, in case you forgot to run the generator before it is was too late. Many other Captains prefer to select both House banks simultaneously and just keep a watchful eye on battery status, running the generator when needed to recharge. In either case, you would rarely need to alter the battery switch settings. To use both "House 1" and "House 2" at the same time, turn both ON.

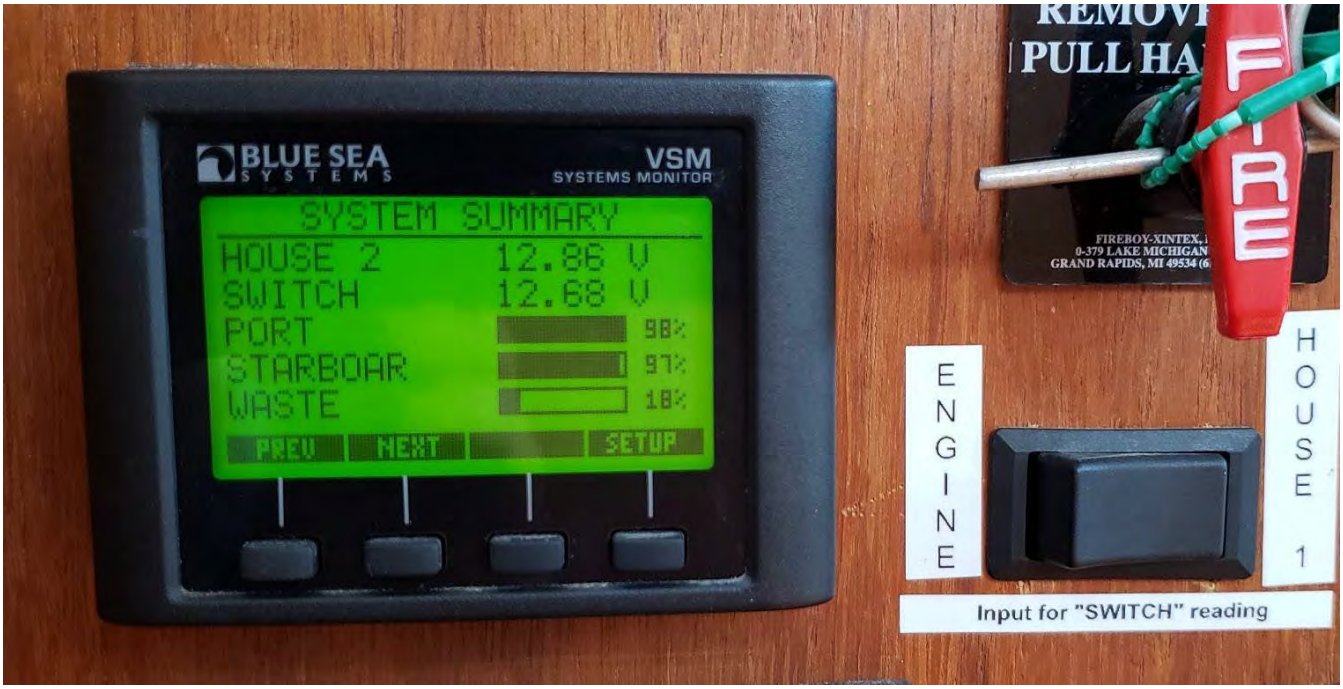
All mandatory ON systems – like the sump and bilge pumps – are wired to "House 2". "House 2" has twice as much capacity as "House 1". All three battery banks are recharged by the 75 amp MasterVolt AC Battery Charger, if using either shore power or the generator, no matter which battery banks are ON. Batteries are also charged by 50 amp engine ALTERNATORS while underway: the starboard Alternator always charges the "START" battery and the port Alternator always charges the "House 2" bank. In addition, the port Alternator will also charge the "House 1" bank – but only if both "House 1" and "House 2" switches are ON.

Except when charging, the 12-volt batteries are providing all power. Therefore, monitor the use of onboard electricity carefully, and turn off electrical devices that are not needed. **Your occasional use breakers, such as the anchor windlass, should always be turned off after every use.** Bilge pump breakers are not at the Main Electrical Panel, they are located in the engine room on the panel forward of the port engine. They are reset breakers only and do not need to be switched on or off.

Tracking Battery and Tank Status

There is a System Status Monitor located port side of the stairs to the aft stateroom. This monitor shows the voltages of all battery banks, as well as the status of the fuel and waste tanks. Various screens of information are available on the monitor. Keep pushing the two lower left black buttons until the useful screen shown below is displayed. It reads as follows:

HOUSE 2 - voltage on the “House 2” battery bank
SWITCH - voltage of the “START” or “House 1” battery bank, depending on the setting of the switch to the right of the display.
PORT - approximate port fuel tank percent full
STARBOARD - approximate starboard fuel tank percent full
WASTE - approximate waste tank percent full



When a battery bank is being charged, the voltage will be in the range of 13.1 to 14.8 volts, depending upon the progress of the charging. When the battery bank is at rest, (that is, not being charged), the voltmeter can give a rough indication of the state-of-charge of the battery bank:

Voltage (Wet Cell Battery)	Battery State
12.65 volts	100%
12.47 volts	75%
12.25 volts	50%
11.95 volts	25%
11.70 volts	0%

NOTE: The FUEL and WASTE tank readings are approximations. These tanks are all trapezoidal – they hold more at the top of the tank than the bottom. The two fuel tanks will initially seem to descend slowly as they go down from the higher percentages, the waste tank will initially seem to rise rapidly as it climbs up through the lower percentages.

This System Status Monitor will sound an ALARM when voltage / tank levels require attention. The alarm for fuel levels is at low level and the waste tank alarm is at high level. If the alarm goes off incorrectly and on a continuous basis then pull the connector out of the back of the unit. After 20 minutes plug the connector back in.

SANITATION SYSTEM

Marine Toilet

All crew members must be informed on the use of the MARINE TOILETS. These toilets include macerators. The valves, openings, and pumps are small; they may clog if improper items are flushed. If this happens, it is YOUR RESONSIBILITY! Always flush the toilets for children to avoid foreign objects in the bowl.

Caution *– **Never** put paper towels, tampons, Kleenex, sanitary napkins, household toilet paper, or food into the marine toilet. Use only the special dissolving marine toilet tissue provided by AYC.*

The waste tank is 103 gallons – recommended that you flush every time something is placed in the toilet. It is easier to pump the waste tank a little more often than to clear a plugged toilet.

Normal Toilet Operation: **Liquid Waste only**. Use toilet *without* prefilling with water. When done, press the Flush button (#2 in diagram) and hold for about 10 seconds. Holding the button helps eliminate later siphoning of any water back into the bowl.

Normal Toilet Operation: **Liquid AND Solid Waste**. First press the Fill button (#1 in diagram) until the toilet has sufficient water. Use the toilet. When done, press the Flush button and hold for about 10 seconds. If any residue remains, refill the bowl with a little fresh water, wait a few moments, then flush and hold again.

Waste Tank & Pump-Outs

All toilet effluent flushes directly into a central sanitation WASTE TANK. (There is no Y-valve on *Old Soul* for direct overboard discharge.) This onboard tank is large, but must be pumped out regularly. If the tank overfills it is possible to break a hose, clog a vent, or burst the tank. The result will be indescribable catastrophe ☹ and an EXPENSIVE FIX. Empty the tank EVERY FEW DAYS to avoid this problem. *The **approximate** status of the Waste Tank can be seen at the vessel's System Status Monitor (see page 11). This system will give you an alarm at 85% full.*

The WASTE TANK is located under the floorboards between the engines. The fresh-water toilets on *Old Soul* macerate everything as it is flushed out of the toilet, so pump-outs of the Waste Tank usually go smoothly.

For pump-outs, a STARBOARD SIDE TIE-UP of *Old Soul* works best since the Waste Tank Cap is on the starboard side of the boat. NOTE: the pump-out station at Cap Sante Marina is far stronger and more efficient than the one at Anacortes Marina.

The Waste Tank is **normally** emptied at a Marine Pump-Out Station (or through a paid pumping service such as "The Fecal Freak"). Steps are:

1. Remove the WASTE CAP located amidships on the starboard side.
2. Insert the pump-out nozzle onto the waste opening. Double-check your deck fitting!
3. Turn on pump and open valve located on handle. (You will see brown liquid rushing through the clear plastic sight portion of the vacuum tube.)
4. When pumping is finished, close lever on handle and turn off pump. Remove nozzle from deck fitting.
5. If there is a fresh water hose on the dock, rinse the tank by adding several minutes of water into tank. Then re-pump to leave the tank rinsed and odor-free for the next use or next charter. Replace the WASTE CAP and rinse off the adjacent deck area.

Another method of pumping out is to do what the fish do – discharge the tank contents directly overboard. But this is permissible only in Canadian waters. Steps are:

1. Turn on the "MACERATOR PUMP" breaker on the left side of the lower Electrical Panel at the salon helm.
2. Find the "Pump Waste Now" switch on the right side of the upper Electrical Panel at the salon helm station. Push the switch to the side and hold it there.
3. Have a second person observe and report on the discharge outside, amidships on the starboard side.
4. You can stop pumping when effluent waste is no longer being pushed out. The tank is 103 gallons so it could take considerable time to pump out.
5. Switch off the "MACERATOR PUMP" breaker

FRESH WATER SYSTEM

Fresh Water System Components

Two connected FRESH WATER TANKS hold a total of 200 gallons. The tanks are located under the bed in the aft stateroom. These tanks feed the onboard sinks and showers and toilets. (The sinks and showers drain overboard through various pumps and thru-hulls.)

A gauge shows the amount of fresh water onboard (located below other monitors at the port side aft cabinet in salon). To refill the tanks, remove the silver WATER CAPS at the filler ports located on the aft deck and fill using the water hose available in the Flybridge Deck Box. Note: The tanks are connected but the flow between them is slow. Check that both filler ports are full before replacing the water caps. Avoid flushing debris from the deck into the tank opening. The gauge may lag when filling.

The FRESH WATER PUMP is on the aft bulkhead, starboard, in the engine room. Switch the pump ON at the Main Electrical Panel by using the breaker. If the pump runs continuously, you are either out of water or might have an air lock (bleed the system by opening up a faucet).

Water is heated by a 115-volt AC electric HOT WATER HEATER with an 11 gallon capacity, powered by shore power or the generator. Water is also heated via a heat exchanger when the starboard engine is running. The water heater is in the engine room, starboard side, forward of the fuel tank. To use the heater on shore power or generator, flip on the water heater circuit breaker at the AC Main Electrical Panel. If you run out of water SHUT OFF YOUR HOT WATER HEATER at the AC panel. ***Serious damage can occur if the hot water heater is left ON with no water in it!!***

Showers

Before taking a SHOWER, make sure the Fresh Water Pump breaker is on. Recommend taking short “boat” showers (turning off water between soaping up and rinsing) so as to maintain your water supply if you don’t expect to be able to refill your tanks soon. Both showers have shut-off buttons that actually work.

The aft head shower has a high efficiency “Oxygenics” showerhead that yields lots of spray at low water flow (photo to right). This is the most convenient shower (and easiest to clean-up). The shower in the forward head is a sink handle lift-out shower with a Swedish high efficiency faucet. It varies between stream & spray by pulling or pushing the head in or out (photos below).

When done using either shower, leave the shut-off button OPEN, diverter switch CLOSED, & turn off the water at the faucet. This prevents unpleasant surprises for the next person using the faucets.

To keep shower tidy wipe down the shower stall and floor. Check for accumulation of hair in the shower and sink drains.

GALLEY

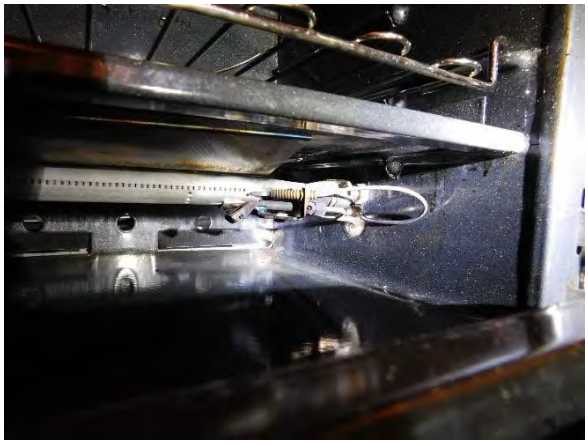
Stovetop & Oven

The PROPANE **STOVETOP** is activated by the following steps:

1. Make sure the valve is open at the propane tank located in the flybridge console cabinet, port side.
2. Turn on the Solenoid Control switch labeled “GAS ON” located just below the kitchen sink (see photo to right).
3. Lift the stovetop countertop; slide down behind stovetop.
4. Turn on the gas at the stovetop (Press in and rotate the knob left) and press “Burner Ignite”. Press the ignite button multiple times until the burner lights and then rotate the knob to the appropriate heat.

The PROPANE **OVEN** is activated by the following steps:

1. 2. and 3. Same as above for STOVETOP.
4. Get lighter from the basket above the countertop. Turn gas on at the oven by rotating the knob to “PILOT ON”. Press “OVEN SAFETY”; use lighter to ignite the pilot light; continue holding the “OVEN SAFETY” button for about 10 seconds (or the pilot light will flame out).
5. Rotate the main oven knob further to the appropriate setting. The main oven burner will light within a minute after that. Watch it.



When finished cooking turn off the gas switch at the Solenoid Control.

Refrigerato

The refrigerator **always** runs on 12-volt DC power and it draws a significant amount of power. Therefore, monitor the status of your batteries when moored away from shore. Use the generator as needed to recharge batteries.

A thermostat controls the temperature in the refrigerator. Please do not fiddle with the thermostat setting. Minimizing how much the door is open will help keep it cool and prevent frost build-up. The freezer works well (but may not be able to keep ice cream as hard as you like it!).

ELECTRONICS & NAVIGATION

All of the electronics operating manuals are located forward of the salon helm station in the brown basket or in the black briefcase located under the aft dining seat.

VHF Radios

There are two hard-wired VHF RADIOS, powered by the “Marine Radios” breaker at the Main Electrical Panel of the salon helm station (yellow dot). The first VHF RADIO is located above the window of the salon helm station. There is a second VHF RADIO located on the flybridge, starboard of the helm. This radio is left in place throughout the season.

There is also a handheld VHF radio, usually found in a holder at the upper helm station. (The charger is in the basket in front of the salon helm station). This is handy for anyone taking off in the dinghy and wanting to maintain contact with *Old Soul*. Please use Channel 68, 69, etc. if you are chatting between boats or with the dinghy.

Otherwise, always monitor Channel 16 on both of the main VHF RADIOs while underway. See general VHF Radio Procedures in the Waggoner Cruising Guide.

Global Positioning System (GPS)

A fixed-mount 12-inch Garmin GPS / Chartplotter 4212 (photo to right) is on the **flybridge** and a second one (4212 – see page bottom) is at the **salon** helm station. These two systems are connected together and also to the autopilot, radar, and depth sounder.

There is an independent chartplotter and depth sounder located on the starboard side of the flybridge as a backup system (photo next page).

The electronics are turned ON using the breakers and switches on the lower Electrical Panel at the salon helm station (yellow dots):

- AUTO-PILOT
- GPS SONAR COMBO
- GARMIN CHARTPLOTTERS

If any units do not power up after turning on their breakers, then briefly press and release the power button located directly on the unit.

The 12-inch chartplotters are controlled by the array of buttons to the right of the display. A manual for both plotters are in the basket in front of the salon helm station. Both plotters share all chart information, but the displays are independent. The smaller 9-inch chartplotter screen on the flybridge is ‘touch” based and has a similar menu layout to the other GPSs.

***Note:** GPS is considered a navigation aid. Do not rely on it alone. Compasses, charts, and dividers are the tools to plot position, course, and speed.*

Depth Sounder and Radar

The depth readings are displayed on the chartplotters and are available at both helm stations. They may sometimes return errant numbers at extreme depths. Cross check your paper charts with the chartplotter depth readings.

The depth sounder should provide reliable readings in shallow waters. If in doubt, switch it off, then turn it back on to reset sounder. If your reading is blinking, it is a FALSE reading. False readings can occur in depths of more than 200 feet or in areas of strong currents or tides.

The Garmin radar display is available on the chartplotters. Select a display that uses the radar – direct or overlay – and then press menu and “radar to transmit”. The Garmin breakers must be turned on for the radar to work.

Autopilot (GPS)

Both helm stations have an Autopilot control display. The flybridge display is to the right of the helm. The salon helm display is to the upper right near the side window.

The Autopilot can be used to maintain your course, and can turn the boat in increments of 1° or 10°. To have the autopilot steer the boat, manually steer the course you desire and then press the button below ENGAGE. Make a few small turns using autopilot controls to confirm that the autopilot is engaged. To stop having the autopilot steer the boat press the red “STBY” button.

Note: The autopilot can’t avoid logs, other vessels, or hazardous debris in the water. YOU MUST WATCH FOR THEM!! **If you need to avoid something suddenly, simply turn the wheel – the autopilot system will temporarily disconnect its course management.** The top of the display will always indicate whether you or the autopilot are steering the boat.

Note: The Garmin electronics suite, like any set of electronics, can occasionally exhibit strange behavior. If this happens the easiest solution is usually to simply shut down the entire system and then, after a short interval, re-start it. This can be done using the breakers on the lower Electrical Panel at the salon helm station.

The Autopilot system is also Garmin so it integrates with each chartplotter. The autopilot will not work without both systems on and running.

ENTERTAINMENT SYSTEMS

TVs / DVD Players

TVs and DVD Players are provided for the salon and aft stateroom. Each TV is located near a 115-volt AC outlet. The TVs can be used at any time because the inverter provides AC power. Each TV has its own remote. (Please put remotes back after use.)

The **salon** system is located at the port side forward; the TV is mounted on a multi-axis hanger and can be adjusted for best viewing angle. The DVD player is beneath it, hanging on a vertical swivel. (Swing DVD player HIGH then let down to set-up.)

The **aft stateroom** has a TV / DVD combo unit located port side above the hanging locker. The DVD insertion slot is on the right side of the unit. Insert a DVD with the silver side facing toward the front of the TV and the DVD label side facing toward the rear of the TV.

Note: Release the TV by pulling down on the strap behind TV. Be sure to re-secure and lock the TV mounting arm before travel.

There is a clear plastic bin on the salon aft shelf which contains a selection of saltwater-themed DVDs. Yo-Ho, enjoy!

AM/FM Stereo Radios / Digital Players

Old Soul has two Fusion brand stereo units, each with an internal iPod full of music, and each USB or Bluetooth or audio cable compatible with many player devices. The **salon** Fusion is located above the gauges at the salon's port side aft cabinet; the **flybridge** Fusion is port side on the console. These units operate like a car radio but do not accept CDs. (The TV / DVD players do.) There are two speakers in the salon and two in the aft stateroom (individually adjustable) for the salon Fusion unit, and two speakers mounted in the sides of the flybridge for that Fusion unit. The iPods are each in internal docking ports in a "sled". Photos below:

Face


Face Opened

Power: Press the button in the lower left corner (and ensure the "STEREO" circuit breaker is ON).

Menu: At upper left corner. Used for functions such as selecting music from the enclosed iPods or controlling individual speaker volume.

Volume: The big knob controls the volume. The big knob is also used for scrolling through menu options brought up by the MENU button at the upper left (PRESS the big knob to select an option).

Radio: Radio is selected by pressing the upper left of the center nine buttons. It takes you to the radio and then you can select a channel with the knob.

Docked iPod: A "loaded" iPod is already docked in each Fusion unit. Select the upper right button of the center set of nine buttons to gain access. There are thousands of songs available; they can be selected by artist, genre, etc. If you find that an internal iPod will not operate, it may just be not charged. After the Fusion unit has been powered for a few minutes the iPod will begin to operate again.

If you have an iPod 4th generation or older of your own, you can replace the docked iPod with your iPod. Depress the button above the display, and pull the face down. This reveals a compartment inside; remove the existing iPod and replace it with your iPod. Flip the stereo display back up and select your music.

OTHER: Select the upper center button of the center set of nine buttons, again and again, to see the following four additional source choices:

USB MTP BT (Bluetooth) **AUX**

USB: If you have a more recent iPod (iPod 5 or later), then you can use the USB connector (just below Fusion head) to connect your device. Your iPod can then be controlled from the Fusion head.

MTP: not used

BT (Bluetooth): Connect to any Bluetooth device. The Fusion screen will say "Select Device"; push the MENU button. Your Bluetooth device should offer a connection to the Fusion head (such as "MS-700 Salon"). Connect to it. On the Fusion head, if your device name appears in the list, rotate the large knob to highlight your device then push the large knob to select it. Once paired, you can use either your device or the Fusion head to control your music selections.

AUX: This audio-in connection (just below Fusion head) is a 3.5 mm analog audio input similar to those used by headphone jacks. It can be used to connect a device with audio-out to the stereo. An audio cable for this purpose is located in the cabinet behind the salon Fusion head. Using the "earphone" jack on your device, you can connect a computer or tablet or smartphone to the stereo. You can also connect the aft stateroom TV (from earphone jack) to the stereo with this cable, then adjust the speakers accordingly.

ANCHORING

Anchors and Anchor Rode. ----------

The primary WORKING ANCHOR is a 20KG claw with 350 feet of chain. The chain, held in an ANCHOR LOCKER (below deck), is pulled by an electric ANCHOR WINDLASS. The Anchor Locker can be accessed by your crew through the upper cabinet doors in the forward stateroom (necessary while operating the windlass). There is a second anchor and rode in the Lazarette (see on next page).

Lowering the Anchor Checklist:

1. Turn the "Anchor Windlass" breaker **ON**. On WINDLASS panel rotate knob to **ON** (panel to lower right of salon helm wheel). Release the Anchor Keeper Line.
2. Send a crew member down to the Anchor Locker to observe, to warn you of kinks or knots that develop as the chain is pulled.
3. At the bow, tap gently on the "down" foot control to lower the anchor. If necessary, stop the chain and reposition it on the anchor roller to prevent binding at the pulpit. (Mind your fingers!)

4. Let out sufficient chain before setting the anchor. Markers are placed every 30 feet on the chain indicating amount of rode. Even if the anchorage is crowded you need at least a 3:1 scope to get a secure hold (60' of chain for 20' of water depth).
5. Dig the anchor in by briefly engaging reverse thrust with the engines. Then let out additional scope dependent upon conditions.
6. Re-install the Anchor Keeper Line to relieve stress on the Windlass; turn off both of the Windlass electrical switches.

Anchor Rode Markings - Painted on Chain

30' WHITEx1	**150' WHITEx2**	**270' REDx1**
60' YELLOWx1	**180' YELLOWx2**	**300' REDx2**
90' GREENx1	**210' GREENx2**	**330' REDx3**
120' BLUEx1	**240' BLUEx2**	**350' BITTER END**

Raising the Anchor Checklist: (start engines first to ensure sufficient power for Windlass)

1. Turn on both Windlass electrical power switches and release Anchor Keeper (as above).
2. Send a crew member down to the Anchor Locker. **IMPORTANT – this person must FLAKE the chain as it falls into the locker so that the Windlass does not jamb during the next anchoring.** Disposable rubber gloves are in port aft cabinet of the salon.
3. As the boat is powered slowly forward, press the 'up' foot control to take up slack chain. Give the Windlass short rests as you are pulling up the chain.
4. Be in position to guide the anchor onto the roller (mind your fingers!). As the anchor rises, be careful not to allow it to swing against the hull.
5. Wash off mud / debris on the anchor and anchor platform (splash bucket is in Lazarette).
6. Reinstall the Anchor Keeper and turn off both Windlass electrical switches (as above).

Note: The handle for the Windlass manual clutch is under the starboard step in the salon.

Additional Anchoring. In certain circumstances you may require a rear anchor. A **SPARE** Danforth 20KG **ANCHOR** is stowed in the Lazarette. The SPARE ANCHOR RODE is 30 feet of chain and 250 feet of rope. This anchor can be let carefully over the aft end or side of the boat. Please use care with the anchor to avoid damaging the deck or rail; use padding anywhere you need when resting the anchor against teak.

The Lazerette has a reel of line (300') to use for a **STERN TIE**.

Mooring Buoys

The Washington State Parks Sticker on your port window shows that *Old Soul* has an Annual Moorage Permit. This allows you to use DOCKS, FLOATS & MOORING BUOYS in the state parks for free. Mooring buoys are shown on some nautical charts with this symbol:

Mooring buoys have a metal ring at the top which is attached to a chain which runs through the buoy down to a concrete block or screw anchor on the sea bed. THE CHAIN IS HEAVY. A strong crew member should take the job of mooring your boat to the buoy, because that crew member will have to lift the chain. Approach the mooring buoy into the wind / current. As you are coming slowly to the buoy have a crew member holding a boat hook and pointing at the buoy - with the hook - so the skipper always knows where the buoy is. (The skipper won't be able to see the buoy below the bow.) Try to stop the boat with the bow directly over the buoy.

From here there are two ways to "hook" the buoy. One is to use the very clever (and expensive) **ROBSHIP Hook & Moor** pole which is on the wall in *Old Soul's* salon. For this technical wonder, see the drawings and instructions in the Appendices.

The other way to attach to the buoy is with the traditional method of catch and pull. In either case, if this is done in rough water or with a moderate current, if will not be easy….

Mooring Buoy Catch and Pull Checklist:

1. Have crew members at the bow, a strong one with the boat hook, and a nimble one with the free end of a dock line which is already secured to a forward cleat and let outward through the hawse pipe.
2. Strong crew member reaches down with the boat hook, hooks the ring, pulls it up, and grabs the ring by hand (releasing the boat hook).
3. Nimble crew member threads the line through the ring (while strong crew member is still holding the ring).
4. Nimble crew member temporarily secures the free end of the line to the base of any nearby rail stanchion, then the ring is released.
5. When all boat motion and line stress are settled, release the free end of the line from the stanchion and lead it around the outside front of the bow to the opposite side of the boat, then in through the hawse pipe and tie off at the cleat. You will essentially create a bridle with about 10 feet of slack from the bow of the boat to the mooring buoy.

Alternate Method: Maneuver boat so buoy is by port side of swim platform. Catch buoy from the platform with a dock line; use line to "drag" buoy to the bow of the boat & tie off as usual.

DINGHY & OUTBOARD MOTOR

Your 12 foot RIB dinghy with a 20 horsepower outboard motor is hung on the transom with a manual SeaWise davit system. The dinghy has a capacity of about 1000 pounds of people. Coast Guard regulations state any child 14 and under must wear a life jacket in a dinghy. It's a good idea for EVERYONE to follow this rule. Life jackets are stowed under the flybridge seats.

Outboard in
Mid-tilt position

Latch pin & lever

Dinghy Painter

Bow Restraint

Dinghy Deployment Checklist:

1. Loosely tie DINGHY PAINTER (tie-line) to *Old Soul's* stern hand-rail near the port side; unhook the Bow Restraint (black strap) from the dinghy and leave it attached to *Old Soul*.
2. From the aft deck, release the security pin on the winch so the cable can be let out.
3. Make sure the outboard motor is raised to the **mid-tilt** position (just enough to clear the dinghy tube). You might need to engage & release the clutch for the motor to do this.
4. Begin to rotate the handle of the winch to lower the dinghy. Do it smoothly!! Make sure the handle of the outboard motor does not catch on anything as you lower the dinghy.
5. When the dinghy is completely afloat, take the cable off and hook it back to the winch.
6. Tighten the dinghy's transom hold screw (to the left of the outboard motor as you face it) to make sure the motor hinge stays locked down on the dinghy transom.
7. Release the outboard motor tilt to full-down and start the motor.
8. Release the dinghy from the davit: pull the Latch Lock Pins and then lift the Latch Levers. This is easier to do standing on the swim platform (not in the dinghy) and pushing down with one foot on the tube, while lifting the Latch Lever, to get the dinghy out of the latch.
9. Untie the Dinghy Painter (hold in your hand); get in the dinghy and push off.

Note: People are expected to sit on the tubes. Make sure all passengers hold on! ***Sudden stops from high speed runs may get backwash into the boat.***

In the **Dinghy Bow Hatch** are the following supplies:

Dinghy Bilge Pump – used if water has gathered in dinghy.

Air Pump – inflate tubes (all 3) if they sag or feel squishy.

Dinghy Anchor – useful if you are fishing from the dinghy or wish to moor the dinghy near the beach. Be sure to account for rising or falling tides!

Tie-Line Extension – you can pull the dinghy up on the beach (gently or lift) and tie to a rock or log using the Dinghy Painter and this Tie-Line Extension. Take into account the rising or falling tides!

The oars are attached to the inside part of the tubes. If used, please re-attach them when you are finished to avoid loss.

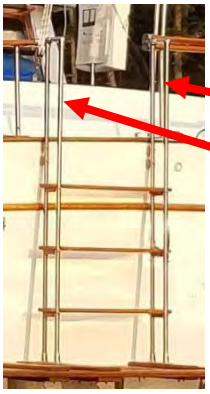
The dinghy can be left overnight in the water, hooked on the Latch Levers but not raised (if you wish). However, be aware that there will be continuous Latch Lever clicking noises (as the boat rocks) that are easily heard (and possibly annoying) in the aft stateroom. ☺

Dinghy Retrieval Checklist:

1. Attach the dinghy to the swim platform Latch Levers and put the Latch Lock Pins in place. MIND YOUR FINGERS! This is easiest to do from standing on the swim platform (not in the dinghy) and pulling the dinghy up into each latch.
2. **Loop and tie Dinghy Painter to the dinghy so it can't get into *Old Soul's* propeller!**
3. Shut off the outboard motor and be sure to raise the motor to the **mid-tilt** position – you may need to engage then release the clutch to do this.
4. Release the transom hold screw to the left of the motor by loosening counter clockwise.
5. Let out the winch cable and attach it to the dinghy at the transom hook that raises the motor.
6. Make sure the gas tank is secured and then slowly rotate the winch handle to raise the dinghy. Make sure you crank slow and ***steady***.
7. Put in the retaining pin in the winch and then release the tension on the winch a little bit.
8. Attach the Bow Restraint (black strap) to the dinghy and then tighten it – it only needs to be tight enough to keep the forward end of the dinghy from flopping.

GETTING UP AND DOWN THE STERN:

When climbing up from the swim platform ***do not grab or pull the opening part of the teak railing – you could break the hinge***.



Grab the side rails of the steel ladder!

SAFETY INFORMATION

SAFETY should be paramount in your daily cruising. A MAN OVERBOARD DRILL should be discussed and perhaps even practiced. There is a LIFE SLING available at the aft starboard rail next to the BBQ. It would be a good idea to inspect it and get familiar with the instructions printed on its cover.

Your FLARES and other safety equipment are located under the port step in the salon. There are also a few AIR HORNS in the 3rd drawer under the salon helm seat. Suggest that you take an air horn with you up to the flybridge if that is where you are cruising from.

Approved FIRST AID KITS are available in the cabinets under each of the head sinks. However, for most routine purposes, a more useful item is the HUMAN REPAIR KIT found under the aft stateroom head sink. It contains lots of bandages and other typical first aid needs.

Remember that your lifejackets are stowed under the seats on the flybridge. The adult jackets are on the starboard side and the children's are on the port side. A few life jackets should always be out and ready.

Fire Extinguishers

Old Soul has a modern fire suppression system consisting of four portable fire extinguishers and a large fixed-point engine room extinguisher. The portable extinguishers are in each stateroom and two in the salon. The extinguishers use Halotron 1 agent, a chemical that is not hazardous to humans. However, in connection with a fire, toxic by-products can be produced so you should avoid breathing any gases present and ventilate the area as soon as possible.

The large ENGINE ROOM EXTINGUISHER has an automatic activation system which discharges the agent when it senses a fire and electrically shuts down the engines. The controller for this Fireboy system is located just left of the salon helm (see photo to left). The toggle switch should be left in the NORMAL (green light) position.

If you have a fire in the engine room and the automatic system does NOT activate, you should manually trigger the system using the Fireboy handle just below the generator controls (see photo to right)**. In addition, turn off the engines immediately and prepare to get off the boat.**

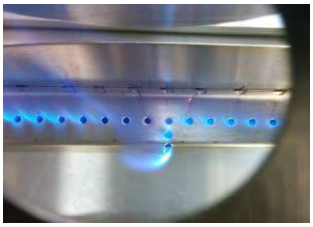
OTHER ITEMS

Barbeque

The Magma BARBEQUE is located at the starboard rail on the aft elevated deck.

Barbeque Checklist:

1. Remove blue cover (clip attached to shroud prevents cover from blowing overboard).
2. Attach a propane bottle to the regulator that protrudes from the BBQ. The bottle is in the sack behind the barbeque.
3. With the BBQ lid open, depress then rotate the regulator knob to MEDIUM.
4. Light the burner through the front Lighting Hole with a long-stem butane lighter (from Galley bottom drawer).
5. Check for good flame by looking through the Lighting Hole. Preheat with the lid closed for 5 to 10 minutes on MEDIUM.
6. After use, and adequate cooling, wipe out the interior of the BBQ with a paper towel to remove any grease.
7. Empty, clean and replace the removable drip tray under the BBQ.



Like any BBQ, the Magma can generate high heat, and can cook hot and fast, if the lid remains closed. Adjust the regulator and open or close the lid as desired.

Note: For safety reasons, do not store any propane bottle within the salon or engine compartment. They can leak slightly and propane gas could settle into low spaces. The flybridge Deck Box has ventilation holes in its bottom and is suitable for extra storage. Ensure gasoline and flammable materials are not stored near the barbecue.

Crabbing & Fishing

Always check the fishing and crabbing regulations before you leave for your cruise. You will need a license. Many areas are CLOSED to crabbing and fishing during certain months. Check http://wdfw.wa.gov/fishing/shellfish/crab/ on your smart phone.

CRAB AWAY FROM THE BOAT! Lines can get wrapped around props. Fish-flavored cat food, with the pop-up ringed lid, works well for a nice neat way to bait the trap. Measure the crabs using the CRAB MEASURING GAUGE normally located with the trap. Keep the male crabs of proper size (usually 6 ¼ inches across the carapace). Boil whole crabs about 12-15 minutes to cook. After use, wash crabbing / fishing equipment thoroughly with sea water and then fresh water (bucket in Lazarette). *Note: Please do not store any fishing or crab equipment inside the boat.*

Heating System

Old Soul is equipped with a 12-volt DC DIESEL FORCED-AIR FURNACE. The controller for this furnace is located under the stereo at the port side of the aft stairs. This furnace provides heat in the same way as a household furnace. To use, slide the switch to “Heat” and set the temperature desired, using the buttons to the right of the screen. The thermostat normally shows the current temperature. If you press one of the two buttons the display will temporarily switch to show the desired temperature.
WARNING: Before turning on the furnace check the Exhaust Port for obstructions. The furnace EXHAUST PORT is located outside on the hull port side amidships. Check for fenders or lines in the vicinity; heat from the furnace will damage fiberglass or rubber.

The furnace takes in cabin air from a vent under the dinette aft seats, and it expels warm air from vents in the forward stateroom, under the galley floor, at the salon port side step, and under the bottom step to the aft stateroom. Check that none of these vents are blocked.

Once the furnace is on, allow it to run for at least 15 minutes before turning it off. Shut it down by sliding the switch back to “Off”. (It usually will run for a few minutes more as it cools down.)

Flybridge Canvas CAUTION

Old Soul's full flybridge enclosure of canvas and isinglass (clear vinyl) is a comfortable place to view the sea and scenery even on a chilly day. In warm weather you can open some of the panels and take advantage of a fresh breeze. However, there are few important cautions:

DO NOT TOUCH or HANDLE the isinglass if you have sunscreen or other chemicals on your hands. This can leave a haze on the isinglass that will not wash off! *DO NOT **REMOVE** ANY PANELS! The structure is quite tight, especially when cold. Panels that are removed can be extraordinarily difficult to re-zip without damage or tearing, sometimes requiring the canvas maker to return to the boat for adjustment.*

The structure consists of 12 panels, 3 on each side; the center panel on each of the four sides can be rolled up (unzip only as far as necessary for rolling up). Additional panels can be partially unzipped as needed for greater ventilation. The forward center panel can also be tied back instead of rolled up, which is useful for taller people who wish to stand and steer with a clear view.

Bilge Pumps & Thru-Hull Locations

Old Soul is equipped with AUTOMATIC BILGE PUMPs that are directly connected to the battery. Manual activation switches (over-rides) are located near the center of the Main Electrical Panel. You may occasionally hear the pump operating on automatic cycles to eliminate condensation and water which accumulates in the bilge from the shaft seals.

An AUXILIARY HAND OPERATED BILGE PUMP is located in the port side of the flybridge console. This is used only in emergency situations. The forward seat of the dinghy also has a manual pump to be used to empty the dinghy of water as needed.

The Below-Waterline Thru Hulls are located as follows:

1. Engine intakes are under the floor in front of each engine.
2. Generator intake is under center board 11 near the aft end of the engine room.

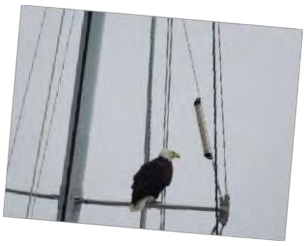
The Above-Waterline Thru-Hulls are:

Figure 1 Port Side Thru-Hulls

Figure 2 Starboard Side Thru-Hulls

APPENDICES

Tips and Idiosyncrasies



This section lists a few peculiarities of *Old Soul* that you may experience.

- The tachometers may bounce at times or go to zero.
- The start engine buttons on the flybridge are not connected.
- The heading line on the 4212 Chartplotters may be slightly off – it is impacted by the autopilot and is still being tuned.
- The second, smaller chartplotter on the flybridge can be used to get a second scaled view of the cruising area. It can be zoomed in to catch nearby shallow spots. It will not always precisely agree on depth and speed with the 4212 Chartplotter.
- The fixed VHF radios do not transmit GPS location or identity information at this time.
- The autopilot has a pump to drive the steering. When operating, the pump will cause the helm to make noises but the ship's wheel does not turn. This is normal.
- There is extra storage under the salon dinette seating and under the port V-berth bunk. We often use the salon storage for bins or bags of food.

- There are lights inside the Lazarette and rear closet of the aft stateroom. The Lazarette light is under the opening on the bulkhead; the closet light is left of the opening on the wall.
- Make sure you turn off the engine room lights breaker when leaving the engine room so that the lights are off – and avoid running the batteries down.
- If you hear footsteps on the swim platform at night, it's probably just the otters.

Cold Engine Start

The Ford Lehman engines have a "trick" to make them easy to start when cold (only required when engines have not run for several days). The "trick" is:

1. Push both throttles to full throttle prior to doing your "WOBBS" check.
2. While in engine room push in the "cold start button" behind each throttle arm (yellow button in photo). *Old Soul's* engines do not have glow plugs but this button makes the fuel pump run at full capacity, which dramatically aids engine start.
3. As normal, turn the ignition key clockwise to the ON position. BE READY to throttle back quickly from the full forward position as the engine "catches". Press the start button until you hear the engine catch; throttle back immediately to lower RPM!
4. Complete the normal checklist; warm the engines for at least 10 minutes.

ROBSHIP Hook & Moor

There is a mechanically clever **ROBSHIP Hook & Moor** pole on the wall in *Old Soul's* salon. The Hook & Moor boat hook helps thread lines through hard-to-reach mooring balls and post rings. It allows the use of the boat's own mooring line for direct one step tie-ups without using a messenger or guide-line. It can be "pulled" or "pushed" (see below). It also works as a regular boat hook when the hook's head is in the locked position.

The benefit of the Hook & Moor is that it pulls a dock line through a mooring ball ring and back onto the boat in one motion without having to lift the ring. Just place the eye (or an extended tail) of a dock line in the carabiner of the Hook & Moor, reach down and pull the hook right through the mooring ring (or a cleat) and bring the dock line back towards the boat to secure the line at the boat's cleat. There's a video of this at http://www.hookandmoor.com/video.

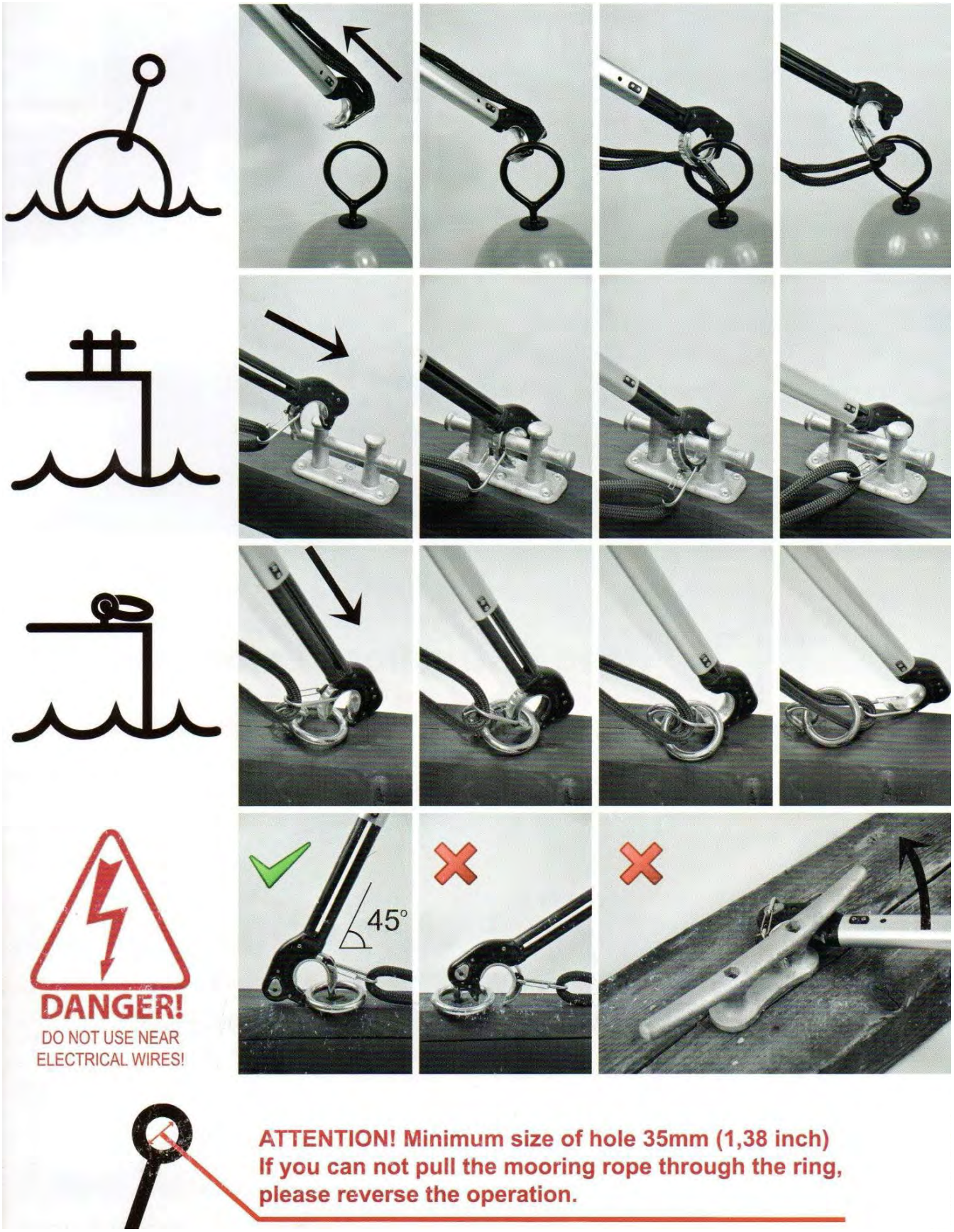


Step by step:

1. Release carabiner.
2. Place eye (or an extended tail) of dock line in the carabiner. The quick release Carabiner quick gate opens out. The function is to prevent the carabiner pole from accidently hooking on to a mooring ring.
3. Choose push or pull operation according to mooring situation. (For push, extend the head from the shaft.) Carabiner must always point in opposite direction from hook mooring movement. Use the dock line to control this.
4. When operation is completed pull out the mooring line from the carabiner and secure the line's eye (or extended tail) on *Old Soul's* own cleat (through the hawse pipe).
5. If operation fails, try to reverse. If it still hasn't been released, simply drop the hookinto the water. The hook floats, so you can retrieve it when the situation is safe.

Prepared for a pulling operation

Prepared for a pushing operation (note that the head has been extended from the shaft)



ROBSHIP Hook & Moor

Making the Salon Bed

The bed in the salon is made as follows:

1. Starting at table.

2. View from below.

3. If up correctly, see black marks.

4. Loosen the two knobs on pedestal under table and lower the table – do not let it slam down. (I find it easiest to lie on the floor face up under the table, and use my flat palms to raise or lower the table.)

5. View from below after table is lowered.

6. Open extensions (table will feel crooked at this point).

7. Get Salon Bed Support out of closet in Master Stateroom.

8. Lay supporter next to table as shown.

9. Open “Legs” of supporter.

10. Stand supporter upright; lift table enough to slide supporter underneath.

11. Attach hook under aft end of supporter to settee frame.

12. Attach other hook further forward to table.

13. View from below after attached.

14. View from above.

15. The cushions can be found under the flybridge console in two large black plastic bags. Place the cushions on top of the table.

PRESTO! You now have a secure double bed. If you intend to use this every night you may want to just keep the cushions in the Master Stateroom during the day.

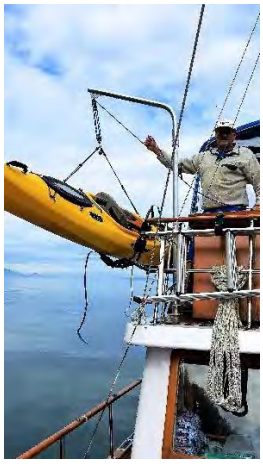
Raising & Lowering the Kayaks / SUP

Each kayak can be lowered or raised using the aluminum davits fixed to the upper deck and rails. These davits can be swung in for travel or swung out for use (see davit base and pin).

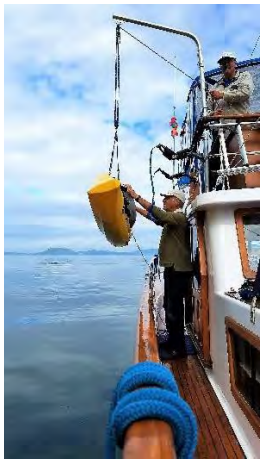
The procedure is fairly self-evident. It works best with two people – one to lower (or raise) the kayak using the rope and pulleys – the other below holding the kayak painter line and keeping the kayak from banging into the side of *Old Soul*. Try to keep all the lines untangled and the pulleys untwisted. When at the water, drag the kayak aft alongside the swim platform, using the painter line, for more convenient unhooking (or re-hooking).

Stow the kayaks with the seat folded down, the kayak bow towards the bow of *Old Soul*, and the side drain plug downward.

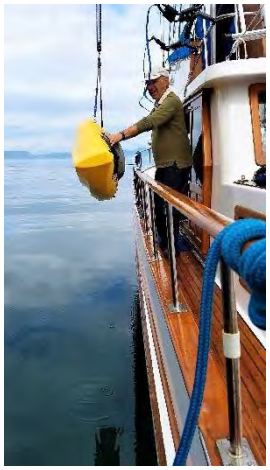
Ready….



Down 1

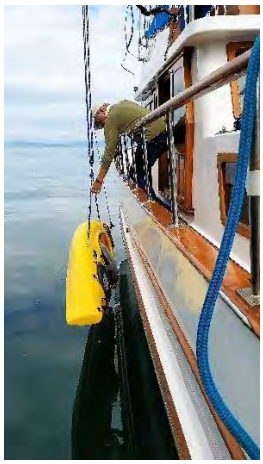


Down 2



Down 3

Down 4



Down 5

In the water

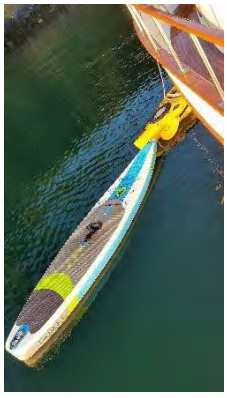
Alongside the boat

Unhooked & off!

The **Stand-Up Paddleboard (SUP)** is even easier to launch and retrieve. It's not heavy – you can just lift it and throw into the water (while holding the blue and white painter line!). It's easiest to do this by swinging the aft end of the paddleboard up out of the rack first, then the forward end. Reverse this to put it back into its rack.

From Outside

From Inside



Closer. (Lower the front tip end into the rack first.)