

OPERATIONS MANUAL

SECOND PASSAGE

Welcome aboard!

We are happy you have chosen Second Passage for your vacation. She is comfortable, efficient and easy to sail, with roller furling main and jib. She has been outfitted to ensure you have a true Northwest Sailing experience.

We hope this manual will help you become familiar with the boat. Please remember this is a non-smoking vessel. Always smoke outside. If you have questions about the boat or about places to visit, please do not hesitate to ask the AYC staff.

We are sure you will enjoy cruising the lovely islands of the Pacific Northwest.

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BOAT OPERATION

Engine Inspection

Remember your “**WOBBS**” every morning: **W**ater (Coolant), **O**il, **B**ilges (Inspect and Pump-out), **B**elts and **S**ea Strainer.

Check the level of COOLANT in the expansion tank. The expansion tank is located in the starboard locker in the aft of the cockpit. (INSERT Picture) Engine coolant is a mixture of 50% antifreeze and water. Check the level of OIL in each engine with the dipstick located (INSERT Picture). A pair of etch marks on each dipstick indicates the proper oil level. Do not overfill! Make sure the dipstick is firmly replaced or it will leak oil throughout the engine compartment! Check the oil with a paper towel or a rag, never the dish towel! Check the general condition of the BELTS, HOSES, and FUEL LINES.

Ensure the valve on each RAW WATER THRU-HULL is in the ‘open’ position (lever in-line with valve). Your thru-hull and strainer are located in the main salon just in front of the companionway steps. (INSERT Picture)

Observe the glass of each RAW WATER STRAINER for debris. If necessary, close the seacock, open the strainer cover, clean the strainer, and reassemble. Be careful to seat the O ring properly or you will have a leak. REOPEN THE THRU-HULL!

Engines

Second Passage has a 52horsepower Yanmar diesel engine, which drives a three blade automatically feathering Maxi-prop propeller through a reversible transmission. Engine gauges, instruments, start, stop, and audible alarms for oil and temperature, and diesel fuel gauges are located on the starboard side of the cockpit.





The combined shift lever and throttle control is located on the right side of the binnacle. The engine will propel the vessel to 7.0 knots in calm water at 2400 RPM. Your best cruising is at 2400 RPM for longer periods.

Using higher throttle settings will produce very little increase in forward speed but will greatly increase fuel and oil consumption and the wear on the engine. For this reason, we ask that you limit the use of higher power settings to real emergency situations.

This boat has prop walk to the port in reverse with not much noticeable effect in forward.

Starting

Set the "START" battery selection switch to "On" (See battery section). The switch is located under the Navigation Table seat in the Main Salon. Place shift lever in neutral (straight up in center). Note: There is a button under the throttle base that disengages the transmission when pushed and allows the engine to be throttled up without the transmission in gear. Under normal circumstances it is not necessary to rev the engine.

If the engine is cold, preheat it by turning the ignition key to the left to the “Glow” position. Hold it there for 20 seconds, then turn the ignition key to the right. Turn the key to the ON position. Your oil and temperature alarms will sound. Turn the key all the way to the right and the engine will turn over and catch. After the engine catches, check your transom for water exiting with the exhaust on the aft starboard side of the boat. (Note: It comes out in spurts when idling.) If there is no water pumping through the exhaust, turn the engine off and make sure the Raw-water thru hull is open (lever straight up and down) and ensure the raw water strainer is free of debris. Restart the engine and again check for exhaust water pumping on the aft starboard side.

Allow the engine to warm up by idling for 10 minutes before putting under load.

Do not crank the engine for more than 15 seconds at a time. If the engine does not start the first time, WAIT for about 15 seconds before trying again. NEVER TURN THE KEY OFF WHILE THE ENGINE IS RUNNING! You will do serious alternator damage. It should always remain on.

To engage the transmission, move throttle forward for forward motion, or back for reverse. The clutch is only for changing between neutral, forward, and reverse.

Normal cruising speed is 2000 to 2400 RPM.

While sitting at idle CLOSE the companionway to prevent exhaust fumes from entering the cabin.

Shutdown

Place the transmission in neutral and allow the engine to cool down for several minutes. Usually this is about the amount of time it takes to secure your lines and plug into shore power. Push the engine stop switch located next to the ignition key. This cuts off the fuel supply to the engine. Alarms will sound until the key is switched off. After the engine stops has completely stopped running, switch off the key. NEVER TURN THE KEY OFF WHILE THE ENGINE IS RUNNING! You will do serious alternator damage. It should always remain on.

Getting Underway

To disconnect, first turn off the AC POWER CIRCUIT BREAKER on the ELECTRICAL PANEL. Then turn off the circuit breaker on the dock. Disconnect the POWER CORD from the shore receptacle on the dock and pull the cord onto the boat. Finally, disconnect the cord from the plug on the boat and store the cord. To reconnect shore power, plug in cord, turn on shore breaker, and then turn on ship’s AC breaker. Check for reverse polarity on the AC circuit board. If there is reverse polarity, disconnect the power cord and notify the dock master. Do not

attempt to use shore power if there is reverse polarity as it could damage the boats AC and DC systems.

Close the PORTHOLES, WINDOWS, and FORWARD HATCH. Once outside the marina, idle the engines while crew brings in fenders and lines. Assign one crew member to be in charge of securing ports and assign one to be in charge of the dinghy if towing. Shorten the line on all close-quartering maneuvers.

Docking

Have your crew make ready the lines and fenders and give clear instructions on how you will be docking. Have bow, stern, and spring lines ready. Often times it is best to lead them to the mid-section of the boat (the fattest part) where your crew member can easily step off and secure either one.

As you are coming in to dock, have your best communicator mid ships to give you distances from the dock. It is often hard to judge how close the dock is. Calling out distances (i.e., 20 feet, 10 feet, 4 feet etc.) will only add to a successful docking.

If you find you are too far off the dock, **BACK OFF** and do it again. **THERE WILL BE NO HEROIC JUMPING OF CREW MEMBERS!** Disaster will hit if you lose someone overboard.

Fueling Up

You will need to fuel up before returning to your slip at the end of your charter. The fuel tank holds 36 gallons of diesel fuel. You should have a rough idea of the number of gallons you will need by the engine hour indicator. Your vessel uses approximately 1.1 gal/hr. at 2400 RPM. Also periodically have someone turn on the key to watch the fuel gauge. Before pumping, have an oil/fuel sorbs handy to soak up spilled fuel.

The fuel deck cap is located starboard aft quarter. **CHECK THAT YOU HAVE THE CORRECT DECK OPENING! Use only DIESEL!** Do not add water or pump-out at the same time you are fueling. Your deck fitting key is located on a floating key ring in the Nav station desk. You can alternatively use a pliers with the fuel cap turning tab.

Place the DIESEL nozzle into the tank opening, pump slowly and 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 will rise in pitch or gurgle. Pay attention to the TANK OVERFLOW VENT on the outside of the hull opposite the tank opening. The sound may indicate that the tank is nearly full. Top off carefully, and be prepared to catch spilled fuel. Spillage may result in a nasty fine from law enforcement. Replace deck cap but do not over tighten.

Caution -- Clean up splatter and spillage immediately for environmental and health reasons. Wash hands with soap and water thoroughly.

BOAT ELECTRICAL

Electrical Systems

The electrical system is divided into two distribution systems: 110-volt AC and 12-volt DC. The systems are controlled from the AC ELECTRICAL PANEL located at the Nav Station in the Main Salon, the DC AUXILIARY PANEL located on the left and the DC panel on the right. The battery switches for “Start” and “House” are located below the Nav Station seat.

When not connected to shore power and with the engine off, batteries provide all electrical power. Therefore, monitor the use of onboard electricity carefully with your voltmeter located on the DC Panel and turn off electrical devices that are not needed. If the house battery is getting low and shore power is not available, run the engine to charge batteries.

When breakers are on they are illuminated with a red LED.

110-Volt AC System

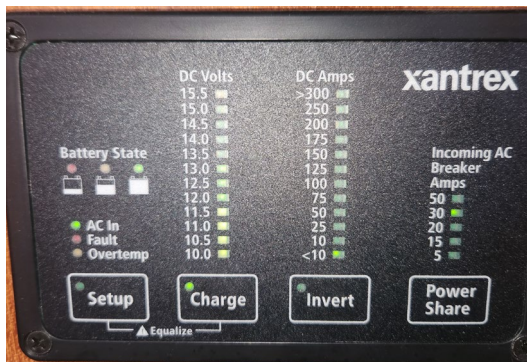
SHORE POWER supports the water heater, microwave, and 110V receptacles on board, as well as the inverter/battery charger.



To connect shore power, check the power rating/plug size of the nearest dock receptacle (that is 30-amp, 20 amp, or 15 amp). If necessary, add a CORD ADAPTER located starboard cockpit locker. Plug in the cord to both the boat's 30 amp power cord receptacle on the starboard aft quarter, and the shore power receptacle on the dock. When running the power line to the dock, it's a good idea to wrap power line loosely around the mooring line. This ensures the power cord's security and acts as a reminder to disconnect it when unmooring. Turn on shore power breaker at the dock, and then turn on ship's AC breaker. Check for reverse polarity on the AC circuit board. If there is reverse polarity, disconnect the power cord and notify the dock master. Do not attempt to use shore power if there is reverse polarity as it could damage the boat's AC and DC systems. If you are not getting power to your outlets, check that one of your GFIs have not been tripped.

Inverter

There is a 3000 watt Xantrex inverter/charger to provide limited 110volt AC power when away from the dock. When there is shore power connected, it will function as a battery charger. When it is disconnected from shore power, it can invert by pressing the INVERT button. Take care to monitor your battery life when inverting with the engine off and unplug/disconnect items that are not needed.



12-volt DC System

House Battery Bank & Switch

Two battery banks support 12-volt DC power: 1) engine battery 2) house battery

The BATTERY SWITCHES are located on a panel below the Navigation Station. Normally, leave the SWITCH in the on position.



Your 12-volt panel shows all the systems supported by your batteries. Primarily you will be turning on the breakers for your lights, water pressure, electronics, etc. Interior lights are also powered from a circuit breaker on this panel but many have individual switches at each fixture. Bilge pumps should always be left on. Your breakers such as propane and windlass should always be turned off after every use.

The HOUSE BATTERY BANK provides power for all DC systems. When disconnected from shore power, all 12-volt devices and 110-volt devices drain the house battery.

Battery systems will lose their charge while ANCHORED or MOORED. Avoid this by using power sparingly at anchor. Turn the refrigerator off at night. Use only one or two lights at a time. Turn off systems not in use such as instruments, VHF, stereo, etc. If you do not need the cabin heater, turn it off. If you stay moored for more than a day, run your engines just above idle to recharge your batteries. WATCH YOUR VOLTAGE!

Batteries are charged by the engine ALTERNATORS while underway. The engine/house batteries are charged by the BATTERY CHARGER when connected to shore power.



There are four 12-volt auxiliary plugs – two located on the electrical panel and one in each head compartment. Both of these operate off battery power alone. The 110v electrical outlets will not work under the DC battery system.

Note -- Do not change the position of the switches while the engines are running or the alternator diodes will be damaged. Change positions with the engines off.

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%

SANITATION SYSTEM

Marine Toilet

It is important that every member of the crew be informed on the proper use of the MARINE TOILET. The valves, openings, and pumps are small and may clog easily. **If the toilet clogs, it is YOUR RESPONSIBILITY!** Always pump the head for children so you can make sure nothing foreign is being flushed.

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.



Second Passage is equipped with electric flush heads. To use the heads, ensure the circuit breaker is turned on. There are two switches located near each toilet. One switch only fills the bowl with water the other switch toggles between flush with water and dry flush. Always put a small amount of water in the bowl before use and finish with a dry bowl.

Note that fresh water is used to flush these toilets so use it sparingly. There is no thru- hull for filling toilet water.

Holding Tank

The sanitation HOLDING TANK holds approximately 35 gallons. Be aware of the rate of waste production. (about 1/2 gallon per flush) With an overfilled tank, it is possible to break a hose, clog a vent, or burst the tank. The result will be indescribable catastrophe and an EXPENSIVE FIX to you. Monitor the tank level with the tank monitor system. If full, pump it at an approved pump out facility. It is illegal to pump it overboard in U.S. waters. The macerator can be used in Canadian water but, ugh (those Canadians, eh?). Always empty the holding tank before returning to home dock. Cap Sante has a free pump out facility with wash water. Alternatively, Seattle Yachts charge \$5.00 to use their pump out station in Anacortes Marina.

The holding tank is emptied in one of two ways:

#1 At the Marine Pump out Station, Remove the WASTE CAP located starboard side amid ship. Insert the pump-out nozzle into the waste opening. Double-check your deck fitting! Turn on

pump and open valve located on handle. When pumping is finished, close lever on handle and turn off pump. Remove from deck fitting.

If there is a fresh water hose on the dock, rinse the tank by adding 2 minutes of water into tank. Then repump to leave the tank rinsed for the next charter. This also eliminates head odors.

#2 The tank's contents can be discharged with the MACERATOR only in **Canadian waters**.

To operate the macerator, open the OVERBOARD THRU-HULL located in the forward cabin bilge. (It is currently zip tied shut.) Then turn on the MACERATOR circuit breaker on the DC electrical panel. Listen to the macerator's sound. When the pitch becomes higher, the tank is empty. It should only take a few minutes to empty the tank. **ONLY FLUSH THE HOLDING TANK WITH THE MACERATOR WHILE UNDER WAY IN A LARGE, OPEN CHANNEL. DO NOT OPERATE THE MACERATOR AT ANCHOR OR IN AN ENCLOSED BAY!**

When finished, turn of the macerator, close the thru-hull and zip tie it shut.



WATER SYSTEMS

Fresh Water Tank(s)

The FRESH WATER tanks hold 100 gallons in 2 tanks. Observe the water level with the tank monitor system. Be mindful of the amount of water you use while washing dishes and taking showers. Waste water from the sinks and showers drains overboard through various thru-hulls. There is no need to switch from one tank the other.

To refill the tank first be sure that potable water is available. DO NOT fill the tanks with water that is not potable. Remove the WATER CAPS located on the starboard and port sides. Attach the hose to the dock spigot and let run for a minute before inserting into deck fitting. Avoid flushing debris from the deck into the tank opening. DO NOT fill water and diesel at the same time! Do not pump the holding and fill the water tanks at the same time.

Fresh Water Pressure Pump

The WATER PRESSURE PUMP is located below the galley sink. Activate pump at the DC panel by turning on the breaker. If the water pump continues to run, you are either out of water or might have an air lock and need to bleed the system by opening up a faucet. If you run out of water, SHUT OFF YOUR HOT WATER HEATER on the AC panel. Serious damage can occur!

Hot Water Tank

The HOT WATER HEATER has a 16 gallon capacity tank and heats when connected to shore power or off the heat exchanger when the engine is running. To use in the AC mode, flip on the water heater circuit breaker on the AC electrical panel. Do not use the water heater if the water tank level is very low.

Shower

Before taking a SHOWER, make sure water pressure and shower sump breakers are on. Take only very short "boat" showers (turning off water between soaping up and rinsing). After taking a shower operate the sump pump to remove water from the base of the shower. To keep shower tidy wipe down the shower stall and floor. Check for accumulation of hair in the shower and sink drains. An exterior FRESH WATER SHOWER faucet is located in the transom. Ensure that the faucets and nozzle are completely off after use.

GALLEY

Propane Stove

The boat is equipped with a low-pressure propane system for cooking.

Your propane stove is activated by the following steps:

#1 Turn on the propane tank located in the port transom locker.

#2 Turn on the PROPANE solenoid switch located on the right side of the Galley below the counter edge.

#3 Turn on the gas at the stove (Press in knob) and light burner. You might need to hold knob in for a few seconds while the thermo coupler warms up.

When finished cooking turn off the switches and the bottle.



Refrigerator and Freezer

The REFRIGERATOR and Freezer operate on 12-volt power. Monitor the use of the refrigerator when the engines are not charging the 12-volt battery system. There is both a breaker on the DC panel and a switch inside the refrigerator. AYC will supplement you with 2 bags of ice. **The refrigerator needs to be turned OFF at night** when anchored or moored to prevent drainage of the battery.

HEATING

DC Forced-Air Furnace

The FORCED-AIR FURNACE provides heat in the same way as a household furnace. Switch on the thermostat located in the main cabin. Set the THERMOSTAT to the desired temperature. The Forward and Aft Staterooms also have thermostats, but they will not work unless the main cabin thermostat is on. Additionally, each head is equipped with a blower to provide heat to the head.

Check the furnace EXHAUST located on the Starboard of the transom for any obstruction such as fenders or lines. Do not block this opening when operating the furnace. Heat will damage fiberglass or rubber.



Close the companionway completely when operating the Forced air furnace to prevent fumes from entering the cabin.

Turn 'off' the furnace heater by turning switch back off.

Space Heaters (AC)

Two 120-volt SPACE HEATERS are available when connected to shore power. One is normally found on the shelf in the forward stateroom and the other in the cabinet in the aft stateroom.

ELECTRONICS

VHF Radio

The VHF radio is located at the NAVIGATION TABLE. Make sure the breaker located at the DC panel is turned on. Monitor channel 16 at all times.

Depth Sounder

To activate the DEPTH SOUNDER and CHART PLOTTER, turn on the GPS breaker. The 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.

Radar

To operate the RADAR, turn on breaker at DC panel then press and hold the POWER button to turn the radar on. To turn off, press and hold POWER button about 3 seconds. Remember you are not allowed to travel in FOG or in serious wind conditions.



Global Positioning System (GPS)

A fixed mount Raymarine GPS is integral to the Navigation Panel at the helm. Be sure the "GPS" circuit breaker on the DC panel is turned on to activate. It is also a good idea to have the Wavve app loaded into your smart phone. (They provide a 2-week trial period at no cost). It helps with course planning.

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

ENTERTAINMENT SYSTEMS

AM/FM Stereo Radio

The Bose unit is located main salon. It operates like a normal car radio. There is also a Sony unit located above the companionway that powers speakers in the cockpit. It also operates like a normal car radio. Both radios operate on DC power.

TV/VCR

A DVD player is located on the port side of the main salon next to the TV. The TV will only work when plugged into shore power from the 110 volt system.

ANCHORING

Choose your anchorage wisely. Seek shelter from prevailing wind and waves. Review [Gunkholing the San Juans](#) for good advice on where to anchor. If possible, use a State Parks mooring buoy or dock. You'll get a better night's sleep. Note the tide levels when anchoring. Tide fluctuations of 15 to 20 feet are common and the lowest tides are during daylight in the summer. If you anchor in shallow water in the early evening, you could find yourself aground the next day.

The primary WORKING ANCHOR is a Bruce located on the bow and is attached to 75 ft chain and 250ft nylon rode passed through the deck from the ANCHOR LOCKER.

Let out all of the chain and sufficient rope ANCHOR RODE (chain and nylon line) before setting the anchor. Colored markers are placed every 30 feet on nylon rode, indicated amount of rode that has been released. If the anchorage is crowded put down at least a 4 to 1 scope (80 feet for 20 feet of water), back the anchor in with a short burst from the engine. Then let out additional scope dependent upon conditions. *When cleating off the rope rode, take a wrap around the top of the windlass to ensure that the rode is not chaffing on the rode guide.*

Coordinate the maneuver with the helmsperson to remain steady above the anchor as it is raised. As the anchor rises, be careful not to allow it to swing against the hull

Before raising the anchor, start the engines. Turn 'on' the WINDLASS SWITCH at the DC electrical panel. As the boat moves toward the anchor, press the 'up' control to take up slack line, rather than pulling tight line. Give the windlass short rests as you are pulling it up. The windlass uses a large amount of electrical power; so ALWAYS operate the windlass with the engines running. *Monitor the rode as it is winched in, the chain rode tends to jam if it is allowed to pile up where it enters the chain locker. Stop winching it in and reposition chain rode in the locker to ensure that it does not jam the on the windlass.*

Close the plastic covers on the FOOT PEDAL CONTROLS. Turn 'off' the WINDLASS POWER SWITCH at the electrical panel.

A SPARE Danforth ANCHOR is stowed in the Port cockpit lazarette and is attached to its rode. The spare should only be needed in emergencies.

Mooring Cans

The State Park Sticker on your vessel allows you to pick up the MOORING CANS in the parks for free. You only need to register at the kiosk usually located at the heads of the docks. Mooring cans have a metal triangle at the top upon which is a metal ring. The metal ring is attached to the chain which secures your boat. IT IS VERY HEAVY. The strongest member of your crew should be picked for this job.

Come up to the CAN into the wind as you would for anchoring. Have crew members on the bow, one with a boat hook and one with a mooring line secured like a bow line. As you are coming slowly up to the can have the crew holding the boat hook point at the can with the hook so the skipper always knows where it is. Hook the can and bring the ring up to the boat to allow the second crew to thread the ring with the line. Release the hold with the boat hook. If your mooring line is led out the starboard chock bring the end of the line back through the port side. You will essentially create a bridle with about 10 feet of slack from the chalk to the can.

SAILS AND RIGGING

Winch handles are stowed in the companionway locker below the second step.

The 100% JIB is furled. The furling line is starboard of the cockpit. To unfurl the headsail, (a) uncleat the furling lines, (b) wrap the sheet around the appropriate winch, (c) pull the sheet aft while maintaining tension on the furling line, (d) cleat when desired reefing level has been achieved. To furl the jib, apply slight tension on the jib sheet while pulling on the furling line until there are three wraps to hold the sail. Be sure that the furling line is coiled and stowed in the cockpit so that it does not foul the prop.

Jib sheets are led back to the cockpit to the main winches. Adjust fairleads forward in heavy wind, aft in light wind.

The Main Sail is furled into the mast. To unfurl it, unchock both the in and out lines on the port chock block. Use the in the outhaul on the starboard chock block to unfurl the main. To apply a reef, the main can be furled to any desired area. Be sure to set the furling pulley at the mast to "RACHET" when pulling in the Main for a reef. To unfurl it, be sure to set the furling pulley to "FREE". If no reef is required, the pulley can be left in the "Free" position.

Jib sheets, reef lines, mainsheet, halyards, and traveler are all operated from the cockpit. There is a hard boomvang. There is no whisker pole, and no spinnaker setup. There is a topping lift which needs to be released after hoisting the mainsail and reset at the mast on furling the main.

Troubleshooting:

1. *Mainsail resists being unfurled.* Check that the furling lines are unchocked and that the furling pulley is set to "FREE" (not ratcheted.) The boomvang should be loose.
2. *Furling line gets stuck* partway through the furling process. This is usually due to not applying proper tension on lines in furling and unfurling process. Try letting the sail out and repeating the process. Be sure you are headed into the wind to reduce pressure on the rig. If this fails you could have an over-ride in the furling drum.
3. *Unable to point with reef in place.* Probably have not snugged the reef line sufficiently. Repeat process and be sure lines are snug before raising the halyard.
4. *There are so many other problems* – but that's what being a sailor is all about!

BARBECUE

The Barbecue is permanently mounted on the aft rail to port. Attach the BLUE REGULATOR and a PROPANE BOTTLE to the Barbecue. Both are found in the aft starboard lazarette. Carefully light the unit, with a long-stem butane lighter (the ignitor provided by the factory never works). The barbecue generates a lot of heat and cooks hot and fast. After use, restow the Regulator and Propane bottle in the lazarette. Please wipe with a paper towel before storing to prevent grease and dirt soiling the boat.

Note: Propane bottles are not stocked by AYC. You will need to purchase one if extras are not found on board.

*Caution -- For safety reasons, do not store an opened propane bottle within the salon or engine compartment. Chances are these will leak slightly once opened and propane gas could settle into low spaces. **Store these bottles in the cockpit cabinet. Ensure gasoline and flammable materials are not near the barbecue.***

DINGHY

Your Achilles inflatable DINGHY has a capacity of about 880 pounds (2.5HP Yamaha motor, equipment, and 4 people). Be sure when towing your dinghy, that one responsible individual is always keeping an eye on its tow rope when slowing down or stopping. Bring up all the slack to prevent a wrap around the prop.



When rowing your dinghy to shore, use **EXTREME CAUTION**. Choose an area free of any large rocks that might cause harm in beaching. Lift up on the dinghy to bring it up to higher ground. **NEVER** drag it! Secure it when leaving as the tides come up very quickly.

CRABBING & FISHING

Always check the fishing and crabbing requirements before you leave on your cruise. You will need a license. Many areas are **CLOSED** to crabbing and fishing on certain months.

CRAB AWAY FROM THE BOAT! Lines can get wrapped around props. Fish-flavored cat food with the pop-up ringed lids work the best for a nice neat way to bait the ring. After 30 to 60 minutes, retrieve the crab traps. Measure the crabs using the **CRAB MEASURING GAUGE** normally located in the galley drawer. Keep the male crabs of proper size (usually 6 ¼ inches across the carapace). Boil crabs about 12 minutes to cook.

After using, wash equipment thoroughly with fresh water (available from the cockpit shower faucet). *Note -- Please do not store wet rings and gear inside the boat, leave them in the dinghy to dry.*

OTHER – BILGE PUMPS / SAFETY

SAFETY should be paramount in daily cruising. Life jackets are stowed in the forward head. During rough weather or extreme current conditions life jackets must be worn. Children should always wear life jackets while on deck.

Flares and safety equipment are located in the compartment in the companionway steps.

A MAN OVERBOARD (MOB) DRILL should be discussed. In event of MOB, assign one crew member to always keep an eye on the MOB. Depress the MOB button on the Navigation display to record the MOB position. If sailing, furl the main and jib. Check to be sure that no lines are in the water that could foul the prop before starting the engine. The engine will allow greater maneuverability when recovering a MOB. A Life Sling is provided for recovery of MOB. Review instructions on the Life Sling with crew before departure. It's a good idea to practice recovering a floating object with the boat hook.

Second Passage is equipped with two AUTOMATIC BILGE PUMPS, one low in the bilge and one higher. The master circuit breakers for the bilge pumps is located on the panel below the NAVIGATION STATION seat. Power should always be provided to automatic bilge pumps. You may occasionally hear the pump operate due to condensation and water from the shaft accumulating in the bilge. If the water in the bilge reaches the high bilge pump, an alarm will sound. This means that either the primary bilge pump is not working, or a large amount of water is entering the bilge and true emergency exists. Check bilges daily to ensure that no large amount of water is accumulating.

An AUXILIARY HAND OPERATED BILGE PUMP operates with the emergency handle located in the port side lazarette. This is used only in emergency situations.

The ENGINE SPARES BOX (plastic black and yellow box) is stowed port side lazarette. This includes oil filter, raw water impeller, pump parts, injectors, and other small parts.

THRU-HULL LOCATIONS

Thru-hulls for the engine coolant water and sink drains are located in the bilge just in front of the engine compartment. Thru-hulls for the Macerator and forward berth sink are located in the bilge of the forward berth. Thru-hulls for the knot meter and depth sounder are also located in the forward berth bilge.