

Heather Jean

Catalina 320

Orientation Guide

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ATTENTION: *Heather Jean has a fin keel-Draft of 6' displacement of 11,300lbs.*

1. ELECTRICAL SYSTEM

The master battery switch is located above the starboard settee, the electric panel is on the port side above the chart table.

Use both batteries for engine starting and operation. Never switch the master while engine is on. Switch to one battery when the engine is off and when you leave the boat. Be sure all other switches except the bilge pump are off when you leave the boat. To use cabin lights, switch on "Cabin Lights" panel switch. Turn off in the morning to prevent battery drain.

The two twelve-volt batteries are located beneath the starboard settee.

The shore power cord is to be taken with you, do not leave it on the dock. Do NOT drop the shore power cord in the water, or leave it in the rain, etc. If this happens, do not plug it in and advise the Sailing Center Staff. Make sure you unplug the **shore side** first to prevent exposing a charged cord over the water. When replacing it, run shore power along the boat

OUTLETS: The outlet's breaker is on the electrical panel and must be turned on, shorepower cord connected and shore power switch turned-on on the electrical panel. If the outlets do not work, check the second circuit breaker switch in the port lazarette located just under the lid opposite the shore power receptacle.

Ground Fault Interrupter (GFI)

The AC outlets are equipped with GFI, which protects against electrocution. If the GFI system detects a condition that could indicate that a person is receiving an electrical shock, it shuts off the power extremely rapidly. The system is highly sensitive, and therefore can be triggered by the moisture present in the boat.

If an AC outlet has no power, verify that the AC control panel has power and that the OUTLET breaker is on. Then check for an AC outlet that has a triggered GFI (a small button that has popped out). The GFI may be on the dead outlet or on another outlet. (A GFI-equipped outlet can protect a string of outlets). Push the button back in and power is restored to all outlets in the string.

2. ENGINE OPERATION

Heather Jean is equipped with a 27 HP *Yanmar* three cylinder diesel, freshwater cooled. Fuel consumption is approximately **1/2 gallon per hour** at the recommended cruising RPM of 2700. The fuel capacity is 20 gallons and the range of about 200-240 miles (or 40 hours of motoring). There is a fuel gauge on the binnacle.

ENGINE CHECKS:

Oil: Check daily. Access is located under the stairs. Lift the stairs and secure the clip under the bottom step in the eye hasp on the overhead companion way cover. Unlatch the cover by opening the black latches on the port side and carefully lift the cover about 2 inches and *pull out the bottom and lift up*. Carefully place aside to access the dipstick which is located on the starboard side of the engine. The dip stick is marked with a yellow *loop*. Pull firmly to lift the stick. Please minimize rubbing on the hoses near the dipstick. Remove it carefully, do not drop oil at the base of engine or on the floor.

ONLY ADD OIL IF SLIGHTLY BELOW THE FULL MARK ON THE DIPSTICK AND DO NOT OVERFILL. Overfilling causes engine damage.

Oil Fill Access: The oil fill is located forward and center of the engine. (It has been marked "Oil Fill" with a temporary tag.) **DO NOT OVERFILL - ADD A SMALL AMOUNT OF OIL (1/2 CUP) AND CHECK THE DIP STICK AGAIN.**

Coolant: Access for checking coolant level is on the port side of the engine. Attached to the bulkhead under the engine cover is a plastic Recovery Tank. Levels of "Max" and "Fill" are clearly marked on the tank. If below "Fill" level, add distilled water, which is accessed through the aft engine cover. Please secure lid for coolant recovery tank.

Raw Water intake/strainer: This is located in the aft stateroom, under the boards of the forward cushion. Move the cushion, lift the center boards (the ones marked). Close

the thru-hull. Carefully unscrew the plastic base of the strainer, remove the debris from the strainer and GENTLY screw the strainer back on. **ONLY HAND TIGHTEN. TOO TIGHT WILL CRACK THE STRAINER. REMEMBER TO OPEN THE THRU HULL.**

To start the engine:

1. Be sure battery master is on **ALL**.
2. Put gear lever on the port side of binnacle in neutral.
3. Be sure engine kill lever pushed in.
4. Crack throttle lever on the starboard side of the binnacle.
5. Turn key, Oil pressure alarm should sound. This light will go out after starting.
6. Press starter button. **Do not crank for more than 10 seconds at a time.** Alarm should stop when engine starts. If not, stop engine immediately using engine kill lever.
7. After engine has started, check that water is coming out of exhaust. (Underneath port stern.) If not, stop engine.
8. Make sure the steering lock is loose.

To stop engine, put in neutral, reduce throttle, **let idle for at least one minute to cool down,** then **PULL ENGINE KILL.** Turn off ignition key and put battery master switch on one battery. **NEVER TURN OFF IGNITION KEY BEFORE KILLING ENGINE.**

WHEN SAILING LEAVE GEAR SHIFT IN REVERSE.

CAUTION

- * Do not press starter for more than 10 seconds without pausing.
- * Never close engine raw water intake except when cleaning the strainer.
- * Let the engine idle for a few minutes to warm-up after a cold start.
- * **ENGINE OPERATING TEMPERATURE WILL BE BETWEEN 170-190 DEGREES AND SHOULD BE TURNED OFF IMMEDIATELY AT 200 DEGREES.** There is a red light (and an audible alarm) to the left of the temperature gauge (on the instrument panel) to sound when engine is hot. If the engine overheats, check the coolant level and the raw water strainer.
- * When under sail, always leave gear lever in *reverse* to prevent the prop from turning.
- * Be careful that ignition key is always on when engine is on.

THIS VESSEL BACKS TO PORT

3. SAILS AND RIGGING

The mainsail halyard is led to the cockpit through a rope clutch on the starboard side. The rope clutch is designed to be closed when raising the halyard and will hold the

halyard secure once raised. Be sure to push the rope clutch all the way open to release the halyard. Raising Mainsail: Be sure the rope clutches are open for the 1st and 2nd reef and the mainsheet and boom vang are released and you are pointed into the wind.

The mainsheet is led to the cockpit on the starboard side. It is secured in a jam cleat marked "Main Sheet". The mainsheet and halyard share the same winch.

The jib halyard is led to the cockpit through a rope clutch on the port side. Visually check the halyard tension after unfurling the jib/genoa. If not secure, re-tension. **DO NOT OPEN THE HALYARD CLUTCH. DO NOT UNCOIL THE HALYARD.**

A spare jib halyard is secured on the port side and led aft to a marked rope clutch on port side.

The jib roller furling line is secured on the port side of the cockpit. The jib can be furled and unfurled with this line. In light winds the genny sheet may be used to aid in unfurling. When sailing with the genoa/jib partially furled be sure the roller furling line is secured on the cleat. Do not furl or unfurl the sail when head to wind. A close reach is best. **WHEN FURLING THE GENNY, PLEASE MONITOR TOP HALF OF ROLLER FURLING DRUM TO MAKE SURE FURLING LINE DOES NOT JAM OR BIND. NEVER PUT FURLING LINE ON WINCH-YOU WILL BREAK THE DRUM & OR THE LINE.**

There are two winch handles in the chart table.

4. DOCK LINES AND FENDERS

Upon your return, please attach the longest dockline on the dockside stern. While sailing, fenders may be firmly secured to the stern rail. Make sure they do not interfere with the stern anchor and hawse pipe. ALWAYS TAKE YOUR DOCKLINES AND FENDERS WITH YOU: NEVER LEAVE THEM ON THE DOCK.

5. SAFETY AND EMERGENCY EQUIPMENT

Heather Jean has seven PFD's (lifejackets). They are located in the port lazarette. There is a throwable flotation cushion in the same locker.

Fire extinguishers are located under the oven and in the port lazarette.

There is a crew-overboard "Lifesling" mounted on the sternrail.

Orange toolbox, spare belt, and wood plugs are in the aft cabin closet. PLEASE DO NOT MOVE THIS SAFETY EQUIPMENT.

Emergency tiller is located in the port lazarette in a red bag. To affix the emergency tiller first remove the steering wheel. PLACE THE WHEEL NUT AND KEYWAY INTO THE TOOL KIT FOR SAFE KEEPING. To access the rudder post remove the deck plate located aft of the binnacle on the cockpit floor. Deck plate key is in the red bag. PLACE THE DECK PLATE IN THE TOOL BOX FOR SAFE KEEPING. Afix the long pole on top of the rudder post and insert the tiller on top.

The boat hook is in the aft berth on the shelf.

6. NAVIGATION EQUIPMENT

GPS (Global Positioning System) can be switched on with the *GPS* switch on the electrical panel. Directions for the GPS are in the chart table. DO NOT FILL THE GPS WITH PERSONAL WAYPOINTS. Many popular destinations are already programmed into the GPS. Take the time to review the book in the chart table.

VHF radio can be turned on with the *VHF* switch. The Sailing Center monitors Channel 16 (the International hailing frequency) and switches to Channel 66(US) for chatter. Please use boat name when calling. The Owner's Manual for the VHF is in the Orientation Guide.

Depth sounder: The switch is also "Nav/Com" on the electrical panel. The Raytheon Owners Manual is in the Orientation Guide.

7. GROUND TACKLE & WINDLASS

The switch for the windlass is located *next to the battery switch above the starboard setee*. Push the yellow switch up for "ON". Press the red button to turn "OFF".

ONLY OPERATE WITH ENGINE RUNNING.

DO NOT PUT CHAIN ON WINDLASS. IT IS NOT DESIGNED FOR THIS PURPOSE.

Bow anchor: 300 feet 5/8" nylon Samson braid and 33 feet chain.

Stern anchor: 300 feet 5/8" nylon Samson braid 35 feet chain.

The anchors are ready to deploy. Caution and care must be used with the *Bruce* anchor on the bow. Because of the size and weight, be careful not to chip the hull or deck when raising and deploying. Be sure to check that anchors are well secured with securing line and can be easily untied. Please take special care to avoid scratching or chipping the boat with anchors and chain. You will be charged for gel coat damage.

8. BILGE PUMPS

The electric bilge pump switch is bottom right on the electrical panel. Make sure breaker is on on the panel and leave switch on “Auto” at all times. If there is a pump failure, be sure to inform the Sailing Center upon your return and use the manual bilge pump.

The manual bilge pump is located in the cockpit above the starboard lazarette. The handle is in the chart table.

9. TOILET

The head is plumbed for direct overboard discharge or holding tank. **DO NOT USE THE HEAD IN THE HARBOR.**

To use the head: Open the “Marine Head Inlet” located *under the sink*. Check to make sure the head discharge is open. This thru -hull is located under the midships part of the starboard cushion in the dinette area. The large black valve should be turned perpendicular to the hull.

The grey Y-valve is located on the base of the starboard dining settee. The long arms of this valve determine the direction of flow. The holding tank is located under the aft starboard dinette cushion

PLEASE PUMP HOLDING TANKS AT LEAST 3 MILES FROM ANY COASTLINE

NO PAPER PRODUCTS ARE TO BE PUT IN THE TOILETS. PLEASE USE THE WASTEPAPER BASKETS

* Never pump head with seacocks closed: you may break a seal.

The thru hull for the sink drain is located *under the sink*.

SHOWER: The shower is located in the head. Pull the black nozzle (wand) straight up. The lever on the shower head changes the flow from stream to shower. The shower sump pump (to drain shower water) has a switch on the main electrical panel (combined with water pressure) and an additional switch in the head. Don't forget to open the exit thru hull before operating the pump. The thru hull is located under sink. The shower sump and refrigerator sump run off the same pump. There is a Y valve under the head sink to direct the pump from shower sump to refrigerator sump.

10. GALLEY

Please read posted directions on the electrical refrigeration. It is to be used ONLY when the engine is running.

The seacock for the fridge is same as shower seacock, the Y valve under the head sink will switch shower and fridge discharge.

The stove and oven operate on propane. The propane tank is located in the starboard aft locker in the cockpit. First open the valve at the tank. Turn on the 'LPG solenoid' switch on the electrical panel prior to lighting the burners or oven. After use, turn off LPG solenoid switch at electrical panel and then close tank to prevent leakage.

To light a burner use matches or lighter. Keeping knob depressed turn to IGN and light burner. Hold knob depressed for 10 seconds so burner will remain lit.

To light oven, turn temperature knob to 'Pilot On' while pushing the "Oven Safety" button. Light pilot light with a match or lighter and hold oven safety button for at least 10 seconds until thermo-couple is heated, which will enable pilot light to remain lit, then set to desired temperature.

The through hull for the galley sink is underneath the galley sink.

The dry storage compartment is ONLY for dry products. DO NOT try to make it a cooler - there is no drain in the bottom.

11. FRESHWATER SYSTEM

Heather Jean has water capacity of 49 gallons. The tanks are located aft (17.5 gal & hot water heater 6 gal.) and forward (26 gal) . To activate, turn on switch on electrical panel. Leave this switch "off" when sailing and/or not using the water pump. The valves to turn from one tank to the other are marked and located under the *aft cabin cushion son the port side of the cabin*. Use only **ONE** tank at a time. Perpendicular with the valve is closed and with the line is open. When one tank is empty, turn off the valve to the empty tank and turn on the new tank. You may need to bleed the air out of the system to stop the pressure pump from running. Open the sink faucets and the air/water combination will "spit" out. When the "tone" of the pressure pump deepens, the system will pressurize.

Hot water is available after the engine is run for 30-45 minutes. It lasts for 3 - 4 hours after the engine is turned off. When plugged into dock, water can be heated by the water heater breaker in the AC panel.

12. INFLATABLE DINGHY

A pump for the dinghy is in the port lazarette. DO NOT TOW DINGHY the tow rings are not designed for the conditions of the Santa Barbara Channel. PULL THE DINGHY UP ON DECK OR DEFLATE. Also, please keep it on deck at night.

13. MISCELLANEOUS EQUIPMENT

COCKPIT CUSHIONS: Please stand them on end with the zippers down on the deck in the main salon. Please do not put them on any cushion or mattress. If they are wet please leave in the cockpit.

COCKPIT SHOWER is located under the walk-thru seat in the stern of the boat. Pressure water must be on for it to function. Remove the walk thru seat.

BBQ is attached to the port stern rail. DO NOT REMOVE FROM STERN RAIL. You must use propane only. Small Coleman propane cans are to be used and charterer must supply them.

FLOPPER-STOPPERS are stowed in the port lazarette. Attach the line to the end of the boom so the top flopper- stopper will be just below the water. Gather together the stoppers and chain, ease the main sheet and pull/push the boom out over the side and gently release the stoppers and chain into the water. Secure the boom out by tying to a stanchion base. Be sure the topping lift is supporting the boom.

WINCH HANDLES (2) are in the chart table.

BUCKET with rope is in the port lazarette.

COMPANION WAY BOARDS are easily stowed *by the engine cover starboard side.* Place the companion way boards with the latch on top so it does not dig into other boards.