Hello sailors and new friends!

We searched for the perfect boat to fulfill our dream of blue water sailing and feel fortunate to have found “Vita Beata” (Happy Life!). She is not only a beautiful boat; she is an Island Packet – a brand known for quality, comfort, safety and excellent performance in all conditions.

Here are some features that we love about Vita:

- The five-foot draft of the full keel makes her well suited for all conditions and hazards you may encounter while sailing the San Juans and beyond.
- In Island Packet tradition, the 440 is cutter rigged with the staysail set on a self-tacking boom. Both headsails are on furlers. This configuration makes the sails more manageable, especially given that all sail controls lead to the cockpit.
- The 2 primary winches are electric, self-tailing winches for easy sail trim.
- The main sail is on an in-mast furler making deploying and furling the mainsail a breeze.
Vita Beata has 250-gallon water and 160-gallon fuel capacity so you spend more time off shore and less time refilling tanks.

Vita Beata has two comfortable private cabins with two spacious in-cabin heads.

Plenty of dry and refrigerated storage for anything you may want to bring onboard.

The salon is very comfortable for gathering in living room style or around the extendable cabin table. The salon couch extends to a double bed.

The hydronic heating of water and living space adds to the comfort you will experience at dock or at anchor.

We love our boat and know you will too!

Carla and Mike

Mike’s cell 208-661-2547
Carla’s cell 509-998-0559

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1. **Vessel Specifications and Information**

**Washington State Parks Annual Permit Decal** – Located on the cabin top, port side.

**Carbon Monoxide Warning Decal** – Located in the salon at the top of the companionway stairs.

**Discharge of Oil Prohibited Decal** – Located in the engine compartment on the starboard wall.

**MARPOL (Marine Pollution) Decal** – Located in the galley on the inside of the cabinet door below the sink.

**Vessel Official Number 121038** (same number as shown on the Coast Guard Certificate of Documentation found in Section 5 of the Charter Guest Reference Manual (white binder). Vita Beata number is located inside the port cockpit locker, on the hull up high near the deck. Look for 3” high numbers.

**AIS MMSI No. 338399689** – Programmed into the VHF radio or AIS transponder to transmit *Vita Beata’s* position and vessel data (heading, speed, vessel name, MMSI number). Refer to Section 11, Electronics/Instruments, for detailed description of AIS and Vita Beata’s capability.

<table>
<thead>
<tr>
<th>Make:</th>
<th>Island Packet</th>
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<tbody>
<tr>
<td>Model:</td>
<td>440</td>
</tr>
<tr>
<td>Year built:</td>
<td>2008</td>
</tr>
<tr>
<td>LOA:</td>
<td>45’9”</td>
</tr>
<tr>
<td>Displacement:</td>
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<td>Fuel Tank:</td>
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<td>LWL:</td>
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<tr>
<td>Beam:</td>
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<td>Draft:</td>
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<tr>
<td>Holding:</td>
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</tr>
<tr>
<td>Water:</td>
<td>260 gallons, water heater 11 gallons</td>
</tr>
<tr>
<td>Engine:</td>
<td>Diesel, Yanmar, 4JH4-TE, 74 hp, propeller: 3 blade 19 RH 11</td>
</tr>
<tr>
<td>Heating:</td>
<td>Webasto DBW 2010 diesel-fired ‘hydronic’ recirculating hot water and fan forced air furnace with 4 outlet ducts</td>
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</table>
### Sails

<table>
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<tr>
<th>Sails</th>
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<td>Main:</td>
<td>Dacron in mast furling *see Nuance notes</td>
</tr>
<tr>
<td>Genoa:</td>
<td>Dacron furling</td>
</tr>
<tr>
<td>Staysail:</td>
<td>Dacron furling</td>
</tr>
</tbody>
</table>

### Electronics:

**Sailing Instruments:** Raymarine ST60+

**Navigational Equipment:**

- **Compass:** 5” Ritchie
- **Auto Pilot:** Raymarine ST7002 Smart Pilot
- **Depth Sounder:** (2) Raymarine E-80, Raymarine ST60+
- **VHF Radio:** Icom IC-M504 VHF with an external Icom IC-M504 VHF
- **GPS, Radar and AIS:** (2) Raymarine E-80
- **Knotmeter, Log, wind speed and direction:** Raymarine ST60+

### Cabins:

- **(2) queen, forward and aft**
- **Headroom:** 6’5”
- **Heads:** 2, forward cabin and aft cabin (shares with salon)
- **Refrigerator/Freezer:** Each large, top loading
- **Stove:** Force 10 propane, 3 burner with oven and broiler
- **Microwave:** Tappan
- **Sound:** Coming soon

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**EMERGENCY CONTACTS:**
Vita Beata Maintenance Team: MAZ Ocean Pacific 954-253-4005
San Juan Sailing 360-671-4300

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### 2. What is unique about Vita Beata

There are a few things about Vita Beata that are not ‘typical’. These are things that may require special attention or where it may be best to deviate from customary operating procedures. We have listed some here because we believe they will help you plan your charter.

**In-Mast Furler**
The mainsail uses an in-mast furling system. **Two IMPORTANT nuances with an in-mast furling system:**

1) Unfurl the mainsail **after** the genoa and/or staysail; the genoa and/or staysail is always first out,
2) Unfurl and furl the mainsail while on STARBOARD TACK only.

There is a mark on the outhaul line showing when to stop unfurling the mainsail. Please do not exceed that line; otherwise, the main will extend too far decreasing the performance of the sail.

Engine Exhaust
The engine exhaust is on the centerline of the boat transom – avoid towing the dinghy on centerline. With the engine running you will notice there are two streams of water coming out of the transom of the boat. This is normal. One is engine exhaust cooling and the other is heat exchange cooling.

Bow Thruster
Bow thrusters are necessary to maneuver an Island Packet in tight situations due to the full-keel. The engine must be running to use the bow thruster. It is very important to operate the bow thruster in short 3 second bursts, otherwise you will deplete the batteries and it will immediately stop working. Turn the bow thruster on by pressing the two ‘ON’ buttons at the helm simultaneously. Once on, a light will activate. Push the toggle in the direction you want the bow to move. Turn off bow thruster by pressing the OFF button. Note: the bow thruster will turn off after a short period of non-use; be sure they are on before needed.

Handling Characteristics
Vita Beata handles well under sail and power, especially under high wind and rougher water conditions, because she is a heavy displacement, full-keel, blue-water sailboat and her handling characteristics reflect that. She will track well. Vita Beata will carry way even after shifting into neutral. Extra care should be taken while in reverse, have bow thruster turned on and ready.

Battery capacity
There are six batteries on board. Recharge batteries when the voltage dips to 12.2 on the DC charge meter at the nav station.

The batteries are recharged one of two ways: 1) start the engine, or 2) connect to shore power. The battery switch for the house battery bank is located on the starboard settee footwell just forward of the chart table. The engine start battery switch is in the aft stateroom on the forward face of the berth.

Vita Beata is equipped with three solar panels that will feed the batteries all the time. It is important to still check the battery capacity and recharge with the engine or shore power when the voltage dips to 12.2%.

Heads and holding tanks
Be sure to switch the Pump Fuse Block power ON at the electrical panel in the nav station, along with the switches for the HEAD FWD and the HEAD AFT. The Vacu-Flush heads (similar to an airline toilet) are equipped with a step lever that opens the bowl to dispense waste. When you lift your foot off the lever, the bowl will close and will self-fill with a little BIT of water. Gentlemen, please sit down when using the
head! Absolutely no toilet or feminine products down the toilet paper. THIS WILL PLUG THE HOSES AND CAUSE YOU MISERY! Put used toilet paper and feminine products in small plastic bags and then put them in the trashcans in each head.

**Companionway Entry Latch and Hatch Board Operation**
The companionway hatch has three horizontal boards. When closing, insert the boards with the tiny hole on the left side of each board facing out. Once the three are in place, you may shut the overhead hatch. When not in use, please store the hatch boards in the protective fabric bags found in the aft cabin closet.

**Salon, Galley, Stateroom and Head Lighting**
Turn the CABIN LIGHTS PORT, MID and STBD switches on at the DC panel. The individual controller for the galley overhead lights is on the starboard side of the companionway. The controller for the salon overhead lights is above the trash receptor that is on the port side of the sink cabinet. The lighting fixtures in the salon and cabins can be turned on manually at each fixture. The lighting fixtures over the sinks in each head can be lighted by moving the light lens to the right.

The controller for the forward cabin is on the side of the port side cabinet in the cabin. The controller for the aft cabin is on the side of the port side cabinet in the aft cabin. Turn on the aft head light above the sink by sliding the light lens to the right. The light in the forward cabin head is under the cabinet.

**Salon Table**
The salon table folds up and out of the way when not in use. To open the table, pull the pin to release the table and put the leg carefully in the metal receptor hole so that you don’t scratch the wood floor. To extend the table full width, unfold the top and use the two removable legs with suction cups that are stowed in the salon hanging locker on the port side next to the forward cabin door. Please be careful using the table in an extended manner, the suction legs can slip causing damage to the table.

**Forward Cabin and Head doors**
These two doors are secured open by latches located at the bottom backside of the door. They MUST be manually unlatched. You CANNOT close the door without first unlatching these doors manually. This is a bit of a pain, though please take care with these doors so they don’t get damaged.

**Pump Fuse Block**
This switch is located in the DC panel of the nav station and needs to be on to use the fresh water system, including toilets, showers and sink faucets.

**Shower Sump Pump Operation**
Be sure to turn on the Pump Fuse Block on at the DC panel at the nav station before using the shower. Each shower has a sump pump switch in the shower to engage the pump while using the shower. Allow the shower pan to partially fill up before turning on the pump so that the pump is not running dry.
**Storing fenders and dock lines**
The fenders and dock lines can be stowed in the port side of the anchor locker just aft of the windlass or in the cockpit lazarette. (NOTE: Stowing fenders on the starboard side of the anchor locker will interfere with the anchor chain.)

**Galley Sink Faucets**
There are three faucets in the galley sink, all are fresh water. The faucet on the right is filtered drinking water. The other two are fresh water. The hand pumped faucets is available in the case you lose or our low on power.

### 3. Emergency/Safety Equipment

**Bilge Pump Switches and Manual Handle** - The manual bilge pump handle is located in the starboard aft lazarette. The bilge is located under the sole in the center of the salon. The automatic bilge switch is located on the floor well at the salon settee closest to the nav station. **Please leave this switch set to Automatic at all times.** You may use the automatic bilge to drain the bilge manually by switching the switch to manual; then **RETURN** the switch to automatic when done. Water will backflow into the bilge –this is normal. Insert the manual pump handle into the rubber gasket starboard of the helm to physically pump the bilge without electrical power.

Note: in the event of serious flooding, if water rises above floorboards, you can use shower sump pumps also.

**Carbon Monoxide Detectors** - There are two CO detectors, one under the nav station and the other on the side of the bed in the aft stateroom.

**Cockpit Cushions** In case of MOB, quickly throw anything that floats overboard, including cockpit cushions.

**Emergency Tiller** - Long curved pipe stored in starboard lazarette.

**Fire Extinguishers (3)**: The first is on the port wall next to companionway stairs, the second is in the forward cabin behind the cabin door, the third is in the aft cabin on wall behind head door.

**First Aid Kit** In starboard salon upper cabinet.

**Flares (3)** In green mesh bag in the starboard salon cabinet just forward the nav station.

**Flashlights** - One mounted by the companionway door and the second is mounted at the nav station.

**Horn, handheld** - In green mesh bag in the starboard salon cabinet just forward of the nav station.
**Lifesling** - Please review the instructions for use on the face of the case. The lanyard is secured to the boat so that tossing the floating harness allows it to tow behind the boat like a ski tow rope. Circling the person overboard will draw the recovery line near them.

**PFDs** - In the stateroom hanging lockers. Inflatables: please check for “green” visible at bottom of clear canister before each cruise. That verifies the auto-inflate function when immersed. We wear these at all times when working on the deck and often in the cockpit depending on conditions.

**Propane** - Tank is in the aft, starboard propane locker. Turn the knob on propane tank to open. The propane solenoid switch is on the outside of the sink cabinet in the galley. There is also an LP gas fuse switch on the DC System panel on the nav station. **BOTH SWITCHES MUST BE ON** to use the propane and, for safety, switch BOTH switches off when not in use.

**Tapered Plug, Universal Foam Orange StaPlug** - In green mesh bag in starboard salon cabinet just forward the nav station.

**Tools and Spares** - In the starboard settee cushion storage closest to the nav station.

**Windlass Clutch Release/Tighten Wrench** - Hanging in bow anchor locker.

**VHF Radio** - The VHF base unit is at the nav station and the handheld corded remote is to be plugged in at the helm. Plug in the corded handheld VHF remote at the helm **BEFORE** turning the VHF switch to ON. Otherwise, the hand held will not work.

**4. Anchors**

- Main anchor, Delta 44# Plow with secondary anchor.
- Windlass controller has two-foot controls outside anchor locker. **CAUTION**: operating the windlass can be dangerous if you are not careful; be sure not to get body parts or clothing near an operating windlass.
- Windlass breaker on the panel on lower starboard settee must be on to raise or lower anchor.
- 200’ of chain marked with 1 piece of yellow line at 25’ intervals and 2 pieces of yellow line side by side at 100’ and 200’. At 200 feet of chain, it will switch to a 100’ of rope rode.
- AFTER laying anchor at your appropriate scope and **BEFORE** setting the anchor, use the snubber line to prevent damaging the windlass.
- Windlass wrench is hanging in the anchor locker on the port side.
- **Do not pull boat forward on the windlass under any circumstances.**
- Turn ON the Anchor light at the DC panel on the nav station when at anchor overnight.
- There is 600’ of line for shore tying stored in the cockpit lazarette. Use the wooden mop handle for spooling line in and out.
5. Barbeque Grill

- Tank with shut-off valve is located in the starboard propane tank locker.
- Solenoid switch in the galley and the LP gas switch at the nav station must be on.
- Remove plastic grill scrubber before lighting and replace when cool after use.
- Use long handled BBQ lighter to light grill.
- Turn off solenoid switch and LP gas switch valve after use.

6. Batteries/Charging/Inverter

- Keep batteries above 12.2V at all times.
- Check the house bank voltage at night before going to bed, and if it is close to 12.4 volts, recharge the batteries. Refrigeration can be kept on overnight, but if the battery voltage is below 12.4 volts, turn the Ice Box breakers off on the DC panel for the night. Then you can charge the batteries first thing in the morning and turn the Ice Box breakers back on. It will usually hold the cold for the night.
- When underway with engine power the batteries are automatically charging.
- At anchor, batteries can be charged with engine in neutral at 1200 RPM.
- While off shore power, the DC battery powered systems (see switches on DC panel) can only be powered using the inverter. To turn on the inverter, switch the inverter on in two places: 1) the inverter switch on the Phoenix Control Panel on the bulkhead forward of nav station below the heater thermostat, and 2) the white inverter bar on the AC panel section (by sliding the protective cover over the Shore Main switches). While using the inverter powered battery systems when engine is not running, be sure to monitor the battery levels and recharge when batteries get to 12.4V.
- There are three battery voltage readouts on Vita Beata, one meter marked ‘Line Voltage’ on the 12 VOLT DC SYSTEM panel and two LCD readouts to the right of the Raymarine Monitor at the nav station. The battery voltage is displayed on the Blue Sky monitor and the voltage can also be found by pressing the “V” on DC Meter panel.
- When the engine is running the batteries will be automatically charging. When on shore power, you charge the batteries by setting the battery charging switch on the AC panel (left-hand side) to “ON.” We highly recommend charging the batteries whenever on shore power.
- Vita Beata is equipped with 3 solar panels that automatically charge the batteries - no action is required by charter guests. The panels, combined with motoring and/or plugged into shore power will normally keep the batteries topped up.

SAFETY REMINDER – NEVER turn off the batteries or the ignition key when the engine is running as this will seriously damage the electrical system. If you have small children on board, switches can look like something fun to play with. Please make sure no one switches off the batteries when the engine is running.
• Shore Power: *Vita Beata* is equipped with 50-ft and 25-ft shore power cords stored in the starboard lazarette. The shore power cord attaches in the cockpit, starboard and aft of the helm. When on shore power, be sure to turn on SHORE MAIN on the AC System panel (green light above bar will be illuminated). Before connecting or disconnecting shore power please turn off the AC outlets and battery charger switches on the AC panel.

**SAFETY REMINDER** – To connect to shore power, first connect the power cable to the boat then to the shore power junction box. To disconnect shore power, reverse the process – detach the cable from the shore power junction box first then disconnect it at the boat.

• Inverter: *Vita Beata* is equipped with an inverter that provides AC power for the outlet plugs when you are operating on battery power. The inverter must be on in two places: 1) the switch on the side panel, and 2) the white inverter bar (by sliding the protective cover to the left over the ShoreMain switches. Monitor battery levels while using the inverter. Recharge batteries when voltage meter reaches 12.4V. The microwave (as well as hair dryers) should not be used when on battery power as it quickly drains the batteries. When back on shore power be sure to turn off the inverter switch on the side panel. The inverter switches must be off and the protective cover moved to the right in order to switch Shore Main on.

7. Berths and Bedding

• *Vita Beta* has two cabins with queen size beds, hanging lockers and storage areas. There are ample sources of lighting in each berth with overhead and individual lights.

• All hatches come equipped with sliding pull-out covers and sliding pull-out screens.

• The aft cabin has its own door to the aft head for additional privacy and convenience.

• The settee in the main salon converts into a full-size bed. Remove the cushions from the starboard settee and then remove the pin and pull the extension out. Replace the pin to hold the extension in place. Replace the cushions to create the bed.
8. Dinghy and outboard

- 10' fiberglass hulled inflatable dinghy with 2.3hp Honda outboard.
- In harbor or at anchor always keep dinghy tight to the port stern cleat so as not to let dinghy near exhaust ports.
- Please don’t tow with outboard attached to dinghy or leave outboard on the dinghy overnight.
- Stow outboard on transom rail after each use.
- Dinghy air pump is located in dinghy’s forward compartment.
- The 2.3hp Honda outboard is air cooled 4-stroke and takes straight gas.
- The spare 1-1/4 gallon red gas can is filled 2/3 full (for expansion in hot weather) by our staff. We will top it off when you return the boat, no charge. We stow it in the dinghy, tied to the transom. For safety, please never store gasoline in a compartment on board Vita Beata.
- Transferring the outboard to the dinghy is best accomplished by having one crewmember in the dinghy to receive the outboard from another crewmember on deck, rather than a single crewmember trying to get off the boat and onto the dinghy with outboard in hand.

**Starting the Outboard:**

1. Open the fuel valve by pushing the fuel valve lever (starboard aft corner of the outboard) to the ON position.
2. Pull the choke all the way out (front corner of the outboard).
3. Open the air vent on the top of the fuel cap by turning the indicator half way between ON and OFF. We have discovered that turning the indicator all the way to ON will sometimes cause the valve to close. Unscrewing the fuel cap may be required to provide sufficient air for starting.
4. Make sure the U-shaped kill clip (attached to the red or gray lanyard) is clipped into the red kill switch knob (port forward corner of the outboard).
5. Turn the throttle handle to the start position. There is a friction thumb screw that can be tightened to hold the throttle in the start position.
6. NOTE: The motor has a centrifugal clutch (no gear shift) – the propeller will spin when the RPM is above idle. Please make sure the dinghy is securely tied to Vita Beata as the dinghy will surge forward when the motor first starts up at the starting RPM then will stop when you turn
the throttle back to idle RPM after warmed up
(about 10 seconds).
7. Pull the starter cord quickly then repeat a few times if needed until the motor starts. (You
shouldn’t have to pull it more than 5 times.)
8. Slowly push the choke back in shortly after the engine starts (after about 5 or 10 seconds). If
the motor starts to run rough then ease the choke back out for another 5 seconds and then try
pushing back in. Turn the throttle back to idle.

- **While Outboard Is Running:**

1. Keep the red lanyard kill clip connected to your belt or PFD while operating.
2. The motor has a centrifugal clutch (no gear shift) – the propeller will spin when the RPM is
above idle - just throttle up to go forward and throttle down to stop. If you want to go in
reverse just swivel the outboard around 180 degrees and throttle up.
3. Note that you will only have steerage when the propeller is driving the boat (throttle above
idle RPM).

- **Arriving at the Beach**

1. Before you hit the beach and while still in a few feet of water, stop the motor by pushing in the
red kill switch knob (where the kill clip is clipped in). Close the fuel valve and vent lever (the
motor will leak fuel when tilted if these are not closed. Also, the carburetor will be flooded
making it hard to restart the motor).
2. Tilt the motor out of the water by pulling the motor head forward until it stops – you should
hear a “click” as the tilt support locks into place. Note that the motor is held in the lowered
position by friction from large a rubber clip that grips the shaft. Very little force is needed to
pull the motor shaft out of the clip.
3. To tilt the outboard back in the water, first tilt the motor head slightly forward to take the strain
off the tilt lock then release the tilt lock by lifting up the black handled lever below the motor
head on the starboard side of the shaft.
4. Please do not drag the dinghy up the beach over sharp rocks and barnacles.
5. Secure the painter to ensure the dinghy doesn’t float away on a rising tide.

- **When the Outboard Is Not in Use:**

1. Put the outboard back on the outboard mount on Vita Beata’s stern rail and tighten both
bracket screws.
2. Put the combination lock back on the bracket screws.
3. Close the fuel valve and fuel cap vent.
4. Put the cover back on the motor head.

- **Dinghy outboard troubleshooting:**

1. Gas on
2. Cap vented
3. Kill switch key in place
4. Choke open
5. Throttle in start position and pull vigorously

9. Dodger, Bimini and Connector Panels
   - If early morning dew fogs the dodger glass, or salt crystals from spray accumulate, rinse off with a pan of fresh water from the galley (salt crystals may need a second splash). Do not wipe inside or out. Do NOT apply aerosol sunscreen, upwind or close to the dodger. Sunscreen will destroy the glass.
   - If you wish to use the connector between the Bimini and the dodger (gives full coverage over the cockpit), zip the connector to the dodger before attaching the connector to the Bimini. Start the zipper in the center and work out to each side.

10. Electrical
    - The AC and DC panel breakers use the color dot indicators shown on right:
    - Primary shore power breaker is on the left side of the nav station electrical panel adjacent the inverter switch (SHORE MAIN).
    - DC MAIN breaker is on the electrical panel under 12 VOLT DC SYSTEM.
    - The outlets, water heater and battery charger switches on the electrical panel are under 120 VOLTS AC on the left side of the panel.

Switches and Controls on the Electrical Panel

The AC and DC electrical panel is in the starboard side at the nav station.
Here are some things to note:

- **Shore Power**: All the AC controls are along the left side of the panel.
  - Use SHORE MAIN switch to **TURN ON** AC power **AFTER** you connect to shore power and **TURN OFF BEFORE** you disconnect from shore power. When the AC is ON, a green LED light is illuminated above the white color bar at the left-hand corner of the panel.

- **Water Heater**: Keep the water heater off unless you are under shore power.

- **Battery Charger**: Turn ON the battery charger switch on AC panel whenever connected to shore power. It **must** be “ON” to charge the batteries while on shore power.

- **AC outlets**: Turn on the Outlets Port and Outlets Starboard switches to turn ON the electrical outlets located throughout the boat, including the microwave.

- **Bilge Pump**: Always leave the bilge pump setting in “Auto.” Test the pump daily by switching to manual and listening for the pump to run, then return it to the “Auto” setting.

- **Water Pump**: The water pump switch is located on the DC panel labeled ‘Pump Fuse Block’ and is necessary for all freshwater functions:
  - Fresh water pump
  - Sink faucets
  - Shower sump
  - Fresh water wash down
  - Water to flush toilets

- **Forward and Aft Heads**: On the DC panel, switch on the Head Fwd and Head Aft in order for the head pumps to work.

- **Cabin Lights**: There are three DC power switches that must be turned on for cabin lighting: Cabin Lights Port, Cabin Lights Mid and Cabin Lights Stbd power the LED lights located throughout the boat.
• **Refrigeration Units**: Leave the Ice Box Right and Ice Box Left switches “ON” whenever on the boat, UNLESS the house battery charge level drops to near 12.4V and you are unable to run the engine or connect to shore power. In that situation, turn the switches off. Your provisions will stay cold overnight. (See Section 18 for detailed refrigeration operation)

• **Navigation Instruments**: Turn on Electronics, Autopilot and VHF switches to activate the Raymarine electronics, instrumentation, and multi-function display in the cockpit. This switch also provides power for the radar, depth sounder, knotmeter and autopilot.

• **Anchor, Running, Bow and Foredeck Lights**: When anchored or mooring, turn on the Anchor Lights at dusk (located at the top of the mast). When motoring at night, turn the Bow Light on, it is the steaming light. When sailing at night, turn on the Running Lights.

11. **Electronics/Instruments**

*Important*: To power up electronics, FIRST be sure that the white VHF wired remote microphone is plugged into the helm. Then at the DC panel, turn on the VHF, Autopilot, and Electronics switches.
A.I.S. (Automatic Identification System):

- Vita Beata transmits her position and data via an AIS signal as well as receives AIS signals from other vessels equipped with AIS transmitters (Commercial vessels are required to have AIS, recreational vessels are optional).
- The AIS functions through a dedicated transceiver unit. The Electronics switch on the DC panel must be turned on for the AIS to function.
- AIS information supplements marine radar, which continues to be the primary method of collision avoidance for water transport.
- AIS requires each vessel to have a 9-digit MMSI (Maritime Mobile Service Identity) number to transmit position and data. Vita Beata’s MMSI number is 338399689.
- The main Raymarine screen must be turned in order for the secondary screen at the helm to work.
- AIS vessels appear on the chart plotter screen as triangles. The triangle points in the direction that the vessel is moving and if move the cursor over the screen over the triangle the system will give you additional information (such as name, size, speed, bearing, etc.) about the vessel. The system also transmits this same type of information about Vita Beata to other vessels with AIS. The AIS is an added safety feature for coordinating search and rescue and also allows San Juan Sailing/Yachting to provide faster assistance in case of unplanned maintenance issues as well as alert San Juan Sailing of Vita Beata’s return approach. Vessels with AIS can be viewed in real-time through mobile device apps and websites like www.marinetraffic.com that will reveal Vita Beata, course, speed, track, and other information.

VHF Radio Communications

The VHF marine radio is located next to the nav station in the main cabin. Turn on the unit using the power button. Channel 16 is the default setting, allowing you to monitor the US Coast Guard (USCG). Leave the radio tuned to Channel 16 in case an emergency broadcast or request for assistance is issued.

NOTE: The wired remote is kept at the nav station and needs to be plugged in at the helm prior to turning on the VHF radio. There is also a portable handheld VHF radio that is stowed in a charging cradle under the nav table. Take the portable radio when going ashore to communicate with crewmates on the boat or call for assistance. This radio is also helpful when anchoring. Remember to switch both VHF units to a non-emergency channel, like Channels 68, 69, or 72 for non-emergency communication.

12. Engine

- Maximum RPM is 2800. Maximum RPM must not be sustained for more than 10 minutes.
- Cruising RPM is 2000-2500. Comfortably cruise at 6-7 knots at about 2200 rpm. Idle is around 900 RPM.
The fuel tank holds 160 gallons of diesel providing a considerable range.

Access to the engine for checking the oil is through a small door in the galley.

**Engine Inspection Point**

- **Check oil level** – If the oil level appears to be low call MAZ Ocean Pacific 954-253-4005 for guidance. Check diaper for fluids, if any notify MAZ Ocean Pacific. For longer charters (> 7 days), check the oil level once a week.

- **Check the coolant level.** Anywhere between the two lines (high and low) on the overflow reservoir is where you want to be.

- **Check the fuel level** - the gauge is in the sole locker in the salon. The fuel gauge should show full at the beginning of the charter.

- **Check Raw Water Strainer** Located in the sole forward of the fuel, inspect with flashlight (shine through glass bowl). If clogged, contact MAZ Ocean for guidance.

**IMPORTANT:** In case of an engine overheat alarm, check for eelgrass clogging the strainer and contact MAZ Ocean.

**Starting the Engine**

A key is needed for starting process the engine. The main battery engine switch, located on the aft berth near the floor, must be in the “ON” position to start the engine.

- Ensure that the throttle/gearshift is in neutral.
- Insert and turn the key clockwise.
- The 2 red lights for oil and water pressure will illuminate. A buzzer alarm will sound until the engine is running.
- Push the **black “START” button** to the left of the key – hold the button until the engine starts (should only take 2-3 seconds). Do not crank for more than six seconds.
- Listen/look for water/exhaust discharging from two through-hulls the aft of the hull. If water is not in the exhaust **immediately** shut the engine down and contact Maz Ocean.

**OPERATING TIPS:**

**Warm up:** Allow at least 5 minutes of warm up before placing a load on the engine. We recommend targeting 1000-1200 RPM for warm-up.

**Battery Charging:** Disengage transmission and rev engine to 1200-1500 RPMs to charge battery. We recommend 1 hour in the morning and 1 hour in the evening to satisfy battery needs.
**Disengage engine** transmission by pushing center button in throttle as you move throttle handle forward to increase RPMs. Returning to neutral engages engine.

**Engaging the transmission** when shifting from forward to reverse and vice-versa, pause ~2 seconds in the 12 o’clock neutral position before shifting gears. Shifting smoothly not erratically is best for Vita Beata.

Note: We recommend keeping the engine speed under 2500 RPM for most operating conditions.

**Shutting Down the Engine**

- Return the throttle lever to the neutral position.
- Allow the engine to idle for a few minutes in neutral to cool down.
- Press the **red** “OFF” button to the right of the ignition switch, which will stop the engine.
- The 2 red lights for oil and water pressure will again illuminate after the engine has stopped. A buzzer alarm will sound until the key is turned off.
- Turn the key counterclockwise, remove, and replace back in the nav station table.

**SAFETY REMINDER** – NEVER stop the engine by turning off the battery switch or ignition key. Doing so will seriously damage the diodes on the alternator and the batteries will no longer charge. **ALWAYS USE THE RED OFF BUTTON TO KILL THE ENGINE.**

**Engine Overheating**

- If the engine overheat buzzer sounds while the engine is running, shift to neutral and look for water coming out of the exhaust at the transom (there should be two streams of water). Call MAZ Ocean Pacific if there are not two streams of water coming out.

**Loss of Oil Pressure or Coolant**

- If the engine loses oil pressure, the warning buzzer will sound and the oil icon warning light on the tachometer will light up. If the oil light is on, shut down the engine, check the oil level, and contact MAZ Ocean Pacific.

**OPERATING TIP: Bottom line – you are on vacation!** If the engine is giving you problems, call MAZ Ocean for assistance. They have repair teams in the Islands to assist you.

**Boat Handling with the Engine**

- Vita Beata has a full keel so while she is not as responsive as a fin keel sailboat, she is still able to turn in a narrow radius.
• San Juan Sailing offers free boat handling instruction before you leave for your charter.
• Spending 30-60 minutes practicing getting in and out of the Bellingham marina can be a great experience.
• The bow thruster should not be used as a substitute for good boat handling skills but can be used as a great aid in low-speed maneuvering.

**Forward**

Because the propeller is just aft of the keel and close to the rudder, wash from the prop acts on the rudder almost immediately, so not much of a delay should be anticipated when maneuvering in tight spaces. A short burst of throttle will direct water at the rudder, which if already turned, will result in a turn with little forward movement – a strategy that can be handy when turning in confined spaces.

**Reverse**

*Prop walk* is to port in reverse. With the shifter in reverse Vita Beata will not turn as quickly as a fin keel sailboat. When driving in reverse make short power bursts followed by placing the shifter into neutral. This will negate most of the prop walk. Grip the wheel firmly when in reverse; water pressure on the aft edge of the rudder can push the rudder over to one side, which is hard on the steering mechanism (and your arms).

**Docking**

• Vita Beata will not stop quickly when you put the engine in neutral. Like all heavy boats, Vita Beata will carry way even with the engine in neutral.
• Unless there are high winds, we typically motor in the marina in Idle-Forward, which will produce a boat speed of less than 3 knots. About 3-4 boat lengths from our target dock, we shift to neutral and glide in. Use of a short burst in reverse may be necessary to stop her after entering a slip. Keep the engine on until the vessel is secured at the dock.
• Vita Beata is very beamy (14’). It helps to have someone assist the helm from the bow or the widest point of the beam - otherwise it is difficult for the helm to determine whether the boat is too close or too far from the dock.
• Use the bow thruster to assist the helm in turning into or out of slips – in calm conditions with no cross current, Vita Beata can be pivoted with the thruster to align with a slip.
• The full keel makes Vita Beata very sensitive to cross currents – be aware of currents, particularly if they are running in a direction different from the wind.
• Use a spring line from the mid-ships cleat as the primary control after stepping ashore – with this line secure, Vita Beata can be aligned in the slip using the bow thruster and/or bow and stern lines.
• We always have someone on deck with the roving fender available “just in case.” You can stow the fenders in the lazarette or stern rail. Some extra dock lines are located in the starboard
cockpit locker.

**SAFETY REMINDER:** It is very difficult for people holding lines on the dock to stop the momentum of a heavy cruising sailboat, instead use a dock line on a cleat to stop movement. Please, no crew should jump to the dock. If you cannot step off calmly back-up and try again.

When coming into our docks in strong winds, or if you would just like a little assistance on arrival, hail “San Juan Sailing” on VHF Channel 80. They will be glad to offer some coaching and/or catch your lines. In fact, most marinas in the Islands will help you if you hail them and ask for assistance. Asking for docking assistance is a sign of smart seamanship.

**SAFETY REMINDER:** Whenever you are departing or arriving at the dock have a crew member designated as the “roving fender” teammate. If you are going to accidently “touch” a boat or other object, lower the fender to the point of contact.

**Using the Bow Thruster:** The bow thruster allows you to control bow alignment using short 3 second bursts when docking or departing.

### 13. Stereo System

New System coming soon!

### 14. Fuel

- The fuel gauge is under the sole in the salon.
- Refuel when gauge reads ½ full.
- Fuel fill is on port side
- The tank holds 160 gallons of diesel fuel.

**Fueling:**
The attendant will give you an absorbent pad to put over the nozzle to prevent spilling until the nozzle is in the fill receptor. Before removing the nozzle, hold the pad on the base of the nozzle to absorb any drops. Reaching for the pads after the spill is too late.

Please fill very carefully because it is difficult to tell when the tank is full. You need to put your ear to the tank, fill quickly listening for the foam and noise filling and stop immediately when the pitch rises.

### 15. Heads and Holding Tanks

- **Extremely important:** Only what has been eaten goes in the toilet! Marine toilets plug very easily. Put soiled tissue, tampons, feminine napkins in the trash cans in each head. SJS provides plastic bags to use for this purpose.
• Holding tank for the black water is 55 gallons and is not accessible.
• Grey water from the two sinks and the shower is discharged straight overboard and does not drain into the holding tank.
• San Juan Sailing staff will discuss holding tanks and pump outs on your arrival. PLEASE don’t over fill the holding tank as leaking sewage is most unpleasant!
• Please note that in U.S. waters it is illegal to discharge holding tanks overboard within three nautical miles of the shore. While in Canadian waters outside of bays and harbors overboard discharge is allowed. Be sure to check current laws before discharging as the penalties for illegal discharge are high.
• Both the black water holding (55 gal) and the potable water tank (160 gal) levels can be accessed by the Acu-Gage meter located on cabinet above trash can (Note that holding tank sensors are notoriously inaccurate). Touch one of the arrow keys to toggle between the two tank levels. There is a high and low level indicator light in the upper left corner of the meter panel. This panel draws very little power and may be left “ON” all the time.

Emptying the Holding Tank:

1. Pumping Out Using a Shore Facility:
   a) Check that the Macerator/Deck selection valve (grey Y-valve) is directing flow to the Deck hose (see photo on right). The valve is located in the forward stateroom just aft of the head door below the floorboard. The valve handle should cover the Macerator hose arrow.
   b) The deck cap tool is stowed in the chart table. The Waste cap is located on the port deck near the shrouds.
2. Pumping Overboard Using the Macerator (only where legal to do so!):
   a) A macerator pump is used to dump black water waste; the circuit is on the DC panel on the nav station. Please be aware of the dumping laws in the US and Canada. There are very high penalties for illegal dumping.
   b) Open the macerator through-hull valve located in the salon just aft of the forward stateroom door below the floorboard (see photo below).
   c) Check that the Macerator/Deck selection valve (grey Y-valve) is directing flow to the Macerator hose (see photo on right). The valve handle should cover the Deck hose arrow.
d) The Macerator pump is activated by flipping on the Macerator breaker on the DC panel, then flip on a second switch located adjacent to the macerator through-hull valve.

e) Listen to the pitch of the macerator pump (the pump is located near the Y-valve located in the forward stateroom just aft of the head door below the floorboard – remove the access cover so you hear the pump sound). When the pitch rises, the tank is empty and the macerator pump should be turned off. Turn off the breaker on the DC panel as well.

f) Close the macerator through-hull valve.

Head

- Lift the handle with your foot to fill the bowl with a bit more water. After use, shut the lid, push down on the lever and release. The bowl will quickly drain and then will fill with a little water after use. This is normal.
- When at sea, gentlemen please be seated - it’s safer in a seaway and keeps the head much cleaner under all conditions.

16. Heater

- Webasto hydronic with digital thermostat located above the inverter control at nav station
- Individual fan speed controls can be found in each heating zone
- Turn on power to heating unit at DC panel (CABIN HEATER)
- Set temperature at thermostat
- Fans need to run to heat zones - The heater needs to run for a few minutes before you will feel hot air coming out of the fans.
- Also heats hot water tank after 30-minute run
  - Running all night might wake light sleepers

17. Lighting

- Turn the cabin PORT, MID and STBD switches on at the DC panel.
- The individual controller for the galley overhead lights is on the starboard side of the companionway.
- The controller for the salon overhead lights is above the trash receptor on the port side of the sink cabinet.
- The lighting fixtures in the salon can be manually turned on at each source.
The controller for the forward cabin is on the side of the port side cabinet. The controller for the aft cabin is on the side of the port side cabinet.

The main head light switches are on the cabinets below the sink. The secondary light each head is below the upper cabinet in the forward head and on the stern facing wall in the aft head. These lights are turned on by sliding the light lens to the right.

18. Refrigeration and Freezer

- Ice box circuit breakers are located on the DC electrical panel.
- Check to be sure there is sufficient battery power to operate the refrigeration equipment all night.
- Power to the two refrigerator/freezer compartments is provided by the “ICEBOX LEFT” and “ICEBOX RIGHT” circuits on the DC panel in the nav station.
- To open the refrigerator/freezer lids, push down on the lid to release tension, and then turn the latch to the right.
- The gas struts will then raise the lids and hold them in an upright position.
- When closing, push down on the lid to release tension then rotate the latch to the left.
- To set the temperature in either refrigerator compartment, use the digital control panel in the galley:
  - Hold for two seconds and then release the “SEL” button until “St-1” appears in the display.
  - Use the up or down arrows to adjust the setpoint.
  - Press the “SEL” button again to return to the temperature display.
  - The outboard compartment (left side as you’re facing it) works best as a freezer – a setpoint of 25°F is recommended.
  - Both compartments may be configured as a refrigerator if a freezer is not needed – a setpoint of 40°F is recommended.
  - The refrigerator and freezer will default to the last setpoint when powered on, so if the temperatures are acceptable, there is no need to reset them.
  - The refrigerator will be colder than the setpoint next to the cold plates in the compartments - keep this in mind when stowing liquids to keep them from freezing.
  - If you need to drain either compartment, turn on the “Ice Box Drain” breaker on the DC panel and activate the drain switch on the counter above the refrigerator – be sure to turn off the pump after the water is drained from the compartments.

OPERATING TIP: Run both units in the “refrigerator mode” with a setpoint of 40°F will create a lower drain on the battery bank. This will decrease the need to run the engine to recharge the batteries while at anchor.
19. **Sails, Rigging and Winches**

- Cutter rigged with in-mast furling mainsail, 110% furling headsail and furling self-tacking staysail
  - Important with in-mast furling mainsail:
  - Unfurl headsail **first** on starboard tack, before unfurling the mainsail
  - Furl the mainsail on starboard tack, before furling the genoa
  - Be **sure** to have slight tension on theouthaul when furling to ensure a tight wrap in the mast.

**General**

- Hatches and portlights must be closed while underway.
- Clutches must be flipped up and rotated **all the way forward** to release the lines.
- The two primary winches are electric. They are operated by locking the line in the self-tailer and then pressing the button on the deck beside the winches. **CAUTION – ELECTRIC WINCHES ARE EXTREMELY POWERFUL – USE WITH DUE CARE TO PROTECT FINGERS AND RIG!**
- There are two winch handles stowed in a bin in the companion way (please don’t drop the winch handles because they will damage the gelcoat).
- The engine transmission should be left in neutral while sailing; the propeller will freewheel and may produce an audible sound when sailing at speeds of 5 knots or greater.

- The headsails can be furled on any point of sail (if on a broad-reach then the mainsail will blanket the headsails and take the tension away)

**Heavy weather sailing**

- We generally furl the staysail completely first above 15-18 knots, then reef the mainsail, and then the genoa. If there is still too much sail then completely furl in the genoa and then unfurl the staysail to balance the boat.
- Shorten sail when the boat begins to feel overpowered (in general, if you think you might need to reef, you probably should).
- The moderate draft full keel will provide better tracking and less leeway if the boat is more upright, so if there is excessive heel on the boat (more than 10°-15°) reducing sail will improve handling performance without sacrificing speed.
- Use the helm to judge the balance of the boat.

20. **Sinks, Showers and Sump Pumps**

- Turn on Pump Fuse Block at DC panel.
- While showers are available for convenience, it is always preferred given boat water and holding tank capacity to shower when at port in harbor facilities.
- 11-gallon hot water tank
- Shower sump pump circuit breakers are at nav station; sump switches in showers must be turned on in the showers and run in 1 to 2 minute intervals to successfully manage
the water drainage.

- The water heater will get the water hot after about 20 minutes. Three ways to heat water: 1) on shore power with Water Heater switch on; 2) with hydronic Cabin Heater on; and 3) running the engine for 20 minutes.
- If the shower sump pump is running continuously when the water in the head is not running, or if the sump pump does not run, the pump strainer may need to be cleaned. Call MAZ Ocean.

21. **Stove and Oven**

- 3 burners, depress knob, turn left to engage lighter, then turn knob further left after lite.
- Must turn on LP Gas circuit on the DC panel on the nav station and LP switch on panel below the sink.
- When stove is not in use, turn both switches off. SJS recommends leaving propane tank valves open, though for safety both switches must be off.
- Microwave should be used only with shore power. Using microwave will drain batteries quickly.
- To light the oven, push the knob in and turn to left for main burner, to the right for broiler button on the stove panel. Ignite the burner with the sparker. Keep the knob depressed for about 30 seconds before slowly releasing, watching the pilot to make sure it remains lit.

22. **Water**

- In line carbon water filter yields bottled water quality in galley
- One 160-gallon water tank located in the middle of salon under the cabin sole
- Water deck fill is located on the starboard side. Be sure to use the hose in Vita Beata’s port locker and not the hose at the pump stations. The hoses at pump stations are contaminated.
- Three ways to heat water: 1) on shore power with Water Heater switch on; 2) with hydronic Cabin Heater on; and 3) running the engine for 20 minutes. The water should stay hot for approximately six hours.

*We hope this information helps. Have a wonderful time!*