

# **"Island Spirit"**

**Welcome Aboard!**

***"No smoking please"***

***And Close portholes in Berth before departure - Every day!***

*Island Spirit* is a 1998 **Camano Troll 28**, powered by a 200 hp. Volvo diesel.

## Specifications:

Length overall 31'  
Length waterline 28'  
Beam 10'6"  
Draft 3'9"  
Displacement 10,000 lbs  
Fuel capacity 100 gal.  
Fresh water capacity 77 gal.  
Holding tank 11 gal.

## Special Features

Keelform hull  
Bow thruster  
Radar  
GPS/Chart plotter  
Depth Sounder (2 total)  
VHF Radio (2 total)  
Inverter  
Am/Fm/CD  
Microwave  
Heater  
Electric anchor windless  
Aqua Pro dinghy w/ outboard

## ENGINE

### *General*

- 1) The *Island Spirit* owner's manual is located in the port side salon under the windows.
- 2) *Island Spirit* is powered by a single 200 HP Volvo diesel engine. The *maximum cruising RPM is 3200* or approximately 12.5 knots. The most economical cruising RPM will be achieved at 1900 or approximately 7 KTS. **Important! Whenever cruising above 2200 RPM be certain to allow the engine's turbo to cool down by running the engine at idle speed for at least 10 minutes. Never shut the engine off without a cool down period.**
- 3) The fuel used is diesel # 2. The fuel tanks have a total capacity of 100 gallons. The fill caps are located port & starboard on the deck. The key is kept in the small drawer to port under the windows (this deck key also opens water and waste ports on the deck). Please use care when filling the fuel tank. **Do not fill water tanks while fueling.**
- 3) The fuel gauge is located on the port side of the helm.

### *Pre - start checks*

- 1) Check the engine oil. The dipstick is located on the starboard side of the engine. Check with the engine cold. A reading between the "add" and "full" mark is satisfactory. Extra oil is located in the engine compartment. **DO NOT OVERFILL.**
- 2) Check transmission fluid. The dipstick is located on the port side top of the transmission. Unscrew the cap, wipe, replace without screwing it down, and remove it again. A reading between the "add" and "full" mark is satisfactory. The transmission uses 15W/40 oil the same as the engine.
- 3) Check the engine coolant level. The overflow container is located starboard side of engine. This container should be @ ½ full when engine is cold. Extra coolant is in the engine compartment.
- 4) Check raw water strainer—clean daily

### *Engine start*

- 1) Turn the battery switch to "ON" (located on instrument panel)
- 2) Turn the key on and start the engine. (preheating is not necessary)
- 3) Allow the engine to warm up. Normal operating temperature for the engine is 175 F. You may warm up underway at a slow speed.
- 4) Engine "kill" is the full left position on the key switch.

## **ELECTRICAL**

### *Shore power*

- 1) 110 V AC is available when *Island Spirit* is connected to a shore facility providing the power.
- 2) The 110 V AC breaker panel is located below the helm to starboard. All 110 V AC is controlled and monitored from this point.
- 3) When connecting *Island Spirit* to shore power, the following sequence is necessary for safety.
  - A) Switch off power at the dock facility and the main AC breaker on the boat instrument panel.
  - B) Plug in the extension cord. Use the proper adapter for the dock facility, if necessary.
  - C) Switch on the power at the dock.
  - D) Switch on the power at the main breaker. If the red light is lit, switch off immediately and contact the marina before continuing.

### *Shore power adaptors*

- 1) 20A and 15A adaptors are stored in the drawer left of the door.

### *Inverter Power*

- 1) The inverter will provide approximately 1500 watts at 110 V AC power when *Island Spirit* is not connected to shore power. It is intended to run the microwave, hair drier, shaver, battery chargers, coffee pot or other small appliances. Do not run portable heaters or other high current drawing equipment. Monitor battery power levels from time to time.
- 2) To use the inverter follow these instructions:
  - A. Plug appliance into the receptacle labeled "Inverter" in the galley.
  - B. Check that the STATPOWER button (located below the wheel on the lower helm station) is on, green pilot light shows.
  - C. You should now have 110 V AC power at the galley outlet by the microwave.
  - D. The inverter runs off the four house batteries so please conserve your usage.

*12 Volt boat power*

- 1) The batteries are charged whenever the engine is running or when plugged into shore power with the "Battery Charger" breaker on the AC panel in the on position.
- 2) The state of the batteries can be monitored by observing the voltmeter on the DC panel or battery test switch on electrical panel.
- 3) Do not switch off batteries when the engine is running.
- 4) All 12V functions are controlled from the 12V DC power panel to starboard of the helm station.
- 5) Cabin lights are 12V DC. The breaker must be on for the lights to work.
- 6) The head operates on 12V DC. The breaker located on the 12V DC panel must be on for it to work.
- 7) The water pressure pump operates on 12V DC. The breaker must be on for water pressure. You must also turn on the "water" switch on the propane/water panel located to the right of the refrigerator.
- 8) The AM/FM/CD operates on DC and the "Electronics" breaker on the 12V DC Panel must be on.
- 9) *Remember, the refrigerator and inverter are the largest drain on the batteries.* It is wise to consider turning off your refrigerator at night while swinging on the hook or not connected to shore power.

## **GALLEY & HEAD**

### *Potable water*

- 1) Fresh water capacity is 77 gallons
- 2) The water pump is activated by 12V DC. The breakers on the instrument panel **and** in the galley must be in the on position.
- 3) Hot water is provided by the engine heat exchanger or when connected to shore power by 110V AC. Turn off the "Water Heater" breaker when not in use—low water in the tanks could cause the hot water heater element to burn out.
- 4) There are two (2) fresh water fill caps, one port and one starboard located mid ship on the deck. Each is labeled "WATER". Keep the water tanks full!

### *Shower & head*

- 1) The hand held shower that comes out of the sink may attach to left hand side above the mirror. The sump pump for the shower is operated by the switch to the left of the wash basin. For those who enjoy a bit of adventure, the hot/cold water hand shower in the aft cockpit can be used. It is a very good system when outside weather permits.
- 2) The sinks (galley & head) drain overboard - no pumping is required.
- 3) The head is electric. Everything flushed through the toilet is stored in a "small" (11 gal) holding tank. Use only marine grade toilet paper in this system. Extra toilet paper is located under the sink in the head. When moored in a marina, conserve holding tank capacity by using facilities on shore.
- 4) Ensure you have thorough instructions on head use to include proper flushing techniques.

### *Oven & stove*

- 1) This part of the galley is operated by propane. The 20 lb. Cylinder is located in the aft deck locker. In order to use the stove you must open the valve on the tank, turn on the "Propane Alarm" breaker on the 12V AC panel **and** turn on the "Propane" switch to the right of the refrigerator in the galley. It is a good idea to keep the valve closed when not using the above appliance.
- 2) When it is necessary to fill the cylinder, remember that it has reverse threads.
- 3) The propane system is protected by an emergency warning detection device located in the galley to the right of the sink.

*Refrigerator*

- 1) The refrigerator operates on both AC and DC. When connected to shore power, the refrigerator will automatically select 110 VAC as the power source. When not on shore power, the refrigerator will switch to 12V DC as the power source. Be certain the appropriate switch on the electrical panel is on.

*Cabin heat*

- 1) The Webasto diesel heater thermostat is located to the port of lower helm next to the settee. Turn on the switch under the thermostat and select the desired temperature. It takes about 90 seconds to produce heat. Note: To avoid erratic operation of the heater you should allow it to operate for at least half an hour whenever in use.

## **Dinghy & Outboard**

### *Tender*

- 1) The dinghy is an 8' Aqua Pro. It has a recommended capacity of 1058 lbs.
- 2) Always wear life jackets in the dinghy.
- 3) The oars are kept secured in the dinghy.
- 4) To use the 4 HP Yamaha outboard motor, mount it on the dinghy and fasten the lanyard to the transom. Open the gas tank vent and the gas valve located on the front of the motor. Make certain that the motor is in "Neutral", Advance throttle on the handle to the "Start" position, close the choke and pull the starting cord. After the motor starts immediately open choke lever.
- 5) The dinghy with **outboard running** cannot be used for anything but transport to or from the boat. If used for fishing or crabbing you are subject to fine by the state.
- 6) Before getting under way be certain to secure the dinghy by attaching the stand-offs **and** the rope.
- 7) Do not tow the dinghy.

## **NAVIGATION AIDS**

### *Charts, parallel ruler and dividers*

- 1) San Juan, Gulf Islands and Puget Sound charts are located in the sliding door locker on the starboard side of the cabin and in front of the lower helm.
- 2) Additional chart books, cruising guides and general interest materials are located in book compartment on the port side of the salon. We encourage you to enjoy and use this material. These books are excellent area guides and have much "local knowledge" to assist in both navigation and planning your adventures.
- 3) The ruler, dividers and other navigation aids are located in port side drawer under the windows.

### *GPS*

- 1) Located at the lower helm station are the Garmin GPS and Sitex Color Chart Plotters. We encourage you to familiarize yourselves with the use of the chart plotter before starting your cruise.
- 2) The Sitex plotter is connected to the Garmin GPS and can be used for cruising in Canadian waters as well as the San Juans.
- 3) Instruction manuals are in the drawer by the door under the settee.

### *Radar*

- 1) Located at the lower helm station.
- 2) Instruction manual is in the drawer by the door under the settee.

### *Autopilot*

- 1) The autopilot controls can be disconnected and moved to the fly bridge if desired.
- 2) If the autopilot is on "Auto" do not try to use the helm since it is overridden and not functional.
- 3) Always maintain a watch whether autopilot is engaged or not. It is imperative to not leave the helm unattended.

### *Depth Sounders*

- 1) There are two depth sounders on board; at the helm station and the fly bridge.
- 2) Instruction manuals are under the settee near the door.



## **SAFETY EQUIPMENT**

### *Fire extinguisher*

- 1) Dry chemical extinguishers are located in the salon and galley.

### *Horn*

- 1) The electric horn button is located on the helm.
- 2) The hand held emergency air horn is located in the sliding Glass doors in the salon, starboard side aft.

### *Life buoy*

- 1) The life ring is located on the fly bridge stern rail.

### *Life jackets*

- 1) The adult life jackets are located under the port side "V" Berth and on the fly bridge under the upper helm station. There may also be various cushions available for floatation on the fly bridge.

### *Flares*

- 1) The flares are located in the glass sliding doors in the salon starboard side aft towards the door.

### *First aid kit*

- 1) The first aid kit is located in the sliding panel locker on the starboard side of the salon.

### *Flashlights*

- 1) Flashlights and additional batteries are located in the drawer under the on the port side under the windows.

### *VHF Radios*

- 1) The radios are located above the helm station and on the fly Bridge under the instrument panel.

### *Bilge pumps*

- 1) The main electric pump is located in the engine compartment. There is also a 12V DC automatic pump, forward in the bilge. Be sure to leave the "Bilge Pump" switch located next to the helm in the "Auto" Position.

## **BOW THRUSTER**

- 1) *Island Spirit* is equipped with a bow thruster which makes maneuvering the boat into tight spots very easy. It is operated as follows:
  - A) Make certain the switch is "On" before attempting to operate the thruster.
  - B) Pushing the "Port" button moves the bow to the left--the "Starboard" button bow to the right.
  - C) The thrusters should only be used when the boat is at idle and/or in neutral. Short bursts of 10 seconds or less are most effective. If the thrusters are run continuously for more than a minute, over heating will occur causing the internal circuit breaker to shut the unit down. If this occurs, wait several minutes for the circuit breaker to rest then resume normal operation.

## **ANCHOR**

- 1) The main anchor is stored on the bow roller fitting. It is a #22 Bruce with 250 Ft of rode (58 Ft. of 5/16" chain attached to 192 Ft. of 3/4" twisted line. Markings starting at 90 Ft are located every 30 Ft.
- 2) A second anchor is found in the lazarette in the aft deck. It is a #13 Danforth with 20 ft. of chain and 200 feet of rope.
- 3) The windlass is electric and can only be operated from the bow where the operator can attend to simple details such as ensuring the anchor deploys properly and on recovery does not swing excessively and damage the boat hull. The main power switch is located under the lower station helm. **Keep hands and clothing away from the chain—fingers have been lost by careless operators!**

## **CLEANING AND MISCELLANEOUS**

### *Cleaning supplies*

- 1) Cleaning supplies are kept in the lazarette.
- 2) All interior and window cleaning materials are kept in the head locker.
- 3) The vacuum cleaner is kept in the salon under the settee seat port side.

### *Wash down*

- 1) After being underway in the saltwater environment, please hose down *Island Spirit* with fresh water.
- 2) Ensure all portholes, windows, hatch and, doors are closed. Don't forget to close the berth portholes.

### *Crab ring*

- 1) The crab ring is normally stored in the lazarette and can be made available in season.

### *Tools and spare parts*

- 1) Spare parts, belts, impellers, head repair kits, filters, etc. are to be found in the brown plastic box in the engine compartment and tools in the two tool boxes under the settee.

### *Miscellaneous*

- 1) Dining table drops to make into an extra sleeping area. Cushions are normally stored in the forward berth. Be certain to lock table supports into place after adjusting height.
- 2) Additional personal storage can be found under the settee.

## **AFTER USE CLEANING REMINDERS**

- a) Remove all trash and garbage
- b) Remove all food from refrigerator
- c) Wipe down tables and counter tops
- d) Wash all dirty utensils and put away
- e) Remove all personal items

Before leaving *Island Spirit* make sure both fuel tanks are full, holding tank is empty and fenders are in place and all electrical panel switches are turned off. Connect to shore power. Check moorings lines for proper placement.

## **IMPORTANT REMINDERS**

- 1) NEVER CONTINUE TO OPERATE THE BOAT WHEN THE OIL PRESSURE ALARM IS ACTIVATED.
- 2) NEVER CRANK A NON-STARTING ENGINE FOR MORE THAN A COMBINED TOTAL OF 30 SECONDS—CALL FOR INSTRUCTIONS.
- 3) NEVER OPERATE THE BOAT WITH THE V BERTH HULL PORT LITES OPEN.

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