

Fairwinds

Sailing and Recreational Society

Standard Operating Procedures

Jolie Systems

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Jolie Systems

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Overview

Boat Type:	1988 Pearson 33-2
Hull Number:	140
Hull Id. Number:	PEA88I40F788
Length (LOA):	32' 6"
Length (LWL):	26' 3"
Beam:	11' 0"
Height:	47' 6"
Draft:	5' 11" (fin keel)
Displacement:	12,441 lbs
Ballast:	4,000 lbs
Sail Area:	515 sq ft.
Hull Speed:	6.87 kts
Fuel Capacity:	18.5 US gal (15 imperial Gal or 68 liters)
Potable Water:	
Aft Tank:	20 us gal (16.5 imp gal)
Vee berth Tank:	24 us gal (20 imp gal)
Hot Water:	6 us gal (5 imp gal)
Engine:	Yanmar 2GM-20F 18hp at 3600rpm
Holding Tank:	14.5 US Gal (12 imp Gal)
Rudder:	Spade

Electrical Systems

Batteries

House Batteries

(Number 2 on selector) located under after berth (2-6V batteries in series)

Engine Starting Battery

(Number 1 on selector). To be used for starting engine only.

Battery Selector

Location: The selector switch is located in after cabin.

Warning: NEVER turn the battery selector through the "OFF" position while the engine is running. If the "OFF" position is selected while the engine is running, the alternator diodes may be seriously damaged. Switch battery selector through the "BOTH" position to select batteries.

Use: To start the engine, when leaving dock, select battery #1 (Starting battery). Once the engine has started, you may select battery #2 (house batteries), by turning the selector through the “BOTH” position and leave it there for the duration of your voyage. The engine may be started from the house batteries without detrimental effect to them, but using the starting battery at least once per trip will lengthen the life of the starting battery.

After Use: Battery selector switch must be turned to the “OFF” position when finished using boat.

Warning: The diesel heater is not wired through the battery selector switch and must be turned off separately. All other 12 Volt breakers should be turned off.

Battery Charging

Location: There is a permanent charger located under the aft berth. The breaker for the permanent charger is located on the shore power portion of the breaker panel. This system may only be used when connected to shore power. The permanent charger is a “smart” charger that will not overcharge the batteries when connected to shore power so the 110v charger breaker should be left in the on position when connected to shore power.

Use: The built-in battery charger may be used at any time while connected to shore power. When the engine is running, the alternator charges all batteries, regardless of selector position. If running the engine only to charge the batteries, do not idle the engine, run at about 1200 to 1500 rpm to ensure proper lubrication.

After Use: If connected to shore power leave the charger breaker in the on position. When not connected to shore power the breaker should be in the off position.

Breaker Panels / Power Distribution

The following is a list of equipment that is isolated by each breaker.

12 Volt Breaker Panel

Breaker Name	Systems Controlled
Cabin Lights	All interior lights
Running Lights	Running lights (sail and steaming light)
Anchor Light	Anchor light
Nav / Com	VHF radio stereo & CD changer
Instruments	Cockpit instrument cluster
Sump Pump / Water Pressure	Shower / head sump pump (switch is in the head) Turns on water pressure system (NEVER USE if the water the tanks are empty)
(blank)	Not connected to anything
Head Discharge	Operates holding tank pump
Spreader	Spreader lights (shines on foredeck)
Propane	Operates propane shut-off valve

12 Volt Systems not wired through a Breaker

- Auxilliary 12 Volt plug-in (cigarette lighter type).
- Bilge pump (pump operated by switch above breaker panel and will operate even when battery selector is in OFF position).
- Webasto diesel heater (will run with battery selector in OFF position).
- Clock on breaker panel (will run with battery selector in OFF position).
- Propane alarm (will NOT operate with battery selector in OFF position).

120V Breaker Panel

Breaker Name	Systems Controlled
Main Breaker	Turns shore power on to the rest of the panel
Reverse Polarity Light	Light turns on if polarity reversed
Outlets	Electrical outlets
Appliances / Water Heater	Turns on the water heater
Accessories / Battery Charger	Turns on the built-in battery charger.

Individual Electrical Systems

Shore Power

Jolie has a 120V - 30 Amp system (round plug). A gender-bender is required to connect to 15 Amp shore power.

Connector Location: The shore power connector is located under the helmsman's seat (after cockpit port side).

Shore power breakers: The forward section of the breaker panel is for shore power systems. These include electrical outlets, the water heater and battery charger.

Cable: The shore power cable is kept in a canvas bag in the lazarette. Also in the bag are: gender-bender fittings, Velcro tabs for supporting the cable and a rubber bungee for supporting the cable at the jetty power source. Always store the cable on board, never leave it on the jetty. When connecting to shore power, always "work towards the source". This means connect the boat end first, secure the cable run and finally connect to the shore power source. Always make this connection last so the cable is never live until it is all set-up.

After Use: When finished with Jolie, leave her connected to shore power at Tsehum Harbour.

Water Heater

Location / Specifications: Six gallon hot water tank is located under the holding tank, accessed from the lazarette. Water is heated by 120V (shore power) electric heater element and also by engine heat. The breaker is located on the shore power breaker panel.

Use: Hot water may be turned on whenever connected to shore power.

Warning: **Do not turn on the water heater breaker when the tanks are empty. The heater must be full of water before 110v power is applied in order to avoid damage to the heater element. You can confirm there is water in the system by turning on any tap while system is pressurized.** In addition to the shore power water heater, the water also automatically heats whenever the engine is running.

After Use: Turn off hot water breaker.

Electrical outlets

Location: Electrical outlets are located throughout the cabin.

Use: Outlets may only be used when connected to shore power. To use, turn on the outlet breaker on the shore power breaker panel. The outlets in the galley and head are ground-fault protected.

After Use: Turn off the outlets at the shore power breaker panel.

Electric Bilge Pump

Location / Specifications: The electric bilge pump is located under the deck panel, amidships, next to the liquor cabinet. It has a single pick-up located amidships, about ½ inch from the bilge bottom. Operating switch is on the instrument panel.

Flow rate is: 800 gph

Automatic operation: Leave the switch in the *Automatic* position. The automatic bilge pump runs directly from the battery.

Manual operation: Select *Manual* on bilge pump selector switch. Switch back to *Automatic* when the pump loses suction.

Stereo / CD changer

Location / Specifications: Stereo and CD changer are located port side in the cabin.

Speakers are located in the cabin and in the cockpit. Fader control may be used to select between these.

Use: Refer to manual for operation. Nav/Com breaker must be on.

After Use: The CD cassette must be left in the CD changer after use. The remote control must be left on its Velcro tab after use.

Depth, Speed, Log and Water Temperature

Location / Specifications: Sensors are located in the forward bilge compartment. The instrument displays are located on the binnacle.

Use: Turn on the instrument breaker on the breaker panel.

After Use: Turn off the instrument breaker.

Interior Lighting

Location / Specifications: Located throughout cabin. All interior lights operate on 12V.

Use: Lighting breaker must be on. Dome lights may be switched to either red or white light.

After Use: Turn off all lighting and the breaker.

Navigation and Deck Lighting

Location / Specifications: Controlled from navigation light control panel and main breaker panel.

Use: The navigation light control panel shows various light configurations.

Configurations are running lights (sail and motor) anchor light and foredeck light.

After Use: Turn off all lights and shut off breaker.

VHF Radio

Location / Specifications: Standard Horizon Quest-plus.

Use: Refer to owners manual. Command Mic. is stored under chart table, it is to be connected to connection in cockpit (when installed)

After Use: Place Command Mic. under chart table, turn off radio and breaker.

GPS

Location / Specifications: Located on holder, port side, forward of the nav station

Use: Use plug-in connected to the GPS holder as much as possible.

After Use: Place GPS in holder and connect fitted plug-in. Turn off GPS unit.

Engine / Propulsion Systems

Engine

Overview

Engine Type:	Yanmar 2GMF-20
Horsepower:	18hp @ 3600rpm
Basic Description:	2 Cylinder, Freshwater Cooled, Diesel Engine.
Hour-meter:	Located above breaker panel
Price:	Pay the hourly rate to the kitty located in the navigation table. (\$2.00 per hour at time of publication of this SOP)

Starting

1. Check oil. Dip stick is accessed via small door in aft cabin. Engine room light switch is below the battery selector switch (*cabin lights* breaker must be on to operate light). If low top up with 15W-40 engine oil. Spare oil is stored next to battery charger under aft berth.
2. Check cooling water level (Check only when cold).
3. Check cooling water through-hull (normally left open) in main engine compartment.
4. Visual check. Check for obvious leaks of oil, fuel or cooling water, check alternator and water pump belt tension, check for loose or broken components. When replacing companionway steps, ensure the bottom of the step is properly seated. Report problems to boat captain.
5. Check fuel level. Fuel tank gauge is under aft berth.
6. Place gear selector in neutral.
7. Place throttle at about $\frac{3}{4}$ full on position.
8. Turn on ignition and press start button.
9. Engine should turn over. Release button as soon as engine fires.
10. Do not crank engine for more than 15 seconds. If engine fails to start, wait 15 seconds and try again. NEVER press the start button unless the engine is fully stopped.
11. Quickly bring the throttle back to just above idle position and allow the engine to warm for a few minutes before use. (you may see a puff of black smoke on a cold start. This is not a problem if it disappears after a couple of seconds).
12. Visually check that water is being ejected out the exhaust pipe. This indicates correct cooling water flow.
13. Allow engine to run at idle for five minutes to warm up prior to putting on load.

Running

1. Select desired gear (forward – down, back – up). Always ensure engine is at idle before changing gear.
2. The engine is rated for 3600 rpm. It runs most comfortably at about 2800 rpm.
3. Maintain a watch on engine rpm, listen for unusual noises, monitor engine exhaust colour, and visually inspect quantity of water in exhaust on a continual basis. Shut engine down if there is anything out of the ordinary.
4. The most common cause of overheating is seaweed stuck in the cooling water inlet. If overheating occurs... shut off engine, close engine water through-hull valve and clean water strainer (near the valve). Replace strainer, open valve and try engine again.

Stopping

1. Place throttle at idle. Allow engine to operate at a low speed for about five minutes to cool. If engine has been used at low speed for this amount of time to moor the boat... this will suffice.
2. Ensure gear box is in neutral.
3. Move throttle to $\frac{3}{4}$ position and allow engine to rev for about 2 seconds.
4. Move throttle to idle and pull stop lever while engine is coming down from the high revs so that it slows and stops in one smooth motion. (this procedure will help clear carbon from the cylinders before shutting off)
5. Switch off the ignition.

Emergency Starting

To start the engine if the electronic starting will not work, use the hand crank lever located somewhere... or maybe not... If you find it, please let the boat captain know. To start by this method, hold open the decompression lever, hand crank the engine and then close the lever while cranking. This is a two person job.

Emergency Stopping

1. In the case of an emergency, pull and hold the stop lever until the engine stops.
2. If the stop lever does not work, pull the stop lever mechanism on the engine.
3. If the engine still won't stop, close the fuel shut-off valve (under aft berth). Fuel lines will need to be bled to re-start.
4. As a last resort (in case of engine run-away) pull the decompression lever until the engine is stopped. If you use this method, fuel delivery to the engine continues until the engine stops turning. This will result in abnormal combustion, and possibly explosion, when the engine is next started.

Engine Emergencies

The engine alarm panel has audible and visual alarms for high water temperature (Overheating), low oil pressure and low charging voltage (Alternator Failure). The following actions should be carried out if the alarms sound.

Overheating

If engine overheats, STOP ENGINE IMMEDIATELY. The most likely cause is a sea water blockage. Clean strainer and try again.

Oil Pressure Failure

In case of oil pressure failure, STOP ENGINE IMMEDIATELY. Check oil level and replenish if required. If oil level is ok, do not re-start engine. If oil level is low, (it will have to be very low to cause a loss of oil pressure) then check for leaks prior to restarting.

Alternator Failure

If the alternator fails, you may keep running the engine. The batteries however will not be charging during operation, and the problem should be rectified as soon as possible.

Engine Systems

Fuel

Location / Specifications:

Tank is located under aft berth (18.5 US Gal).

Fuel gauge is located under aft berth.

Fuel shut-off valve is located on the top forward edge of the fuel tank, accessed under the aft berth.

Deck fitting: located at the aft port corner of the deck.

Use: Fill with diesel fuel only. Fuel consumption is about 1/2 Imp. gallon per hour at 2800 rpm. (Feel free to calculate it for a long trip and let the boat captain know what your consumption is). The range of Jolie on a full tank is about 30 hours or about 180 nautical miles. Do not run out of fuel or you will have the joy of priming the fuel system when you fill it next.

After Use: No action required.

Engine Oil

Location / Specifications: Filled though cap on top of engine rocker cover. Oil is stored under the aft berth on the stbd side.

Use: Use 15W-40 only, check oil level once per day during engine use.

After Use: Clean all spilled oil as if the engine compartment is your kitchen.

Engine Coolant (Fresh)

Location / Specifications: Engine coolant may be checked via the expansion tank, located in the upper port side of the engine compartment. This is accessed from the aft cabin (under the forward shelf).

Use: May be topped up with fresh water or anti-freeze coolant. Inform boat captain if it is necessary to top up engine coolant.

After Use: Clean any spills as if the engine compartment is your dining room.

Cooling Water (Sea Water)

Location / Specifications: Through-hull valve is located in the engine compartment, under the companionway on the starboard side. The strainer is located just above the through-hull valve.

Use: The through hull should be left open at all times. A visual check should be carried out prior to boat use. The strainer should be checked / cleaned if a cooling problem arises. A loss of cooling water flow may be indicated by a lack of water flowing from the exhaust, or the sound of the exhaust changing to a loud, throaty roar.

After Use: No action required.

Other Propulsion Systems

Transmission

Location / Specifications: The transmission should not require any maintenance by boat skippers. Use SAE 30 oil in the transmission only.

Shaft Seal

Location / Specifications: Located under aft berth. There is a dripless, permanent stuffing box fitted.

Propeller

Specifications: Two blade right-hand prop. Walks to port when going astern.

Domestic Systems

Ice Box

Location: The ice box is located under the chart table. The drain is the hand pump located in the head sink.

Use: It is recommended that the ice box be pre-cooled prior to use (by placing a block of ice in the cooler approx. 12 hours prior to use). Storing food in such a way as to minimize the amount of times the ice box is opened will maximize the life of a block of cooling ice.

After use: Always do the following: empty, pump out, wash, place some fresh water in the ice box and pump-out again then wipe dry. Leave the lid open to allow the ice box to dry completely.

Fresh Water

Location / Capacity: There are two fresh water tanks. The forward tank (24gal) is under the vee-berth, the after tank (20gal) is under the starboard settee. The hot water tank (6gal) is located in the lazarette, under the holding tank. The pressure pump and valves are located under the starboard settee.

Deck Fittings: There are two deck fittings, one at the bow for filling the forward tank and one starboard side aft of the shrouds for the filling the after tank.

Use: Pump must be turned on at breaker panel. Normal use is to use forward tank only and reserve after tank for back-up if you empty the forward tank. If you are going to fill both tanks at the end of your cruise, you may use either tank (selector valves are under the after settee). Select only one tank at a time, do not open both tank valves at the same time (this will connect both tanks together and they will attempt to equalize levels).

Warning: Only turn on water pressure pump when it is required, and NEVER if the tanks are empty.

Warning: When one tank is empty, always shut off the empty tank and select a full one.

After Use: Always ensure the after tank is full and the forward tank is selected for use. If you empty the forward tank... fill it too.

Sinks and Drains

Location / Specifications: There are two sinks... galley and head. Each supplied with hot and cold pressurized water.

Use: Through-hull valves for drains must be opened for use. One is located under each of the sinks. Close the head sink drain when sailing. On a port tack, the head sink can fill with water, and it will slosh about and make a mess. DO NOT attempt to close the valve under the galley sink... it is stuck.

After Use: Close through-hull valves (Leave the galley valve open...this is a temporary measure).

Head and Holding Tank

Location / Specifications: 14.5 gallon holding tank located forward part of lazarette. Diaphragm pump and Y-valve are located above the tank. Head inlet through-hull located in forward port corner of engine compartment. Tank full light (red) located in head on port bulkhead. Overboard pump-out through-hull valve is located in the bottom of the lazarette.

Head Use: If you didn't eat it, it shouldn't enter the head (with the exception of a tiny amount of RV / Marine grade toilet paper). Ensure through-hull is open. Pre-flush if you are doing a number 2 to wet the bowl. The Y-valve selects either overboard flush or Flush to holding tank. Do not flush to holding tank if the red "*holding tank full*" light is on. Flush 10 to 15 "wet" pumps to ensure your deposit is flushed though the system to the tank or over the side. Then pump bowl dry.

To Pump Holding Tank Overboard: Ensure *discharge through-hull valve* is open (it should be left open). Turn on the pump at the breaker and run pump until the tank is empty.

To use Vacuum Deck Discharge: Connect vacuum hose to deck fitting and empty tank. There are no valves to open.

After Use: Close head suction through-hull valve. Ensure Y-valve is in the overboard position. Leave the overboard pump-out through-hull in the open position.

Shower

Location / Specifications: Shower is located in the head.

Use: Ensure shower curtain is up. Turn water pressure breaker to the ON position. While showering, turn ON the sump pump switch (in the head) and turn it OFF immediately after your shower. (remember... showering uses up your water supply). To make water come out of the shower head, open the valve between the faucet controls and the showerhead.

After Use: Ensure shower area and curtain are dry and sump has been pumped dry.

Galley Stove

Location / Specifications: Gimballed two burner propane stove with oven. Fiddles are stored in bottom of galley drawer.

Use: Refer to owners manual for proper operation. Also, see section below about propane use.

After Use: Shut off propane and clean the oven as if you are about to eat off it.

Propane

Location / Specifications: Propane tank is located in the propane locker, aft – port side of cockpit. System has a solenoid shut-off valve. Note: the propane alarm is not connected to the solenoid. If the alarm sounds, shut off the propane breaker immediately. To test the operation of the alarm, press the test button... the light should come on immediately and the audible alarm will sound after holding the button down for 15 to 20 seconds.

Use: To use, tank valve must be manually opened. Solenoid valve must be opened by turning on at breaker panel. Propane is now ready to be used (stove only). Tank valve may be left open while cruising, but solenoid should be shut at all times when propane is not in use. If propane is sensed by the detector, the alarm light will come on immediately and the audible alarm will sound after propane has been sensed for 15 to 20 seconds. When finished using the stove, shut solenoid valve by shutting off the propane breaker and allow the flame to extinguish on its own (uses the propane in the line) then close the control valve on the stove.

After Use: Close the tank valve before retiring for the night, and at the end of your cruise. Fill the tank if you emptied it.

Cabin Heat

Location / Specifications: Webasto diesel heater located in after end of lazarette. Heat outlets are located in head, aft cabin and main cabin. Thermostat is located in main cabin, port bulkhead above the settee. The on/off switch is also located in main cabin, port bulkhead above the settee.

Use: To use, turn on heater by pulling the black on/off knob out (a green light in the middle of the knob should come on. Set thermostat to desired heat. Do not block the heater outlets.

After Use: Turn off heater.

Warning: The heater will run with the batteries turned off and can therefore drain the batteries. Turn it off, by pressing in the knob, when not in use and always when leaving the boat!! (This is a safety feature of the heater to ensure that it always has a cooling down period)

Bunks and Cushions

Location / Specifications: Located throughout the boat.

Use: Use as desired, keep dry.

After Use: Place cushions on their side to promote air circulation.

Rigging

Sails

Location / Specifications: Main and roller-furled genoa only. Two reefing points on main, single reefing point on genoa.

Use: Use proper seamanship. Note that genoa reefing point is indicated with a vertical line on the foot of the genoa.

After Use: Furl sails, secure all lines and place cover on the main.

Running Rigging

Location / Specifications: All led back to cockpit except topping lift and outhaul. There is a spare halyard rigged on the port side of the mast.

Use: Use proper seamanship.

After Use: Coil and stow all lines on their hangers.

Docking Lines, Fenders, etc.

Location / Specifications: Dock lines and fenders are located in the lazarette. Life line on starboard side opens for easy access to dock.

Use: Use as appropriate.

After Use: Coil and stow all lines, close lifelines.

Deck Systems

Steering

Location / Specifications: There are two fitted steering systems. The “destroyer wheel” on the cockpit binnacle and the emergency tiller system. The tiller is kept in the lazarette, the rudder post fitting is located under a white, round cover under the helmsman’s seat.

Use: Use as per manuals. Steering lock is located on starboard side of the pedestal. Do not over tighten.

After Use: Leave steering unlocked and cover the binnacle with the canvas cover.

Through-Hull and Vent locations

Location / Specifications: It is important that skippers are aware of where the hull is penetrated, as these are potential locations for major leaks. Also, care must be taken not to damage these if the boat is hauled out of the water. Locations are shown in figure 7.1 in the *Pearson 33 Owners Manual*. The following is a list of the through-hull penetrations near or below the waterline:

1. Engine salt water intake
2. Head intake
3. Head overboard discharge
4. Bilge discharge

5. Sump discharge
6. Galley sink drain
7. Head-sink drain
8. Propane bin drain
9. Deck drains

There are also vents and drains above the waterline... they are:

1. Propane bin vent
2. Cockpit drains
3. Engine exhaust
4. Fuel tank vent
5. Holding tank vent
6. Anchor locker drain

Finally, just forward of the keel are the instrument heads (knotmeter (wheel type), depth sounder, water temperature). These are accessed from the bilge, under the table.

Most through-hulls have a wooden plug for emergency use, located on a sting, near the hull penetration.

Storage

Location / Specifications: There is dry storage located throughout the boat. All skippers should be familiar with the location of all storage.

After Use: Empty and clean all storage compartments you use as if you are going to eat out of them.

Anchoring

Location / Specifications: There is 10kg Bruce anchor with 10 feet of chain and 170 feet of rope located in the anchor locker on the bow. The rode is marked with numbered flags at 30 foot intervals. There is a hand windlass and operating lever located in the locker. A spare Danforth anchor and rode is located in the lazarette.

Use: Use proper seamanship anchoring procedures.

After Use: Clean and stow all components used. Secure anchor at bow with the deck clasp.

Bilges and Bilge Pumps

Location / Specifications: The bilges are shallow so please keep them as dry as possible to avoid damaging the wooden floor. They are accessed via removable deck plates throughout the cabin. There are three bilge pumps. One electric 800gph (located in bilge next to liquor cabinet), one permanently mounted hand pump 500 gph (suction located in bilge next to liquor cabinet, operated by hand-pump on cockpit on the port side) and a portable hand-pump kept in the lazarette. The manual bilge pump handle is located in the lazarette.

Use: Follow directions in manuals.

After Use: No action.

Stern-tie Line

Location / Specifications: At the writing of this SOP, there is no stern-tie line on Jolie.

Use: N/A. 23 Jan 2005

After Use: N/A. 23 Jan 2005

Safety and Miscellaneous

Emergency Equipment

Flares

Location / Specifications: Coastguard approved complement of flares are located above the settee on the starboard side.

Use: In case of emergency, use according to instructions.

After Use: Record in log and inform boat captain of use so flares can be replaced.

Life Vests – PFDs – Floating things

Location / Specifications: There are four adult PFDs. They are stored in the hanging locker in the aft cabin. There are four boat-cushion / throwing-devices kept under the vee-berth. There is one life-sling attached to the pushpit rail.

Use: Follow coastguard approved directions for the use of each device. The square throwing cushions may be used for cockpit cushions while underway. A fender should be used to practice man-overboard drills... tie a loop in the fender line for easier retrieval with a boat hook.

After Use: Return all items to their storage place after use.

Fire Extinguishers

Location / Specifications: There are three – 3lb dry chemical ABC fire extinguishers.

10. Lazarette

11. Vee-berth

12. Galley

Use: All skippers must read the directions on the side of the extinguishers. To use, pull pin, point at base of flame from a couple of feet away, squeeze lever.

After Boat Use: No Action

Tools and Spare Parts

Location / Specifications: Tools and spare parts are located in tool boxes in the forward cabin.

Use: If spare parts are used from the tool boxes, let the boat captain know. Ensure tool boxes are secure, prior to sailing.

After Use: Dry off and clean the tools before replacing in the tool box.

Lightening Protection

Location / Specifications: Jolie is fitted with a lightening protection system. This system provides a cone of protection around the boat during an electrical storm. A *bonding system* of #8 gauge stranded copper wire connects the chainplates, mast step, fuel fill and fuel tank to the keel.

Use: In the case of an electrical storm, do not allow anyone in the water. Everyone on board must stay inside the boat. Do not make contact with any metal object, regardless if it is connected to the bonding system or not, especially in such a manner as to bridge any of the bonded items listed above.

After Use: In the case of a lightning strike, damage to electronic equipment is likely. All electronic equipment must be tested for proper operation and calibration. Contact boat captain in case of a lightning strike.

Safety Alarms and Warnings

Reverse Polarity Light

Location / Specifications: Warning light located on 120 Volt shore power breaker panel

Use: If this light is on, turn off the 120 Volt shore breaker immediately, disconnect the power cable from the shore power connection and inform the marina management. Do not use reverse polarity power, it can kill you.

After Boat Use: No Action

Propane Alarm

Location / Specifications: There is one propane sniffer (red thing) located at foot level below the chart table. Be careful not to bump it as it will be your responsibility to replace this expensive part if it is broken. The alarm monitor is located on the breaker panel.

Use: The alarm should be turned on and tested each day. Test by pressing the test button and holding for 20 to 30 seconds. The red light should come on immediately, and the alarm should sound after about 20 to 25 seconds. Leave alarm turned on at all times that a propane tank is on board. This alarm is not connected to the propane valve. If alarm sounds, extinguish all flames and shut off propane valve immediately. Evacuate the cabin, shut of tank valve and open hatches to air out the cabin.

After Use: No action required.

Engine Panel Alarms

Location / Specifications: The engine operating panel has light and audible alarms for high water temperature, low oil pressure and low charging voltage.

Use: Stop engine immediately and investigate problem if alarm sounds. See section on engine emergencies for corrective action.

Miscellaneous

Documentation, Log and Operating Manuals

Location / Specifications: The operating manuals for all equipment are located in a binder situated on the starboard side above the settees. The *Pearson 33 Owner's Manual* and the Yanmar owner's manual are also located here. The log book, charts and other paperwork are located in the chart table.

Use: All skippers should familiarize themselves with the operating procedures for every piece of equipment on board.

After Use: Return to proper stowage locations.

Dehumidifying and Winter Storage

Location / Specifications: During cooler months, an electric heater and a blower will be placed on board by the boat captains.

Use: During winter months, while the boat is not in use, both the heater and blower should be plugged in and left running to minimize moisture. The heater should be left on its lowest heat setting.

After Use: Carefully stow the heater and blower while sailing.

The Bar

Location: Liquor cabinet is located on the port side of the galley.

Use: Instructions are in the liquor cabinet in a little note book. Use the 1 oz measure located in the cabinet to measure your drinks. Keep a record of how much you drink in the note book (tear out when done) and pay the posted rate per drink to the *bar kitty* located in the cabinet. Replenish any depleted stocks from the bar kitty. Keep bottle receipts in the kitty.

Warning: If you sail to the US... on your return, Canada Customs has the right to charge a skipper duty on all alcohol onboard (over your duty-free limit) unless it is in an unopened (sealed) bottle and you have a Canadian receipt for it. If they do this, it is only on the actual amount of liquor in the bottles. Generally they will not bother to do this as thousands of boats travel to and from the US with stocked bars every year; however, they can, and occasionally do, exercise their right to check your bar and charge duty. If you do not wish to be subject to this possibility, drink what you take or remove the booze prior to sailing. When asked by Customs what you are bringing into Canada, tell them what you bought... don't flap your gums about the bar... they never ask if you are bringing back open booze that you purchased in Canada before you left so there is no need to mention it.

Miscellaneous Boat Equipment

There is various equipment located throughout the boat.

Location / Specifications:

Flashlights: One in the aft cabin, one on port shelf above settee.

Hand held wind speed indicator: Port shelf above settee.

Winch Handles - locking type (2): Port shelf above settee (use these ones).

Winch Handles – non-locking type (1): Port shelf above settee.

12 Volt portable spot light: Port shelf above settee.

12 Volt, 1.5 amp portable trickle charger under settee.

Hand bearing compass: Port shelf above settee.

Spare parts box: Under vee-berth.

Tool Box: Under vee-berth .

Batteries: Port shelf above settee (if you use them up, replace them or let boat captain know).

Wooden through-hull plugs: Port shelf above settee.

Plastic step stool: Vee-berth, may be used as a dock-step or short helmsman's pedestal.

Companionway door (three pieces): Stored in canvas hanging bag in aft cabin.

Use: All skippers should familiarize themselves with the locations and proper use of all items.

After Use: Carefully stow any items used.

Cleaning Supplies and Equipment

Location / Specifications: Cleaning supplies are located in a green container under the galley sink.

Use: Use as required.

After Use: Replace or inform boat captain of any required replenishments.

Barbeque

Location / Specifications: Propane barbeque located aft port cockpit mounted on the pushpit. This barbeque uses disposable screw-in propane canisters. The regulator fitting (and a spare) are located in the bottom drawer in the galley.

Use: Follow instructions in manual book.

After Use: Clean and replace cover.

Locks and keys

Location: All locks and keys are to be kept in the nav. table when not in use.

Pre-sailing Checklist

This checklist is intended to be a guide only. Skippers are responsible for all systems on board. Non-inclusion in this list is not an excuse for improper system or boat use.

1. Batteries: Select (#1 to start engine, #2 for house systems).
2. Fuel: Check.
3. Oil: Check.
4. Ensure engine water through hull open.
5. Engine water: Check.
6. Visual inspection of engine.
7. Nav. systems: Turn-on and check.
8. Stowage of equipment: Ensure everything is secure for sea.
9. Shore power disconnect and store all components in the shore power bag.
10. Ensure wheel unlocked.
11. Prepare sail covers, raise flag, inspect safety equipment, takeout winch handles.
12. Read recent log book entries.
13. Bilges check. Empty all water so it does not slosh onto the floor.
14. Brief crew/passengers on conduct, safety equipment/procedures and appropriate use of head.
15. Fresh water: Check tank levels if cruising.
16. Through-hull valves... Check
17. Ensure head sink through-hull valve closed prior to sailing.

Post Sailing Checklist

This checklist is intended to be a guide only. Skippers are responsible for all systems on board. Non-inclusion in this list is not an excuse for improper system or boat use.

1. Shore power: Connect and secure power-line to stanchions and dock post. Connect at boat first and then dock last.
2. Breakers: Turn off all 12Volt breakers, turn on *shore power* breaker, *outlets* breaker and *battery charger* breaker.
3. Canvas covers: Binnacle and main sail.
4. Keys: Place in nav. table.
5. Log book. Enter details for your trip.
6. Battery selector to the OFF position.
7. Bilge pump on *Auto*.
8. Ensure that the heater button is PUSHED IN to the OFF position. (battery selector does not turn this off).
9. Kitty (\$2.00 per hour of engine use).
10. Stow winch handles and flag etc.
11. Heaters for winter storage. Plug in to outlet and turn to lowest heat setting. Place on galley counter.