

Owners' Notes

Sea Otter

1997 ISLAND PACKET 37

(Updated May 30, 2016)

L.O.A. 38' 5"	Displacement 18,500 lbs.
L.W.L. 31' 0"	Ballast 8,200 lbs
Beam 12' 2"	Draft 4' 6"
Mast Clearance 49' 6"	Sail Area 800 sq. ft (100%)
Water Tank 90 gal	Auxiliary Engine: Yanmar 38 HP Diesel
Fuel Tank 50 gal	Cruising RPM 2200 RPM; consumption is 3/4 gph

Table of Contents:

	Page
Contents	
1. SAILS and RIGGING	2
2. ANCHORING.....	4
3. ENGINE.....	5
4. ELECTRICAL SYSTEMS.....	8
5. INSTRUMENTS	10
6. GALLEY	11
7. HEAD	12
8. HEATER	14
9. DINGHY	14
10. MISCELLANEOUS.....	14
11. UPON RETURNING TO BELLINGHAM.....	15

1. SAILS and RIGGING

•Sea Otter is cutter rigged and may be sailed with a variety of sail combinations to suit weather conditions. The staysail provides added sail area (about 25% more) plus versatility. Light air sailing is improved using the main and double headsails, plus a variety of reduced sail area combinations are possible in stronger winds: e.g. main & jib; main & staysail; reefed main & staysail, etc.

MAINSAIL

•The fully battened main (new in 2010) has two reef points, lazy jacks, and jiffy reefing with two reefing lines led aft to the cockpit. Be sure there is adequate slack in the reefing lines and main sheet when hoisting the main. Also, make sure the boom vang is not too tight when raising the main.

•Out haul line for the main is cleated on the port side of boom. Set it normally at the spar manufacturer's label; at the front of the label, if you want more shape in the main; toward the rear of the label, if you want flat sail.

•Topping lift attached to the aft end of the boom is cleated on the starboard side of the boom.

•The main has a dual line "jiffy" reefing system that allows one person to quickly reef while remaining in the cockpit. One line reefs down to the first set of reef points; the second line reefs down to the second set.

•Don't tighten up the loose reefing lines in the cockpit when the main is lowered and on the boom. Instead, wrap the line dangling from aft end of the boom in the mainsail flakes on the boom; the main will be much easier to hoist the next time out. Also, once the main is down and tied on to the boom with several sail-ties, if you loosen the lazy jacks lines at the cleats on both sides of the mast, pull them forward and attach them to the two short bungies on the mast, and then re-cleat the lines, it will be much easier to put sail cover on over the sail on the boom. (While underway we keep the mainsail cover down in the aft stateroom.)

STAYSAIL

•The staysail is self-tending and roller furling. The staysail furling lines are on the port side, outside the cockpit combing. To unfurl the staysail, pull out the outhaul line which will run the sail out to the end of the staysail boom. Cleat this line off. As you pull out the clew line, keep some light pressure on the roller furling line to prevent a "rat's nest" in the furling drum. When you furl in the staysail, never use a winch on the furling line as it will damage the furler.

•The staysail boom is controlled by a single sheet that runs to the small winch on the port side cabin top. The staysail will self tack as you come about. The sheet will act to control the tension on the boom and sail shape.

HEADSAIL/JIB

•The roller furling line for the headsail runs down the starboard side to a cleat near the stern. Keep light pressure on furling line as it unwinds. The roller furling headsail can be adjusted/reefed for the wind conditions using the roller furler.

Sail control lines:

- | | |
|------------------------------|--------------------------------|
| • Green/White Fleck — | <u>main halyard</u> |
| • White/Green Fleck — | <u>main sheet</u> (in cockpit) |
| • White/Blue Fleck | <u>jib sheets</u> |
| • Red/Green — | <u>reefing lines</u> |
| • Solid White | <u>traveler control</u> |

- | | |
|----------------------------|---|
| • Solid Blue | <u>staysail halyard</u> |
| • White/Blue Fleck | <u>staysail sheet</u> |
| • White/Black Fleck | <u>jib & staysail furling lines</u> |

Suggestions/Reminders:

- Turn into the wind to raise sails or to “reef.”
- Best order to raise sails is: Main first, then staysail, and jib last.
- While underway, close the deck hatches and portholes if there is going to be any spray.
- Consider shortening sail from 15 knots of wind up.
 - 1st adjustment, reef main to first set of reef points;
 - 2nd, roller reef jib;
 - 3rd, furl up staysail; and
 - 4th, fully furl jib or reef main to second set of reef points. .
- The clutches for each line are released by rotating the brake lever “fully” forward, not just partway.
- Winch handles are stored in the cockpit combing lockers with teak lids.
- If motoring in light winds may want to put the main; will stabilize the boat and improve mileage.

2. ANCHORING

- Sea Otter's primary anchor is a 45 lb. CQR with 200 ft. of 5/16" chain and 250 feet of 5/8 inch nylon rode.
- The second bow anchor is a 44 lb. Claw/Bruce with 40 ft. of 5/16" chain and 300 ft. of 5/8 inch nylon rode.
- There is a Fortress FX-17 stern anchor in the starboard lazarette with 40 feet of 5/16 inch chain and 250 feet of ½ inch rode.

LOWERING ANCHOR: Start the engine. **Do not run the windlass without the engine running.** Turn on the power to windlass using breaker switch located in the cabin under companion way stairs. Flip up the cam brake on the chain, just ahead of the windless (use attached line to temporarily hold the cam "up" away from the chain by tying the line to safety line.) Depress the "DOWN" footswitch for the windlass on the bow deck and let out the desired amount of anchor chain. Stop the windlass, reattach the anchor bridle over the bow sprit to the chain and secure it to the forward cleats on both sides of the bow, and then release the chain tension on the windlass by a tap on the "DOWN" footswitch. Flip the cam break back on the chain.

RAISING ANCHOR: Start the engine. **Do not run the windlass without the engine running.** Turn on power to the windlass at the breaker switch under the companion way stairs in the cabin. Take off the anchor bridle by taking in a little chain. Move the boat forward very slowly, taking up chain as you go by pressing the "UP" footswitch in short spurts. As the anchor nears the anchor roller, use short toe taps on the footswitch to finish bringing the anchor on the roller. Put the rubber caps down on the footswitch when done.

Suggestions/Reminders:

- Anchor and rode should be cleaned of mud and kelp as they are brought aboard using the bow saltwater hose & nozzle (turn pump on/off using switch on electric panel in salon, the seacock for the anchor washdown water inlet is located under the floorboard outside of the head in the main salon).
- NEVER OVER TENSION THE CHAIN WITH THE WINDLASS. The windlass is extremely powerful and damage could occur.
- Turn off the windlass power switch in the cabin when finished lowering or raising the anchor.
- During raising anchor, best to have someone checking inside the chain locker (looking in with a flashlight through the door in the v-berth) to make sure the chain is not stacking up on the incline panel or going over onto the wrong side of the anchor.
- If the second bow anchor is used, when raising it the nylon rode needs to be wrapped 2 or 3 times around the smooth upper portion of the windlass post. (You will switch to the lower portion of the windlass post when you get to the chain portion of the anchor rode. Cleat off end of chain portion using the anchor bridle to get the necessary slack in the nylon rode to wind it off the post.)

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NOTE: When raising the anchor, not infrequently the chain piles up inside the chain locker, backing up the chain in the deck chainpipe, and jamming the windlass. If this occurs, you'll need to have a crewmember access the chain locker through the door in the V-Berth and unpile the chain using the boat hook. [Sorry for the inconvenience. We are working to remedy this problem.]

3. ENGINE

Sea Otter has a 38 horsepower 3 cylinders fresh water cooled Yanmar diesel engine (Model 3JH2E). The combination shift lever and throttle are located on the steering pedestal, The control panel for engine gauges and alarms is located on the starboard side of the cockpit. The ignition switch and kill pull knob are located on the engine control panel. The engine will push Sea Otter along at 6.2 knots at 2200 rpms. Using higher throttle settings will produce very little increase in forward speed but will greatly increase fuel and oil consumption. For this reason, we ask that you limit the use of higher power settings to real emergency situations. **Use 2000 to 2400 rpms for normal cruising.** Fuel consumption at 2200 rpm is approx. 3/4 gal/hr.

ENGINE CHECKS AT THE START OF EACH DAY

- **Check the engine oil level.** The oil dipstick is on the starboard side of the engine. Access is through the engine door in the galley. Oil levels anywhere between the high and low marks are acceptable. If need to add oil, do NOT over fill. Spare oil kept onboard and should be located during your onboard orientation. (Spare oil is on the storage compartment the behind the aft cushion on starboard side of settee in the salon.)
- **Check the sea water strainer** located under the inboard cushion of the berth in the aft stateroom. Use the following sequence of steps:
 - a) Close the seacock for raw water intake in the bilge under the sole access panel in the galley (placing the handle in perpendicular position relative to the water flow is the closed position);
 - b) Unscrew the clamps and rotate aside the bronze lid on the strainer located amidships under the berth in the aft stateroom;
 - c). Pull out the strainer and remove any eel grass etc.;
 - d) Replace and reseal the strainer;
 - e) Reseat and clamp down lid on strainer;
 - f) Reopen seacock under galley sole;
 - g) Check to make sure bronze lid on strainer is not leaking sea water.

STARTING

1. Make sure Battery Switch under step into cabin is set to position ON (1).
2. Place the shift/throttle lever in a vertical neutral position. Press in the red button on the end of the shift/throttle lever hub and push the throttle forward a few inches. This will open the throttle while keeping the engine in neutral. **The starter will not engage if the shift lever is not in the neutral with the button pushed in.**
3. Turn engine key clockwise. The engine oil alarm should make piercing sound. Continue to turn the key clockwise to engage the starter. Crank the engine until it starts. Release the key as soon as the engine starts. No glow plug warm-up is needed.
4. Never crank the engine for more than 30 seconds. This would pull water into the engine through the exhaust system and damage the engine. If the engine doesn't start within 30 seconds, wait for a minute for the water to drain from the exhaust system and try again with increased throttle.
5. Run the engine at 1000 rpm for 5 minutes to warm; then return to idle.
6. Always check for engine cooling water coming out of the exhaust. If there is no water, turn off the engine, check the raw water intake seacock and sea water strainer (close seacock and check strainer basket for eel-grass). If necessary, check engine water pump V-belt, cooling hoses, and as a last resort, the raw water impeller.
7. Whenever the engine is started, run it for 15 minutes before turning off as it must be hot enough to evaporate any water remaining in cylinders.

8. Leave engine start key “on” whenever the engine is running. NEVER turn to “OFF” with the engine running as it may blow the diodes on the alternator and it will cease to charge batteries.

NOTE: If for any reason the key ignition in the cockpit does not engage the starter, there is a back-up starter button just inside the engine compartment door in the aft stateroom. After making sure the shift lever is in neutral, go to the engine compartment and start the engine using the back-up start button.

SHIFTING

ALL SHIFTING SHOULD BE DONE AT IDLE SPEED. Shifting at higher speeds may damage the transmission. Shift the lever smartly from neutral to forward or reverse.

STOPPING

To stop the engine pull the round **Black Stop Knob** located on the forward side of the engine control panel in the cockpit. This cuts off the fuel supply to the engine. Alarm will sound. After alarm sounds, and only after it does, turnkey off. (**NEVER turn the running engine off with the key** as it may blow the diodes on the alternator.)

FUELING

The fuel tank holds 50 gallons of diesel fuel. The tank should be kept as close to full as possible to prevent water from collecting due to condensation. Use the fuel gauge located at the chart table to check fuel tank level. Diesel fuel fill fitting is on starboard deck amidships (screw on cap marked “DIESEL”; (tool to unscrew cap is in chart table). Refill the fuel tank upon returning to Bellingham. When fueling, ALWAYS keep an absorbent pad or several paper towels near the fuel nozzle to catch any diesel. **Do not over fill! When you hear fuel coming up inside the fill tube stop filling – before it foams up and out !!**

ENGINE OVERHEATING **Overheating will seriously damage the engine.**

1. Normal operating temperature for engine is about 190 degs. -- Keep an eye on the temperature guage on the engine control panel --
2. Overheating may be preceded by black smoke issuing from the exhaust.
3. **IF ENGINE OVERHEATS, IMMEDIATELY SHUT DOWN THE ENGINE !!**
4. The most likely cause of engine overheat is plugging of the raw water filter with seaweed. Check the raw water filter located under the aft berth. To clean the filter, close the raw water through-hull valve. (As with all through-hull valves, placing the handle in perpendicular position relative to the water flow is the closed position). Unscrew the filter top, lift out and clean the filter.
5. After clearing any obstructions, it is very important that the lid to the filter is properly seated so that there is no air leak. Otherwise the water pump will suck air from the filter rather than raw water for cooling. Adjust the gasket on the filter element if necessary for proper seating.
6. Tighten the filter assembly to obtain an even seal. Reopen the seacock and watch for leaks.
7. Check the coolant level (in the plastic overflow tank with the engine off). Add made-up fresh water and coolant if necessary.
8. Check the belt to the water pump.

OIL PRESSURE FAILURE

1. If the oil pressure light comes on, or the gauge shows a drop in oil pressure, **IMMEDIATELY SHUT DOWN THE ENGINE !!**
2. Check the oil level. Add oil if necessary.
3. If the engine oil is not low, do not restart. Contact San Juan Sailing or other personnel listed on the emergency contact list included in the SJS Charter Guest Reference Manual binder.

Suggestions/Reminders:

- Keep Battery Switch in “ON” (1) position.
- Check engine oil level and make sure “raw water” seacock is open before starting engine.
- Gear shift/throttle lever must be in neutral to start engine.
- It’s ok to use some extra throttle when docking especially with wind; although Sea Otter is heavy, good throttle power can stop it fairly quickly. (Engine can run up to 3000 RPM.)
- Running at 3000 rpm for 10-15 minutes every other day is “good” for cleaning the injectors—but not essential.
- Monitor temperature gauge for overheating (should be around 190 deg.).
- Monitor oil pressure gauge.
- Never turn battery switch to “OFF” or the ignition key to off when the engine is running.

4. ELECTRICAL SYSTEMS

AC 110 VOLT SYSTEM

The procedure to **HOOK UP** to shore power is:

- Turn off “MAIN 30 AMP” breaker on board (located on the AC panel above the chart table)
- Turn off breaker at dock outlet.
- Connect the female plug of the orange power cord to the boat first (outlet socket located on the port side of the cockpit combing). [Note: power cord is stored in starboard lazarette, usually in a yellow satchel)
- Connect the male plug of the power cord to the dock outlet.
- Turn the breaker on for the dock outlet.
- Turn on the “MAIN 30 AMP” breaker at the chart table AC panel.
- Ensure that the “BATTERY CHARGER” breaker is on (this breaker should always be on).
- The system will take about 30 seconds to cycle up. Then check the Magnum Energy power management panel display to ensure it indicates you are charging the batteries (bulk, absorb or float). The panel is located inside the cabinet just forward of the VHF radio (see photo below).

The procedure to **DISCONNECT** from shore power is as follows:

- Turn off “MAIN 30 AMP” breaker on AC panel above the chart table.
- Turn off breaker at dock outlet.
- Disconnect the orange power cord from both the orange socket on the boat and from the dock outlet.
- Roll up and store power cord back in starboard lazarette.



DC 12 VOLT SYSTEM

The battery system is divided into two “banks”. One bank is the “Start Battery” for the engine (one Group 27 battery). The other bank is the “House Bank” (three 8D batteries). The Start Battery is used to start the engine and run the

windlass. The House Bank runs everything else. The Battery Switch, which is a modern “Combiner” switch, is located on the bulkhead under the companionway steps. The Battery Switch has 2 separate sets of contacts to turn on but isolate the Start Battery and the House Bank batteries. The Battery Switch should always be kept in the ON (1) position. Only if the Start Battery goes bad should you have to turn the Battery Switch to the COMBINED position to start the engine; then put the Battery Switch back in the ON (1) position. NEVER switch the Battery Switch through OFF with the engine running, as it will blow the diodes and the alternator will stop charging.

All of the batteries are AGM. The House Bank (Bank #2) consists of three 8D batteries (new in 2011) – each with a rated capacity of 260 amp hours; and the Start Bank (Bank #1) is one Group 27 battery (new in 2008) with a rated capacity of 100 amp hours. The Group 27 Start battery and one of the House Bank 8D batteries are located under the aft berth amidships and behind the engine. A second House Bank 8D battery is located under the chart table seat. The third 8D battery under the starboard settee in the main cabin and back under the galley sink. The charging output of the alternator goes directly to the House Bank 8D behind the engine and is protected by a 130 amp fuse that sits on top of that battery. The charging output of the inverter/charger goes to the power post and is protected by a 200 amp fuse. That fuse is mounted in the next locker outboard of the batteries in the aft cabin. When the Battery Switch is in the normal On (1) position, and you are charging and the voltage of the House Bank goes above 13.1 volts, a battery combiner closes and the system also charges the Start Battery. When the system not charging and the voltage of the House Bank drops below 12.8 volts, the battery combiner opens and the battery banks are isolated. The combiner is mounted next to the Start Battery under the bunk in the aft cabin.

BATTERY MONITORING

Sea Otter has 2 battery monitors in the salon. There is a Balmar Smartgauge at the top of the companionway stairs next to the battery selector switch and a Xantrex LinkLite display at the nav station. ONLY USE THE BALMAR – IT IS THE MOST ACCURATE. To use the Balmar, press the left hand button to see the Start Battery voltage, middle button shows the House Battery % charged and the right button shows the House Battery voltage.

Watch that the voltage reading for both battery banks doesn't drop below 11 volts; normally, when not charging, the voltage reading for each bank should be 12 volts or higher. When underway and charging the voltage reading should show 12.5 to 13 volts.

5. INSTRUMENTS

GPS, ELETRONIC INSTRUMENTS AND CHART PLOTTER

At the sub panel to the right of the main AC/DC panel at the nav station, turn on the AutoPilot, Nav Instruments, Radar and VHF breakers. Make sure the MicroLogic GPS unit at the nav station next to the VHF radio is turned on (the MicroLogic unit sends the boat's position information to the chart plotter at the helm).

For more instructions regarding the GPS, the DEPTH meter, KNOT meter, WIND meter, electronic Chart Plotter and AutoPilot, please refer to the user manuals. All of the manuals for Sea Otter's equipment are kept in a blue Island Packet satchel located in the cupboard on the port side of the main cabin, just aft of the chart table.

The alarm feature of the depth meter can be very helpful. The depth alarm is set at the depth instrument.

Note: If locked out of Depth/Knot/Wind instruments is, the code for 1234.

Using the buttons on combined instrument Autohelm readout at the Chart Table, Push LOG initially. Push WIND for "1", enter by pushing LOG; Push WIND for "2". enter by pushing LOG; same for "3" and "4". Do final enter by pushing LOG twice.

RADIO (VHF)

Sea Otter is equipped with a marine VHF radio transmitter. This radio can be a valuable source of information such as weather and tides and in an emergency it is a vital source of assistance.. Channel 16 is the distress, safety, and calling frequency and should be monitored whenever the radio is on and not in use on another channel. This will allow you to hear emergency weather bulletins or calls to you from San Juan Sailing or other boats and any distress calls where you might be able to assist.

TRADITIONAL NAVIGATION TOOLS AND CHARTS

The cruising guide books, tide tables, Washburn's tables and current atlas are kept on the bookshelves. The dividers and parallel ruler are kept in the chart table. Charts are located in the chart drawer beneath the starboard salon settee and also in a clear plastic storage tube bungied to the ceiling in the forward stateroom.

6. GALLEY

STOVE

The galley has a three burner gimbaled propane stove with oven. It is fueled from a propane tank located in a locker on the starboard side deck. The manual valve on the top of the tank should be kept closed whenever the stove is not in use. There is also a solenoid operated electric valve that must be operated by a switch on the electrical panel at the chart table in order to get the propane to the stove.

Propane is heavier than air so the gas will collect in the bilge, therefore a certain amount of caution is required. A full tank of propane normally lasts a little more than two weeks.

Please follow these procedures:

1. Make sure that the controls on the stove are in the OFF position.
2. Turn the PROPANE circuit breaker to the ON position. The red indicator light should come on to confirm that the solenoid valve at the tank opened properly. If no light is seen, check to see that the battery master switch is ON.
3. Once you have the red light, push the knob in and turn to the light position. Twist the ignition button while continuing to hold the control valve in for 20 seconds or the thermocouple safety valve will shut the burner off.
4. Turn on the gas and pop the ignition button. If it does not light in 4 or 5 tries, turn off the gas and wait. Try again after a few minutes. If you have followed all the procedures and the oven still will not light, you may have exhausted the propane supply.
5. Check the oven periodically to assure that it remains burning. Be sure that you turn OFF the PROPANE circuit breaker when you have finished with the stove. For greater safety, close the hand valve on the main propane tank before retiring and at the end of the cruise.
6. For cooking underway, the stove is gimbaled. Unlatch the forward base of the stove

DOMESTIC WATER

The potable water tank has a capacity of 90 gallons and is filled through a fitting on the starboard deck amidships.

HOT WATER

Hot water can be generated by 3 means. When the engine is running under load, the engine cooling system will heat the water in the hot water tank. When at dockside, the 110 volt power system can be used by turning on the switch marked "Hot Water" on the AC breaker panel. And you can also heat water on the stove.

REFRIGERATOR and FREEZER

The refrigerator can be drained using the pull switch just above the counter on the aft wall of the galley. It is necessary to first turn ON breaker switch labeled "shower pump" on the DC breaker panel. The freezer is a separate compartment under the refrigerator floor.. The refrigerator thermostat is located in the top left corner of the fridge. It should be set and left at "3"; higher than that will freeze you mild and vegetables. The (ON) switch for the freezer is in the large starboard cockpit lazarette. To get to the freezer (ON) switch you will need to get down inside the lazarette.

BARBEQUE

The stainless steel propane barbecue sits on the port stern rail. The barbecue is permanently connected to the propane tank (you'll note two propane tanks in the starboard propane locker). If you should run out of propane simply connect the hose to the spare. (Check if threads are left hand or right hand and use one of the adjustable wrenches for a "snug only" connection!) Note the T fitting on the propane tank, enabling propane to feed the BBQ and stove simultaneously. Please remember to turn off the valve at the BBQ after use and the valve at the tank as well (as an extra precaution). Also remember the propane will not work unless the Propane Breaker is on at the 12V electrical panel (same is true for the stove / oven) so make sure it's on for use and off after use. And so, as a courtesy to the

next guest, please clean the BBQ after use. You will find a wire brush for this located in the BBQ. Best I've found is a good salt water wipe down and the burn with the BBQ empty to cook off the residue; try it. Please be careful about drips etc. and make sure to clean up anything on the fiberglass or teak. Thank you.

7. HEAD

The head contains a vanity with sink, a showerhead, and a marine toilet with hand operated pump for flushing.

TOILET

The toilet is easily plugged by 2-ply tissue, Kleenex, hair, tampons, or paper towels. The person who plugs a head is responsible for unplugging it. Flush only waste and marine toilet paper through the toilet.

HOLDING TANK

The holding tank has a capacity of 14 gallons and needs to be emptied frequently. For estimating purposes, approximately 1 gallon is added to the holding tank per use. The holding tank has a sensor which triggers a red indicator light in the head when the tank is close to full and requires emptying. Over-filling the holding tank will force sewage into the vent line. Once the vent line is plugged the entire system functions poorly if at all. The holding tank should be emptied on a regular basis by going to a pump out station several times a week and following the directions found at the pump out station. The waste pump out deck fitting is located on the port side deck. The holding tank may also be emptied overboard with the Guzzler hand pump located under the port side settee in the main salon. See procedures below.

CONTROLLING DISCHARGE CONFIGURATIONS

The toilet and the holding tank both have two options for discharge. The toilet can be pumped directly to the holding tank (normal setup, required in US waters <3 miles from shore) or directly overboard. The holding tank can be pumped out via the deck fitting at a pump out facility (or dock cart) or can be manually pumped directly overboard (not legal in US waters <3 miles from shore).

There are 3 Y-valves and one seacock that control the flow of waste from the toilet or tank. They are all located under the port settee in the main salon (see photos below). The functions are as follows:

Aft gray plastic Y-valve (tucked up under the fiberglass) – Directs toilet discharge to tank or overboard (see flow arrows on valve handle).

Forward gray plastic Y-valve (tucked up under the fiberglass) – Directs tank discharge to deck fitting or overboard via the manual pump (see flow arrows on valve handle).

Brass bent yellow handle Y-valve – Directs overboard discharge from the toilet or the tank to the seacock.

Brass yellow handle seacock – Opens or closes the overboard discharge from the toilet or the tank.

Following are the valve settings for each discharge option. The hoses are well labeled with black sharpie. Refer to photos below.

1. Toilet to Tank – Aft Y-valve directed to tank, brass yellow handle seacock closed.
2. Toilet to Overboard – Aft Y-valve directed to overboard, brass bent yellow handle Y-valve directed from toilet to seacock, (the flow arrows are hidden under the bent handle), seacock open.
3. Tank to Deck Fitting – Forward Y-valve directed to deck fitting, seacock closed.
4. Tank to Overboard – Forward Y-valve directed to overboard, brass bent yellow handle Y-valve directed from tank to seacock (the flow arrows are hidden under the bent handle), seacock open.



Toilet to Tank or Overboard (Aft Y-Valve) Tank to Deck Fitting or Overboard (Forward Y-Valve)



Tank to Overboard (Bent Handle Y-Valve and Seacock)

SHOWER

Turn the circuit breaker switch labeled WATER PRESSURE to the ON position. (Note: The cockpit shower faucet also requires the water pressure to be on.) If no water comes out of the shower, check the valve between the faucet controls and the valve at the shower head.

The shower empties into a sump under the shower floor and is emptied by a sump pump. Turn this pump on at the electrical panel and activate the pump pull out switch in the shower to empty the sump as you use it.

Always use the shower curtain to prevent water from getting into the main cabin and to minimize cleanup. Wipe the walls down after the shower to prevent mildew.

8. HEATER

The Espar diesel-fired cabin heater is controlled by a small black thermostat located on the port side of the salon at the forward end of the large cabinet next to the nav station. Press the ON/OFF (I/O) rocker switch to "I" and rotate the thermostat dial to desired heat level (recommend half way to start). The outlet fans in each cabin will turn on right away then the furnace will go through its startup process. Should start to feel heat from the outlets in 2-3 minutes. You can heat up the salon area faster by closing the outlet louvers in the two staterooms. To shut down the heater, press the "I/O" rocker switch to "O".

The heater uses considerable battery power when running so to conserve the batteries when not on shore power we will use the heater only in the evening and morning to take the chill off and leave the heater off overnight while we're sleeping.

9. DINGHY

The ten foot inflatable Avon dinghy is equipped with a pair of oars and both a foot operated and a hand operated inflation pump.(The pumps and a dinghy patch kit are stored in the middle storage compartment under the starboard settee in the main cabin.) There is also a small outboard motor for the dinghy, which when not in use should be stored on the mount on the transom railing. Use the small padlock (combination 430) to lock the motor onto the mount.

Suggestions/Reminders:

- The red plastic safety clip must be on the stop button for the ignition to be turned and the engine to start.
- Assign one of your crew "dinghy duty" upon entering a harbor to anchor or a marina to dock. Their job is to shorten the dinghy painter to bring the dinghy close to the transom. This will assure the painter does not get wrapped around the prop shaft. (The dinghy painter is floating line so that will help too.)
- Coming to shore in the dinghy, avoid sharp rocks and barnacles that could cause damage.
- If you beach the dinghy consider the tide direction. (Tie to a tree or rock if the tide is coming in.) If you need line for a longer painter to tie up on a beach, there are additional three strand rope lines in the small blue canvas bags in the large cockpit lazarette.

10. MISCELLANEOUS

GOING ASHORE

Companionway entrance boards are stored in a teak box mounted on the bulkhead under the chart table.

- The brass companionway pad lock [Combination 4300]. Is either in the chart table or on the shelf above the chart table.

BILGE PUMPS

Sea Otter is equipped with an automatic bilge pump. The master switch is located on the DC electrical panel above the chart table. There is a second switch for the bilge pump on the bulkhead behind the companionway stairs. Both

switches should be kept on. The switch behind the stairs should be left in the AUTO position. You may occasionally hear the pump operate due to condensation and water from the shaft log accumulating in the bilge. If you hear the bilge pump running a lot, you need to check the bilge for leaks. One source to check is the lid on the seagrass trap for the sea water engine cooling water, located under the bed in the aft stateroom. It can leak if not seated properly. An auxiliary hand-operated bilge pump is manned from the cockpit on the starboard side near the wheel. It is generally used only in emergency conditions. The handle for the hand operated bilge pump is in the small port lazarette.

THROUGH HULL SEA COCKS AND FREQUENTLY ACCESSED VALVES

Refer to the separate diagram placed in front of this document and on the back cover of the Charter Guest Reference Manual binder (located on board) for below waterline through-hull and frequently accessed valve locations. An appropriately sized wooden plug is tied to each. Seacocks are open when their handles are “in line” with plumbing (typically vertical) and closed when perpendicular to plumbing (typically horizontal). All seacocks (except as noted herein) are normally left open while cruising. Please leave all open when returning the boat, except forward seacock for anchor wash station should be closed.

STEERING GEAR FAILURE

In the event of steering gear failure, remove the round cover located on the helmsman seat in the cockpit. Insert the emergency tiller, which is stowed on a hanger in the starboard lazarette

FIRST AID KIT

The ship’s first aid kit is located behind the settee cushions on the port side of the salon. . Please notify San Juan Sailing of any items used from this kit during your trip so they may be replaced.

FIRE EXTINGUISHERS

There are three hand-held fire extinguishers. One is mounted on the bulkhead on the port side of the companionway stairs, one under port side of the forward berth and one in the small port side lazarette in the cockpit. Use the large fire-extinguisher next to the companionway stairs for a fire in the engine compartment – the chemical in this extinguisher is designed for engine room fires and will also do less damage to the engine.

FLARES

The emergency flares are in the port side salon cabinet or behind the port side settee cushion.

LIFE JACKETS

Personal flotation devices (PFD - life jackets) are stored in a yellow bag in the aft stateroom or in the large cockpit lazarette.

11. UPON RETURNING TO BELLINGHAM

- Tie all halyards clear of the mast, taking them to the rails. This avoids the halyards banging against the mast when the wind is blowing.
- Leave the bilge pump switch in the “AUTO” position.
- Connect to shore power following the procedure in Section 4 of this document. Check the Magnum Energy power management panel display to ensure it indicates you are charging the batteries (bulk, absorb or float).
- Leave refrigerator and freezer circuit breakers on the DC panel “ON” so they remain cold to prevent mold.