

## Notes from the Owners of Cecilia



### Tartan 3400

Dear Friends,

Welcome aboard Cecilia!

We placed Cecilia in charter with San Juan Sailing in 2006. Before that, we were long time charter guests, so we have been in your shoes. We watched designs come and go, and frankly, we know the Tim Jacket Tartan 3400 is our dream boat. She is superbly responsive as well as beautiful!

We have many wonderful cruising memories in the San Juan Islands and points north. Our hope is that you may enjoy Cecilia as much as we do. If something comes up, please feel free to give our maintenance pro, Mike Hasbrouck, a call at 808-640-8609. If you think of anything that would make her more enjoyable for you, let us know through San Juan Sailing. We have not overlooked any detail in our effort with our ultimate sailboat.

We wish you fair winds and wonderful memories. Thank you for being our guests!

Stan & Rita Jacques,  
Cecilia, Monterey, CA

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## 1. Specifications and Vessel Information

### Vessel Information:

**U.S. Customs Re-Entry Decal** – Located on the aft side of the helm binnacle.

**Vessel Official Number - 1180349** (same number as shown on the Coast Guard Certificate of Documentation found in Section 5 Documentation of the Charter Guest Reference Manual (white binder). Cecilia's number is located in the lazarette, starboard hull. Look for 3" high characters.

**Coast Guard Boarding Document** – Refer to the Charter Guest Reference Manual (white binder), Section 5 Documentation. Explains what to expect if you are boarded by the Coast Guard and where to find the information/equipment they may ask to see as part of their safety inspection.

### Specifications:

Year: 2005	Engine: Yanmar 27 hp Saildrive
Make/Model: Tartan 3400	Fuel: 25 US Gal
LOA: 34' 5"	Water: 60 US Gal
Beam: 11' 11"	Holding: 20 US Gal
Draft: 6' 6"	Heads: 1 with shower
Displacement: 10,800 lbs. (Dry)	Electronics: Raymarine & Garmin

Mast Height above WL: 52'6"

Staterooms: 2 doubles plus 2 singles in the Salon

Stateroom 1: Headroom: 6'-3"; Berth Dimensions: Queen size

Stateroom 2: V-Berth: Headroom 6'-3"; Berth Dimensions: Full size, romantic taper at bow, with extension installed, length 6'-6"

Salon Headrm: 6'3" at centerline in main salon

Refrigerator: Top & Side Doors 2 levels

Freezer: 1.5 lbs frozen meat

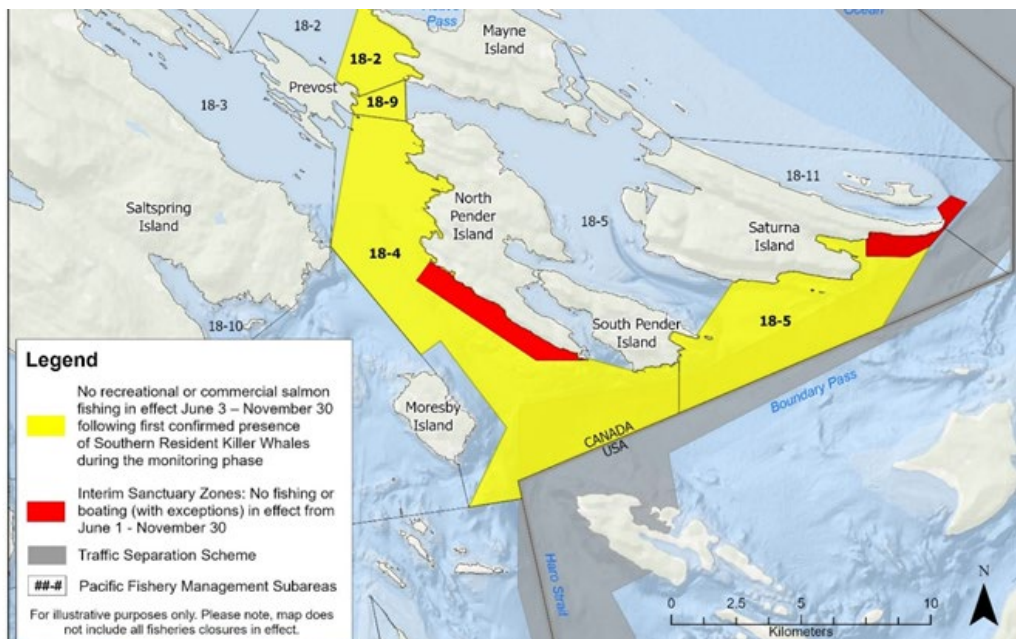


## 2. Being Whale Wise

Our resident orca whales are a wonderful part of the local family. But they are having a difficult time surviving due to declining salmon runs. These whales use echo location to find and catch their food, and noise pollution from boats and ships makes it harder for them to thrive. In an effort to decrease human impact both the Canadian and US governments have implemented new rules. We provide a summary of these rules in the packet you receive when you arrive and more information in section 10 of the white reference book onboard Cecilia. Here is a summary of the rules in Washington State and in BC:

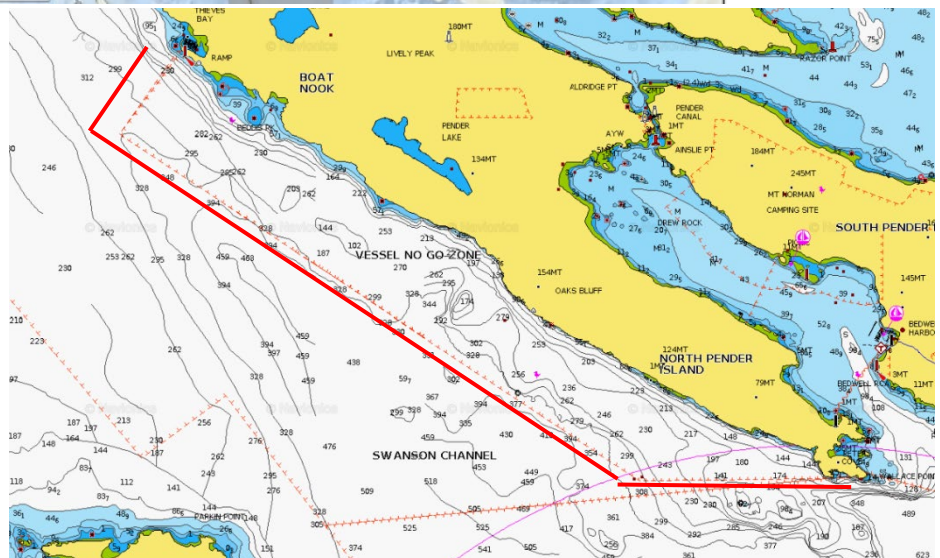
**Washington State:** In an effort to reduce boat-related noise, which negatively affects the southern resident orca's salmon foraging behavior and success, Washington State made some rule changes, effective January 1, 2025. Vessels are not allowed to approach within, or intentionally position themselves to become within, 1000 yards of a southern resident orca. If you find yourself inadvertently within 1000 yards of a southern resident orca, you must reduce speed to less than 7 knots and proceed as directly as possible to a distance that is more than 1000 yards away. However, if you find yourself inadvertently within 400 yards of a southern resident orca, you must disengage your transmission and wait for the orca to move away. Exceptions will be made where safety or rules of navigation do not allow compliance. Since most of us would not be able to distinguish a southern resident orca from a Biggs orca at any distance, let alone 1000 yards, please assume any orca you see is a southern resident.

**British Columbia:** In Canada they have gone a step further by creating some zones where boats are not allowed to further improve the environment for whales. Those zones are red on the diagram below.



And here is an example of what they look like on Cecilia's chart plotter(s). The red lines have been added to help point out the dashed lines, which are what you will see on the plotter.

Note this zone is just to the west of Bedwell Harbour, so on your way in or out of there be sure to avoid this area.





### 3. Nuances

Bright & Light Cherry Wood Interior

Off White Leather Salon Cushions

### 4. Emergency/Safety Equipment

You are not likely to need these, but must know their location.

**Bilge Pump (Manual) and Handle** Located in the cockpit next to engine panel. Handle stored in the starboard aft cockpit locker clipped to the underside of the lid and a spare located inside the chart table. Note: if water rises above floorboards, can use shower sump pumps also in emergency.

**Carbon Monoxide Detector** Salon by Nav station See photo —————

**Cockpit Cushions** In case of COB, throw anything that floats, quickly.

**Emergency Tiller** Located in the Lazarette It is a two inch metal pipe with an “elbow” bend. The runner post attachment point is under the transom seat. Remove the 6” round metal cover.



**Fire Extinguishers (3)** One is located on a mount under the Navigation table, one in the cabinet above the port settee, and one in the V-berth port hanging closet.

**First Aid Kit** In the head vanity cabinet.

**Flares (Pyrotechnic - 3)** In a mesh bag in starboard settee cabinet. A second horn is kept at the nav station.

**Flashlights (2)** Companionway port side, & openly visible under Nav Station, clipped.

**High Water Alarm** Nav Station See photo —————

**Horn, handheld** In a mesh bag in nav station.

**LifeSling** Port stern pulpit, Please review the cartoons on the face of the case for procedures. 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 (6 foam vests)** Located in the Head hanging wet-locker. NSO: encourage wearing at all times when working the deck and often in the cockpit.

**Propane Detector** The Xintex propane detector and solenoid switch is on the aft bulkhead of the galley above AC outlet. See photo —————



**Tapered Plugs** are attached to each thru-hull: 3, head wet locker; galley sink; depth sound v-berth, horizontal hinged door; and engine raw water intake on sail drive, for total of 6.

**Tools and Spares** Nav Station under Seat in Bins and V-Berth Locker under Mattress in Bins.

**Windlass Clutch Release/Tighten Wrench** Located in the nav desk, winch handle labeled "Maxwell."

**VHF Radio** Channel 16. VHF base unit at nav station and remote mic at helm. Handheld VHF radio in charger either at the Nav Table or stored in starboard settee cabinet. Good idea to check charge on this radio before leaving the dock.

## 5. Anchors and Windlass

### Highlights

- Windlass controller is in the anchor locker.
- Windlass circuit breaker switch is labeled and located below the navigation station seat.
- Chain length markings: 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'. Red paint marks the end of the chain. There is 100' of rode after the end of the chain that connects to the boat for safety. The placard shown on the right is glued to the inside of the anchor locker door as a reminder.
- Windlass clutch release/tighten wrench is located inside the Nav Station desk; it is the winch handle labeled "Maxwell."
- The windlass gypsy is not designed to hold the boat while anchored, so please use the snubber with chain hook to hold the chain while anchored.
- Please avoid chipping the bow with the anchor by using caution and slowly raising/lowering the anchor when it is out of the water.
- Turn ON the Anchor light overnight. Breaker switch is labeled "Mast Head" and located on the DC panel at the nav station.
- Secondary/Spare anchor is stowed in the starboard cockpit locker.

#### CHAIN LENGTH MARKING

2' lengths of line woven into chain:

- 1 piece every 25'
- 2 pieces at 100' + 200'

### Details

**Main anchor** –The primary anchor is a 33 lb Lewmar Claw, which holds well in a variety of conditions. The 5/16" chain length is 200 ft. marked with 1 piece of yellow line at 25' intervals and 2 pieces of yellow line side by side at 100' and 200'. Red paint marks the end of the chain. There is 100' of rode after the end of the chain that connects to the boat for safety.

**Snubber** - We use the heavy snubber employed for both nested anchor underway and for overnight.

**Secondary** – Heavy duty but light weight aluminum Fortress anchor stowed in the starboard cockpit locker, with 15' chain and 200' of rode in a separate bag.

To Deploy Anchor:

- 1) We check tide tables to determine current water level and amount of drop while anchored.
- 2) Weather (ch 4, "Northern Inland Waters" or ch 7) helps select a safe anchorage.
- 3) The windlass circuit breaker is below the navigation station seat. Turn it on. Have engine running when deploying anchor to prevent draining batteries. When deployed, turn off windlass circuit breaker.
- 4) Normal for the islands is a 4 to 1 scope, bow to bottom (add 5 feet to depthsounder reading: 4' freeboard and 1' for transducer below waterline). In San Juans, anchorages are often about 25' bow to bottom, so we often deploy about 100' chain—hence mark 2 pieces of yellow line side by side at 100'
- 5) To avoid hitting the hull when initially lowering the anchor, we do the following to prevent the anchor from swinging as it travels over the roller: Push the anchor forward keeping the shank *level* before gradually allowing the shank to rise as we ease it forward slowly into the hanging position (no swing!).
- 6) Lower the anchor to approximately the number of feet on the depthsounder so the anchor is on the bottom, by depressing the down switch
- 7) A signal to the helmsman prompts reverse at idle speed while deploying rode to the desired scope.
- 8) We then allow the anchor to set and to stop the boat while it continues in reverse, idle speed. We then line up objects on shore to determine if we are holding, staying in reverse at idle for about one minute.
- 9) Finally, we reset the snubber. Secure to the starboard deck cleat, next attach the hook to the anchor chain.
- 10) Then ease the windlass so it is not under strain.
- 11) If stronger winds are forecast, test with RPM at half the projected windspeed (1,000 rpm for winds to 20 knots; 1,500 rpm for 30 knots, etc), *after* setting snubber. (Check movement shoreside.)
- 12) In storm conditions (or storm forecast), you can increase scope if there is adequate room to leeward.
- 13) The secondary anchor is available for additional holding power if a storm is anticipated, but best if set before the storm hits.
- 14) If anchored in a small cove, you may wish to deploy a line ashore. 600' floating polypropylene on a reel resides in a cockpit locker. Open transom doors; use the mop handle as an axle through the reel; set mop handle on helm seats. Deploy the line with the dinghy while the spool unwinds. If sufficient length, bring the line around a secure shore object and back to the boat to a transom cleat for ease of retrieval.

To retrieve the anchor:

- 1) Start the engine, given that the windlass draws from the engine start battery. Turn on the Windlass circuit breaker.
- 2) Remove the snubber
- 3) Engage forward gear as needed to keep the chain vertical, exercising care to avoid over-standing and dragging the chain against the hull. Press the controller “up” switch, always assuring the chain is vertical during retrieval—this avoids either towing the boat or dragging the chain against the hull.
- 4) Piling-up of chain under the windlass can jam it. Use the versatile mop handle to push the chain to level the piling-up.
- 5) As the length of rode remaining approaches the water depth, the sound of the windlass laboring alerts us to immediately stop. Sometimes a brief pause will cause the anchor to break free, given the 90 degree angle of pull. Use the engine, not the windlass, to break out the anchor with the engine in idle forward.
- 6) To nest the anchor without chipping the hull, the anchor may need to be swiveled. Use the windlass to bring the anchor shank up and over the bow roller in one continuous motion, then nest the anchor by hand.
- 7) After nesting, with a slight *slack in the chain*; secure the anchor once again with the snubber on the starboard deck cleat. As noted, the chain is only “unsnubbed” when it is moving in or out.
- 8) Reminder: secure the windlass controller into its holder *before* closing the anchor locker lid.
- 9) Turn off the Windlass Breaker.

## 6. Barbecue

Highlights

- Shut-off valve is located in the propane tank locker. Look for yellow handle.
- BBQ propane hose is not plumbed through the solenoid valve.
- Please close the shut-off valve and clean grill when finished cooking.

Details

- To operate:
- Turn on the BBQ propane hose isolation valve located in the propane tank locker located on the starboard cockpit gunwale.
- Grab a BBQ lighter from the galley and insert the end into the small hole in the BBQ below the grill until ½” from the burner. Light the BBQ lighter.
- Turn the regulator on the right side of the BBQ to the “Light” position.



- As a courtesy to the next charter guest, please clean the BBQ grill with the wire brush.
- Turn off the regulator and isolation valve when done cooking. Regulators often malfunction and don't close properly so it's important to turn off the isolation valve too.

## 7. Batteries, Charging & Inverter

### Highlights

- Please keep batteries above 12.2v at all times. 12.8v is fully charged (with all loads turned OFF – including the fridge and when not charging).
- When charging, battery voltage will read above 13v.
- Ensure batteries are charging when connected to shore power – see details below in Battery Charging section.
- When underway, the engine is automatically charging all batteries.
- At anchor, there is no generator on board but the house battery bank is ample enough to handle normal DC loads including lights, the fridge, diesel cabin heater and entertainment system.
- Caution is needed when inverting and using 120V power. Only low draw (wattage) items like phone charging or computers. High wattage items like hair dryers and electric heaters will kill the batteries.

### Details

#### **BATTERIES:**

Cecilia has the following battery groups on board:

- There are five batteries on board, two in the lazarette and three under the aft cabin mattress.
- Engine start - single Lifeline AGM 745CCA (5/24)
- House - four Lifeline Deep cycle 100AH (5/24)

All batteries are charged automatically when connected to shore power or while the engine is running.



**Battery disconnect switches** The battery disconnect red rotary dial switch and the DC Main breaker are to the right of the DC panel in the nav station.

- The switches should remain in the "I" or ON position all the time.
- In the unlikely event that the engine start battery is depleted, turn the red dial switch to the "COMBINE" position to use the house batteries to start the engine.
- After the engine starts, turn the house battery switch back to the "I" or ON position.
- After running the engine at cruise RPM for at least 1 hr, turn off the engine and try to restart. If it restarts using the start battery with no hesitation then you are good to go. If the engine won't start or the start battery is slow cranking then contact the SJS office.
- Never move the red dial switch to OFF when the engine is running. This will blow the diodes on the alternator and the batteries will no longer charge.



## CHARGING/INVERTING

### Charging – Shore Power

- Connect the 30Amp shore power cord to the receptacle on the starboard cockpit coaming.
- Turn ON the AC breaker on the AC panel.
- Turn ON outlets and outlets 2 on AC panel
- Turn ON water heater and battery charger



### Charging – Engine

- All batteries are automatically being charged when the engine is running.

### Inverter

- There are two 12 volt outlets for recharging mobile devices: below the electric panel & ignition panel.
- If 120v power is needed for low wattage devices when shore power is not available, the Inverter can be turned ON.
- The inverter powers the 120v outlets.
- At the multi-control panel, turn on inverter
- On the AC panel, flip ON outlets and outlets 2.
- Please turn the inverter OFF when not in use.
- Note: Do not press the inverter on button when connected to shore power



## 8. Berths and Bedding

Cecilia has two cabins, hanging lockers and storage areas. There are ample sources of lighting in each berth with individual controls for reading lights.

The aft cabin has a queen size berth for the ship's master with entry way standing room, a hanging clothes locker and shelves each within a cherry wood door.

The V-Berth provides two adults romantic coziness with a hanging locker, two large drawers, and a spacious two shelf cabinet each enclosed within the cherry wood cheerfulness.

The sumptuous leather settees in the main salon can sleep one adult on port and one on starboard, with great headroom and open airiness.

## 9. Bilge Pumps

### Highlights

- Emergency Bilge Pump (manually operated): located in the cockpit next to the ignition panel. The handle is stored in the starboard aft cockpit locker, clipped to the underside of the lid and spare handle is stored inside the chart table.
- Electric Bilge Pump: Has an automatic float switch. The pump will come on when enough water comes in to cover the float switch. Please leave the bilge pump switch in "auto" position at all times. The electric bilge pump can be used manually at the electrical panel.
- The pump inlet is located under the sole in the salon,. Check the strainer on the pump inlet for any clogging debris and remove if needed.
- Please visually inspect the bilge each day, which is accessed by lifting the floorboard in the main salon. The intake tube is at the lowest point in the bilge
- The refrigerator drains into the sump basin, so most accumulated water is from melting ice and condensation.

### Details

1. Emergency Hand Bilge Pump – This hand operated pump is located in the cockpit next to the ignition panel. The handle is stored in the starboard aft cockpit locker, clipped to the underside of the lid.
2. Electric Bilge Pump – Has an automatic float switch. The pump is located under the sole in the aft cabin. Note: the circuit breaker labeled "Bilge pump" *must be "on" at all times* for the float switch to work (marked by "double green" dots). The bilge pump has an in-line screen strainer. *If pump fails to empty bilge, check the strainer, in case it may have become clogged with debris.*

Note: in emergencies, the shower sump pump can be turned on at the DC panel.

## 10. Dinghy and Outboard

### Highlights

- 10' Kachemak inflatable dinghy with rigid aluminum floor and bottom, 2.3hp Honda outboard.
- Tow the dinghy 6' off stern using the port cleat (the side away from the diesel exhaust). Use a proper cleat hitch and for peace of mind tie off the painter's bitter end to base of the stern pulpit. In very rough conditions, shortening the painter makes it unlikely the dinghy will flip in the wind and waves.
- Please don't tow with outboard attached to dinghy or leave outboard on the dinghy overnight.
- Dinghy air pump is stowed in the starboard lazarette or in the dinghy. The patch kit is in a labeled orange tube, stowed with spares and tools under the Nav Station seat.
- Manual hand water pump, air pump & repair kit may be stowed in dinghy front compartment.
- The 2.3hp Honda outboard is air cooled 4-stroke and takes straight gas.
- The 1-1/4 gal orange 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 Cecilia.

### Details

#### Towing the Dinghy

Always remove the outboard motor before towing. We leave the **red** spare gas can for the outboard engine in the dingy, tied off to the transom. Towing works best when the dinghy is brought close to the boat with 4-5 feet of painter line between the stern and the towing bridle of the dinghy. This lifts the bow out of the water and reduces drag. To keep the dinghy away from engine exhaust, tie the painter off at the port stern cleat with a standard cleat knot, then attach the bitter end to the stern rail using a rolling hitch or similar secure knot.

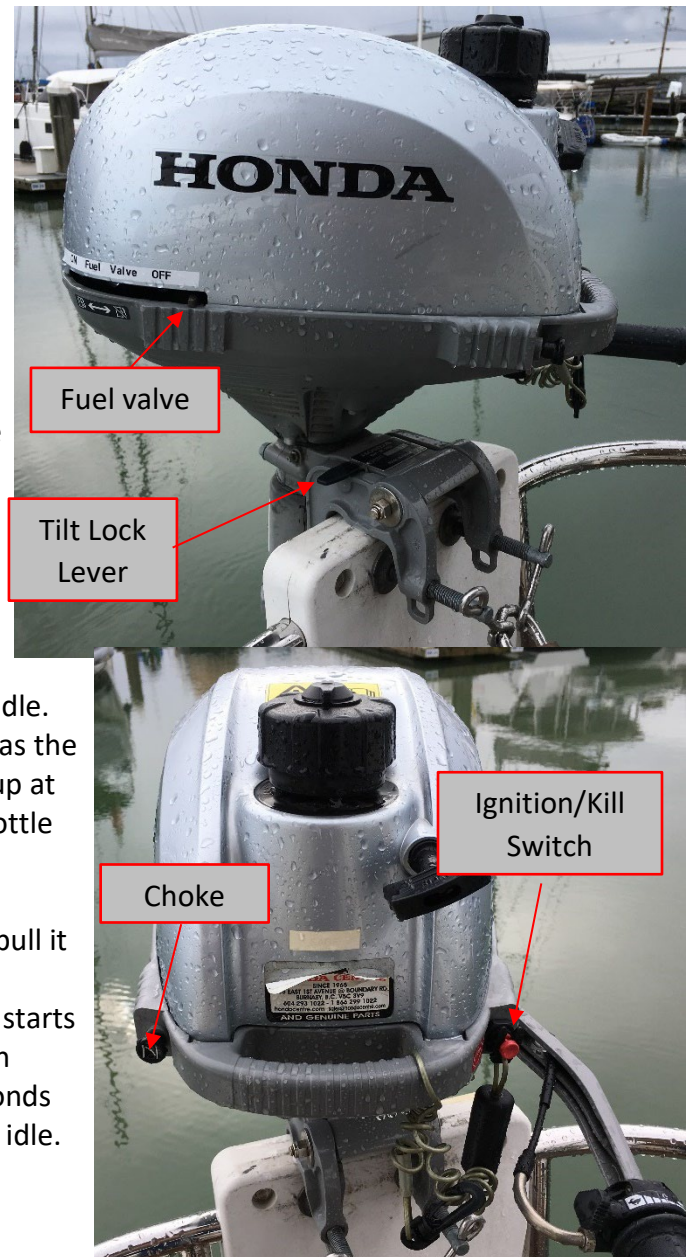
OPERATING TIP: Leave the self-bailing valve (located in the stern) open when towing to let any accumulated water drain out. Close it when ready to use the dinghy.

#### Preparing the Outboard

1. Unlock the outboard (combination is listed on your charter packet) and reattach the lock nearby on the stern rail.
2. Carefully loosen the mounting screws on the outboard bracket keeping one hand on the outboard handle at all times or tie the motor off to a dock line attached to Cecilia. We actually witnessed a crew member allowing an outboard to flip off the rail and quickly sink into 30 feet of water!
3. Transferring the outboard to the dinghy is best accomplished by having one crew member in the dinghy to receive the outboard from another crew member on deck, rather than a single crew member trying to get off the boat and onto the dinghy with outboard in hand. Although the outboard is relatively light, it should be handled carefully.

Starting the Outboard

1. Open the fuel valve by pushing the fuel valve lever (starboard aft corner of the outboard) aft to the ON position.
2. Pull the choke all the way out (starboard forward corner of the outboard).
3. Open the air vent on the top of the fuel cap (top of outboard) 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.
4. Make sure the black U-shaped kill clip (attached to the red or gray lanyard) is clipped into the red shut-off 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 Cecilia 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 shut-off knob (where the kill clip is clipped in) or just pull the red lanyard until the clip pops off. 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 in place. Note that the motor is held in the lowered position by friction from a large 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 pull on the motor head slightly 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 Cecilia'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..

### Outboard Troubleshooting

- If the motor won't start, review steps 1-8 above to make sure you've correctly done all 8 steps.
- A faulty Spark Plug is often the problem. There is a blue “Honda Outboard Tools” kit containing a spare spark plug and spark plug wrench in the “Engine Spares” box. If you use the spare spark plug, notify your check-in skipper upon your return so a new one can be placed aboard for future guests.
- If the motor is running fine and suddenly quits then it is often because the fuel cap vent is closed.
- If the motor is running fine but the propeller won't spin with the RPM above idle then the shear pin is probably broken. Put the motor back on the stern rail bracket, take the cotter pin out to remove the propeller and replace the broken shear pin. A spare pin is located at the forward underside of the motor head.

### Inflating the Dinghy

If the dinghy needs inflation, the foot pump is in the dinghy bow. The dinghy has three (3) baffles, each with an inflation valve located on the inside of the boat.

The foot pump is held closed with a locking clasp. Release the clasp, insert the inflation nozzle onto the valve and give a ¼ turn to lock it in place. Inflate the baffle with the foot pump until it is firm. When done, carefully detach the inflation hose. If the valve is still open, press it once to close it.

If you need to make a repair, the repair kit and instructions can be found in in the tools and spare parts storage compartment located under the navigation station seat.

## 11. Dodger

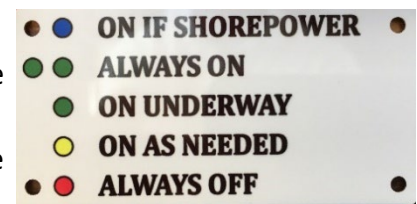
### Highlights

- Hint: if we get early morning dew fogging our dodger glass, or salt crystals from spray, we rinse off with a pan of fresh water from the galley (salt crystals may need a second splash). We *avoid wiping*. By the way, if you or your guests use *aerosol sunscreen*, please apply well away from the dodger. Sunscreen will destroy the glass. (San Juan Sailing replaced two panels destroyed by sunscreen.)

## 12. Electrical

### Highlights

- The AC and DC panel breakers use the color dot convention shown:
- Main AC breaker/switch is located on the AC panel in nav station (see photo page 8).
- Main DC breaker/switch located on the DC panel in nav station (see photo page 7).
- The Outlets breakers on the upper left section of the AC panel are powered by either Shore Power or the Inverter.



### Switches and Controls on the Electrical Panel (see photo below)

The electrical panel is in the nav station on the starboard side. Here are some things to note:

- Shore Power:** All the AC controls are along the left side of the panel. There is a “master switch” to turn on & off AC power when you connect and disconnect shore power. When the AC is ON, a green LED light is illuminated. Please ensure that the switches for the AC items (water heater, battery charger, AC plugs) are turned OFF before connecting or disconnecting shore power.
- Water Heater:** Activate the electric hot water heater when you are on shore power if you need more hot water. When the engine is running, it heats the water.
- Battery Charger:** Off - See victron energy battery monitor.
- Outlets:** Activate two switches to turn ON the AC electrical outlets located throughout the boat.
- 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:** If you don’t hear the pump start when you turn it ON at the panel, it means that the system is at working pressure – you should hear the pump start again after you use some fresh water. Note that the marine toilet uses raw water and does not impact the fresh water supply. Shower and sink in the head use the fresh water supply, as does the cockpit shower.

**OPERATING TIP:** When underway and if no one is below decks, we turn the water pump OFF.

- Cabin Lights:** This switch turns ON/OFF DC power to the LED lights located throughout the boat. It must be “ON” before you can turn on any lights on the boat.

- **Fridge Unit:** We usually leave the fridge switch "ON" whenever we're on the boat. If the house battery charge level drops to near 12.2v and you aren't planning to run the engine or to connect to shore power, then turn the fridge off. Your provisions will stay cold overnight.
- **Navigation Instruments:** Turn three (3) switches "ON" to activate the electronics, instrumentation, and multi-function display in the cockpit: Navigation, Radar & Autopilot.
- **Anchor, Steaming and Deck Flood Lights:** When anchored or mooring, turn on the Anchor Light at dusk (located at the top of the mast). When motoring at night, turn on the mast-mounted Steaming Light.



Turn on the deck Flood Light if you must go forward on deck at night.

## 13. Electronics/Instruments

### CHART PLOTTER:

#### Highlights

1. Cecilia is equipped with a Raymarine chartplotter. At the DC electrical panel, turn on **all** of the following instrument breakers: *Navigation Instruments, Radar, Autopilot and VHF*. These instruments are interconnected and leaving one or more of these breakers OFF will cause the other instruments to not function properly.
2. After power is applied, the chart plotter system will return to the last formats / settings selected. The most popular selections for screen formats are accessed by selecting Home.



3. Please refrain from changing settings beyond the typical functions like chart orientation, radar overlay, AIS overlay and range.
4. Commonly used chart plotter selections are detailed below. For a more complete orientation of how to operate and get the most value from a Raymarine chart plotter, we recommend downloading the user manual for the Raymarine C Series MFD Digital Chart Plotter. The manual is also loaded into memory of the plotter if you wish to review something while onboard.



## Commonly Used Chart Plotter Selections:

**Finding the Navigational Chart:** Press Power on the MFD in the cockpit. Note - this is not a touch screen; use the buttons.

- The screen in the cockpit will sound an alarm requesting you acknowledge the system by pressing the smaller of the two overlaid round buttons on the panel. This is also the cursor controller joystick. Press Home to go to the menu icons should they not appear.
- From the menu icons on the screen, use the cursor to select the Nav Chart icon then press the cursor to activate. You may turn the larger round button to scroll the cursor thru the icons. Selection is only by pushing the smaller button.

**Zooming in and out:** push the magnifying glass with the (+) or (-); You may also turn the larger round button either left or right.

**Returning the screen to the vessel's current location:** Press Menu / select Find Ship turning the larger round button right or left/ press center small round button / press Back.

**Clearing Pre-existing Waypoints, Routes and Tracks:** select Menu / Navigation / Waypoints or Tracks / Remove / Back.

**Chart Orientation:** subject to your preference, we recommend either Heading Up or North Up.

- select Menu / navigation / settings / Heading Up or North Up / Back

**Display Brightness:** if you depress the power button, a menu will come up on the bottom half of the screen; you can use the rotary control to adjust the brightness.

**Course over Ground (COG) Vector/Line:** Ensure the COG line is always ON by default.

- select Menu / navigation / vectors / COG / Back

**Displaying and using a Split Screen:** Chart on one side and Radar on the other.

- from the opening Main screen, select the icon that shows the picture of the split screen display / select the icon

**Radar Overlay:** The Radar is integrated in the Raymarine C Series Digital MFD.

1. The unit defaults to "standby" when powered up.
2. To activate radar, toggle from "standby" to "transmit."



*Radar reflector*



3. Toggle back to "standby" when radar is no longer required. Using the radar increases power consumption.
4. Procedure for Radar Overlay on Chart : push Menu, select Radar/AIS, select Transmit, push Back until you get to Chart screen; Radar shows as purple overlay.



## A.I.S. (Automatic Identification System):

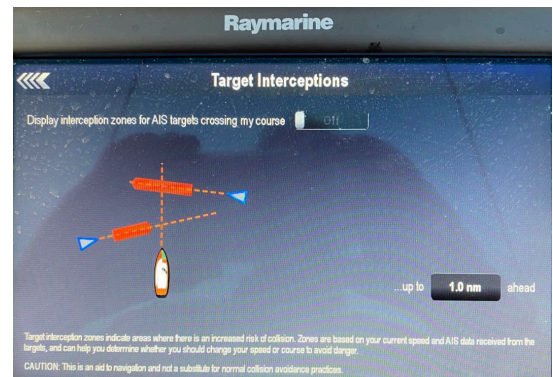
### Highlights

- Cecilia 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). Cecilia is transmitting her position full time. The AIS unit is wired directly to the batteries
- Make sure the AIS overlay is turned ON in the settings menu.
- 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. Cecilia's MMSI number is 368119280; Call Sign is WDL3201; Official Ship #1180349; Expiration 11/05/2029.

### Details

AIS vessels appear on the chart plotter screen as triangles (must have AIS overlay turned ON). The triangle points in the direction that the vessel is moving and if you place the cursor 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 Cecilia to other vessels with AIS.

The AIS is an added safety feature which allows large commercial vessels to easily see you and your direction/speed. They may try to contact you via VHF channel 16 to verify your course intent. In addition AIS allows San Juan Sailing/Yachting to provide faster assistance in case of unplanned maintenance issues as well as alert San Juan Sailing/Yachting of *Cecilia*'s return approach. Vessels with AIS can be viewed in real-time through mobile device apps and websites like [www.marinetraffic.com](http://www.marinetraffic.com) that will reveal vessel name, course, speed, track, and other information



## VHF RADIOS:

### Highlights

- Garmin VHF base unit and plug-in remote Helm unit
- Turn on base unit and Helm unit also comes on.
- Handheld on Nav Station with charger base.



- Handheld VHF charges automatically using inductive charging when snapped into holder
- We recommend that you monitor Channel 16 during your cruise. It is reserved for emergencies and boat-to-boat initial contact. After contact, move to a working channel (68, 69, 72, 74 or 78). We listen to weather channels 1-10 (whichever gives the best reception, normally 4 in the San Juan Islands) before we sail in the morning and prior to anchoring for the evening. Listen for the reports identified as "Northern Inland Waters". San Juan Sailing monitors channel 80 during office hours (closed Sundays).

### Details

Listed below are instructions on how to use some common features:

- 1) **Turning On and Off the radios** – the primary house radio is set to go on when the breaker is turned on. The Helm unit turns on automatically..
  - 2) **Silencing a DSC Alarm** – When another boat (or the Coast Guard) press the DSC button on a radio it sounds an alarm on all boats in the area. To silence this alarm, press any key on the radio.
  - 3) **Changing from High to Low transmit power** – Press the HI/LO button in the vertical row and then select 1W (low power) or 25W (hi power) on the soft keys.
  - 4) **To quickly get to channel 16** – tap the red 16/9 button (upper right). Holding it in for a second will take you to channel 9.
  - 5) **Accessing the weather channels (WX)** – Pressing the large channel select button (lower right) will toggle between weather channels and normal channels.
- **Adjusting Volume and Squelch** - Press the Vol/Sq knob to toggle from setting squelch to volume. Turn same knob to adjust either.
  - **USA, INTERNATIONAL, or CANADA.** The radios should be left in USA mode. **Changing between International & U.S. channel** – Press the MENU key, on the soft keys Select CHANNEL then FREQUENCY BAND, Use the Channel knob to select
  - **How to set up and use Channel Scanning**
    - To setup the channels to be scanned press the Scan soft key, then use the large knob to select the channel to be saved and press the Save soft key. Repeat this for all channels desired. Pressing the Save button on a channel already saved will remove it from the saved list. Saved channels have a \* on the screen when they are selected.
    - To start scanning press the Saved soft key. To get back to where the Scan soft key is on the screen press the Clear button. To restart scanning after transmitting it is necessary to press the Scan and then Saved soft keys again.
  - **Favorites channel lists** –N/A.

## 14. Engine

### Highlights

- Yanmar 27hp 3-cylinder diesel with sail drive that will provide many hours of cruising pleasure.
- The sail drive helps eliminate shaft vibration, noise, and alignment problems. Under engine power, you will find *Cecilia* to be quiet, balanced, maneuverable, and powerful.
- Maximum RPM is 3000. Cruising RPM is 2000-2400. Idle is around 900 RPM. It's OK and in fact preferred to vary engine speed as you cruise. Please do not exceed the cruising RPM range.



### Details

#### Inspecting the Engine

Engine access is provided by lifting the companionway stairs, which operate on hydraulic lifts – there are no latches, just lift it up, push it down. Side & front access is provided via hatches in the aft cabin.

We recommend performing the following inspections each morning before getting underway:

- Lift the companionway steps to access the engine compartment. *Look around and below* the engine for any signs of oil or other fluid leaks.
- *Check the coolant level.* Anywhere between the two lines (high and low) on the overflow reservoir is where you want to be.
- *Inspect the raw water strainer for debris (located under galley sink).* In case of an engine overheat alarm, check for eelgrass clogging the strainer. Unscrew the top of the strainer, clean out any debris, then replace it. You have to close the raw water valve in the engine compartment before you clean the strainer (see page 20, Engine Overheating for instructions).
- *Check belt tightness* by deflecting the belt inward with your fingers; it should not depress more than an inch or so.



For longer charters (> 7 days), check the oil level once a week. The dipstick is on the port side of the engine and accessed from the aft cabin (look down and to your left). If you need to add oil, there is spare oil stored in the aft cabin bottom shelf. There is one oil filler cap on top of the engine. Do not overfill, add no more than a cup at a time and re-check the oil level.

The fuel filter is at the front of engine as is the water pump.

### Starting the Engine

This is a keyless start system. The main battery engine switch is on all the time.

1. Ensure that the throttle/gearshift is in neutral.

**OPERATING TIP:** In colder weather or when you want to run the engine at a higher idle speed (e.g., to charge batteries), depress the **black round** button at the base of the throttle and push the throttle slightly forward. This disengages the transmission and allows the engine to run at a higher idle RPM. We recommend targeting 1000-1200 RPM for warm-up and battery charging.



2. Press the bottom "POWER" button to turn on the ignition. Red lights will illuminate on the tachometer dial. Do not hold the button or it will turn the ignition off.
3. Press top "START" button, which will start the engine.
4. Listen/look for water discharging from the aft starboard end of the hull. If water is not in the exhaust immediately shut the engine down and contact SJS.

**OPERATING TIP:** Allow 5-10 minutes of warm up before placing a load on the engine. It stresses a diesel engine to be placed under load when cold. Conversely, allowing a diesel engine to idle too long will cause carbon build-up.

### Running the Engine

- Engage forward or reverse gear by moving the transmission directly from Neutral to Idle-Forward or Idle-Reverse (the transmission will click into each setting), pause momentarily, then move the throttle forward/backward smoothly to your desired **RPM setting**. **Engaging the transmission in jerky incremental steps can slip the clutch, causing damage over time.**
- To keep the transmission "healthy" when shifting from forward to reverse and vice-versa, pause ~2 seconds in the 12 o'clock neutral position (say "one and two and") before shifting gears.
- An economical cruising speed of 6 knots is achieved at 2400 RPM, which uses about 0.79 gallon of diesel per hour. Please do not exceed 2700 RPM as maximum hull speed is 7.1 knots: it's hard on the engine and fuel consumption goes way up with very little increase in speed, and too much time at speeds over 2400 RPM can cause overheating. We recommend keeping the engine speed under 2400 RPM for most operating conditions.
- To avoid sucking in air or sludge when the fuel level approaches  $\frac{1}{4}$  of a tank, refuel when the fuel drops below  $\frac{1}{2}$  full and before it reaches  $\frac{1}{4}$  full. The tank holds 25 gallons, so topping up at about 8 gallons is a reasonable exercise and doesn't take too long.

### Shutting Down the Engine

1. Allow the engine to idle for a few minutes in neutral to cool down.
2. Press the middle "STOP" button, which will stop the engine.
3. After engine stops, press the bottom "POWER" button and hold for a second until the red lights on the tachometer turn off. If the bottom power button is not turned off, an alarm will sound periodically.

**SAFETY REMINDER** – Never stop the engine by turning off the battery switch. Doing so will seriously damage the diodes on the alternator and the batteries will no longer charge.

### Boat Handling with the Engine

Cecilia has a deep 6 '6" fin keel, a keenly responsive helm, and a narrow turning radius.

San Juan Sailing offers free handling instruction before you leave for your charter if you'd like to practice with Cecilia or just bone up on your boat handling skills. Spending 30-60 minutes practicing getting in and out of the Bellingham marina can be a great experience.

### Forward

Because the saildrive/propeller is almost directly below the engine, the wash from the prop takes a moment to reach the rudder; anticipate this delay when maneuvering in tight spaces. A short burst of throttle will direct water at the rudder, which if already turned, will result in a short, sharp turn with little forward movement – a strategy that can be handy when turning in confined spaces.

### Reverse

*Prop walk is minimal* to starboard in reverse. Driving in reverse is a pleasure. 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

Unless there are high winds, we typically motor in the marina in Idle-Forward, which will produce a boat speed of about 2 knots. About 4 slips from our target dock, we shift to neutral and glide in. Use the engine to stop the boat at the dock, and don't shut down the engine until the vessel is secured at the dock.

**SAFETY REMINDER:** It's difficult for people holding lines on the dock to stop the momentum of a heavy cruising sailboat. It's also a bad idea to use dock lines on a cleat to stop movement; this can result in a sudden swing of the boat and damage to cleats, boat, and/or dock. And please, no crew should jump to the dock. If you can't step off calmly, back-up and try again.

When coming into our docks in strong winds, or if you'd just like a little assistance on arrival, hail "San Juan Sailing" on **VHF Channel 80**. They'll 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**" team mate. If you are going to accidentally "touch" a boat or other object, lower the fender to the point of contact.

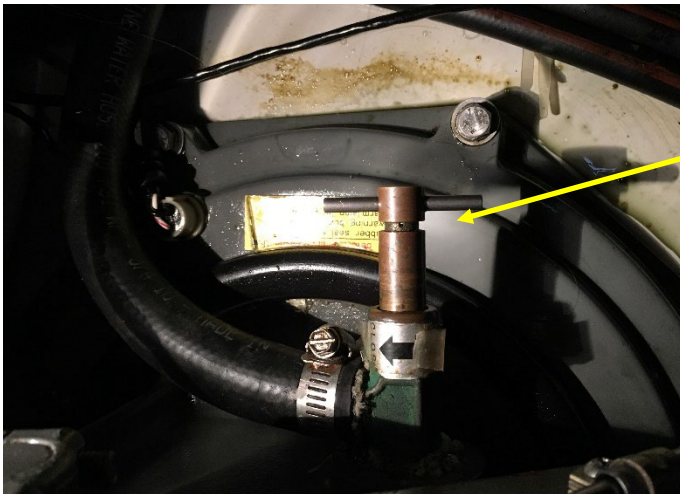
### Troubleshooting Engine Problems

Yanmar engines are incredibly durable and you shouldn't have any problems on your voyage. Nevertheless, there are a few things to watch out for.

### Engine Overheating

If the engine overheat buzzer sounds while the engine is running, it's usually no more serious than eelgrass plugging up the raw water strainer. The solution to this problem is prevention – keep an eye out for eelgrass mats, especially along those “soapy” looking tide and eddy lines in the water, and don't run over it. When eelgrass gets sucked into the engine cooling water intake, it collects in the raw water strainer.

Check for water gurgling out the exhaust. If gurgling, check the coolant level. If no water is gurgling, the raw water strainer is probably plugged with eel grass. To clear eelgrass from the raw water strainer, stop the engine. The strainer is located under the galley sink at the aft end of the cabinet. Check the strainer for visible obstruction. If eel grass is visible, first close the raw water intake seacock (located on the sail drive housing, port side, forward end of the engine, look for the brass “T” handle. Refer to photo below). **NOTE: The valve takes about 12 full rotations of the T-handle to open or close.**



Seacock:  
Raw Water Intake Valve  
Brass Handle (located on  
port side of sail drive  
housing)

Open the raw water strainer lid located under galley sink (photo) by removing the 2 wing nuts at the top. Extract the stainless steel filter element and remove the eel grass inside the yacht over the trash bin - there is a rubber O ring gasket that you must secure. Open the seacock to insure it is not clogged, close it again and reinsert the filter element with O ring, making certain the lid sits flush to get a good seal. Gently tighten the wing nuts simultaneously; don't over tighten. Reopen the seacock, then restart the engine.



If after restarting the engine it overheats again, make certain the raw water intake seacock is open; then check the seal between the strainer, the rubber gasket, and the lid. If the strainer is drawing air, it won't draw water. If needed, open and then retighten the lid on the strainer and check to make sure the rubber gasket is in place in the lid (and not lying in the bilge.)

If the above steps fail to solve the problem, call San Juan Sailing for assistance.



### 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, so check which light is showing red. If it's the oil light, shut down the engine, check the oil level, and contact San Juan Sailing.

The alarm buzzer is more likely to indicate engine overheating, and the temperature icon light will light up. Before you shut down the engine, check for water gurgling out the exhaust. If you have a "wet exhaust," check the coolant level in the overflow reservoir bottle. If none is seen, add enough to reach the top-level line on the bottle. After the engine cools down, remove the cap on the engine block and add coolant. And check the bilge for a light green liquid (coolant). If coolant is found in the bilge, call San Juan Sailing immediately.

If the coolant reservoir bottle is full, check to see if the engine threw a belt. Without a belt on the raw water pump, the coolant won't circulate and cool the engine. Replacement belts are in the engine spares kit. One other possibility is that the impeller in the raw water pump has failed. While they are replaced each spring with a new one, it's still possible that a hard object may be drawn in and break off an impeller blade. A replacement impeller is found with the engine spares. Call San Juan Sailing if you suspect you have an impeller problem.

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

## 15. Fusion Entertainment System

Cecilia is equipped with a marine entertainment system for audio with Bose Speakers in the main cabin and marine speakers in the cockpit. Highlights of the entertainment system include:

- **Audio system:** AM/\_FM Stereo
- To connect your device, use Bluetooth. The quick start stereo manual is in the Nav table.

The Audio system unit is located next to the VHF radio at the Nav station. To connect an iPod or other portable music player using the USB port, plug in your device using your own cable.

## 16. Fuel

### Highlights

- The diesel fuel tank holds 25 gallons (96.4 liters).
- The fuel gauge is located at the nav station.
- Refuel when gauge reads  $\frac{1}{2}$  or greater or at 20 hrs engine run time.
- Fuel deck fill is on the starboard deck by the mast labeled "Diesel."
- In nominal conditions, the engine consumes 0.79 gal/hr at 2700 rpm.
- As part of your paper log, track engine run time: 25 gal = 30 hrs.

DetailsFueling:

Please fill very carefully because it is difficult to tell when the tank is full. You need to put your ear to the tank, not fill "too fast", and be prepared to stop immediately when the pitch rises.

In the locker under the Nav seat, there are disposable gloves. The attendant will give you absorbent pads. Before fueling, build a fuel absorbent dam fore and aft in case of overfill (reaching for the pads after the spill is too late).

**17. Head and Holding Tank**Highlights

- Only what has been eaten goes in the toilet.
- The marine head is a traditional Jabsco manual flush system using seawater.
- The toilet discharge hose has Y-valve (photo) set to flush the toilet directly into the holding tank..
- Tank gauges are notoriously unreliable; installation # 4 was also dysfunctional and thus, eliminated
- 20 gal Holding tank should be emptied every second day

Details

Please do not put anything in the toilet that has not been eaten. Experienced sailors deposit toilet paper in a wastebasket in Ziploc baggies, not down the toilet because paper will clog the hoses. The head holding tank capacity is 20 gallons. If you have four people on board and have 'normal' usage, the tank will need to be emptied every second day.

San Juan Sailing staff will discuss holding tanks and pump outs on your arrival. Our one plea is this: please don't over fill the holding tank as leaking sewage is most unpleasant! Thank you.

Please note that in U.S. waters it is illegal to discharge holding tanks overboard. While in Canadian waters outside of bays and harbors overboard discharge is allowed.

**Head and Holding Tank:**

- The head is a traditional Jabsco manual flush system using seawater. The seawater suction seacock for this head is located under the floorboard of the wet locker in the head.
- If the toilet pump starts to resist your flushing effort, don't force it! Exploding or leaking sewage is most unpleasant! Search out the problem and correct it.
- Tank gauges are notoriously unreliable. **Empty the holding tank every two days just to be safe.**

**Emptying the Holding Tank**

1. Deck Pumpout
2. Overboard Discharge (**where legal**)

The head has a 20 gallon holding tank located under the aft cabin mattress. The "Y" valve which indicates the flow from the head to either tank or discharge is located on the aft wall of the shower stall. The arrows on the "Y" valve will point to either "tank" or "discharge". Normal operation is into the tank. Discharge is not done in these waters. The tank can be pumped out two ways:

1. Deck Pumpout - stations located at various harbors throughout the islands.

The holding tanks can be pumped out via the labeled deck fills. After pumping out the holding tanks, please refill each tank with about 5 gallons of fresh water through the deck fitting to rinse, and then pumpout again. This will help keep the waste system smelling fresh! Thank you!

2. Overboard Discharge (**where legal**) - Running the macerator to discharge into open waters when allowed. (San Juan sailing will provide further information about approved areas for discharge of macerated waste)

When using the **macerator** please follow these steps:

1. Open the sea cock for the macerator, located under the floor of the wet locker in the head. The head intake, discharge and macerators seacocks are from outboard to inboard respectively; left to right in the [photo](#).-----
2. The macerator seacock handle is closest to the center of the boat. Lift the handle to a vertical position to open.
3. Turn the macerator on at the electrical panel. It will take less than two minutes to empty the tank. A high pitch sound indicates it has emptied. It pumps off the stern so a lookout to report clear discharge is also helpful.



Tank gauges are unreliable and do not read accurately! As a rule of thumb, the holding tank is fuller than you think so empty it every two days. The tank gauge has been removed for your safety. San Juan Sailing staff will discuss holding tanks and pump-outs on your arrival. Our one plea is this--as you use the holding tank, please monitor it carefully! Exploding or leaking sewage is most unpleasant! At the pump out station the tank should be pumped out, filled with fresh water through the deck fitting to rinse, and then pumped out again. The air vent for the holding tank is just below the aft starboard cleat.

## 18. Heaters (Cabin)

**Highlights** - Cecilia has two options for cabin heat:

- Webasto Diesel Fired Furnace
- Portable 120V Electric Heater on shore power

### Details

#### Webasto Diesel Furnace

The Webasto diesel fired cabin heater has the thermostat mounted below the electrical panel. The heat is dry, comfortable, and on those occasional rainy days or cool evenings, makes a huge difference in cruising comfort! The heater also heats the fresh water so you have hot water without running the engine. On the DC electric panel, there is a breaker for the system power labeled "Heater" that should ALWAYS remain turned "On." The toggle switch just left of the fuel gauge is labeled "System Heat" (up) or "Engine Heat" (down), and "Off" (in the middle position). The thermostat unit (located below the electrical panel) has an "Off/Heat" switch.



Webasto Diesel Furnace Operation:

1. Ensure that the "Heater" breaker on the DC panel is "On."
2. Flip the toggle switch from "Off" to "System Heat."
3. Switch the Thermostat "Off" to "Heat."
4. Select the temperature setting with the soft switches.
5. Manually open the four (4) air vents. In 5 to 10 minutes, the warm air will be flowing into the cabins. There are two fan toggle switches, one behind the head sink and another below the port settee. They should always be left in the "On" position. There is also a heater fan below the starboard settee that is very powerful but noisy. We choose not to use it
6. To turn the system off, press the rocker switch on the thermostat to the "Off" position and flip the "System Heat" toggle switch to "Off." Always leave the DC breaker labeled "Heater" in the "On" position.

#### Engine Heat Exchange

You can also heat the cabin while the engine is running by turning on the engine heat and turning on the individual fans in the cabins. This will circulate the warm water and using the fans will blow heat out into the cabins.

**IMPORTANT NOTE: THE WEBASTO THERMOSTAT ON/OFF SWITCH MUST BE TURNED OFF BEFORE USING THE ENGINE HEAT SYSTEM.**

Engine Heat Exchange Operation:

1. Ensure that the Webasto System solitary toggle switch adjacent to the thermostat is turned to "Engine Heat."
2. On the DC panel, turn the breaker labeled "Circulation Pump" to ON.
3. Flip fan toggle switches above sink in head and below port settee to "on" position as needed.
4. To shut down the system, turn off the fans and the "Circulation Pump" breaker.

**Portable 120V Electric Heater** on shore power is for marina use. It is normally stowed in the V-Berth hanging locker.

## 19. Lighting

### Highlights

- Flip on the CABIN LIGHTS breaker on the DC panel at the nav station.
- Salon and Stateroom light switches are on the individual light fixtures.

## 20. Refrigeration and Freezer

### Highlights

- Ideal thermostat setting is no. 3 on the dial located at the top back of the fridge.
- Circuit breaker/switches are located on the DC panel in the nav station. They are always ON unless the house batteries do not have sufficient power (below 12.2V).
- Check to be sure there is sufficient battery power to operate the refrigeration equipment all night. Usually there is.

### Details

The large volume for a yacht of this size is pleasing. There is a large counter-top opening and an equally sized side-entry. We routinely purchase our cold goods for two weeks. This is a thickly insulated refrigerator and will function well when adjusted to level 3 on the dial; if turned all the way up, everything will freeze. The refrigerator drains automatically to the sump pump under the salon floor. (See Photo on page 3)

## 21. Sails and Rigging

Your purpose in life at this moment is to sail this beautiful yacht, to enjoy her exceptionally responsive helm, maneuverability and reaction to each change in the wind velocity! Let's begin with the groups of cam clutches on the cabin top. The key lines are labeled and color coded for quick recognition.

### **Starboard side cabin top:**

Main Halyard — Blue

Outhaul — sm White w/Blue fleck

Main Sheet — lg White w/Blue fleck

Reef #1 Tack — Green

Reef #1 Clew — White w/Green fleck





Traveler — Black w/White fleck

### Port side cabin top:

(Traveler — Black w/White fleck (N/V)

Cunningham — Blue

Reef #2 Tack — sm Red

Jib Sheet — Blue w/Red fleck

Jib Halyard —lg Red

Spinnaker Halyard —White w/Blue fleck

Reef #2 Clew — White w/Red fleck

Boomvang — White



**Mast starboard:** black w/white fleck , lazy jacks.

**Boom fore & bottom:** black, topping lift.

### Highlights

- Carbon fiber mast & pocket boom
- Main full battens with bat cars, & lazy jacks system
- 100% furling jib
- Double line reefing from cockpit

### Details

#### Mainsail:

The Yager mainsail is a fully battened, conventional rig that flakes with the aid of lazy jacks into a carbon-fiber pocket-boom for easy stowing. Batten roller cars provide ease when raising and lowering the main.

When attaching the halyard to the mainsail (we keep the main halyard shackled to itself on the deck to keep the noise down); be sure not to foul the halyard on the lazy jack lines.

#### Raising the Main:

1. Remove the sail cover at the mast and unzip the pocket boom sail cover. The zipper starts at the aft end of the pocket boom. Roll and tuck the sail cover into the pocket boom.
1. Attach the halyard to the head of the sail.
2. Steer head-to-wind and maintain.
3. Release mainsail reefing lines, 29lexiglas29, mainsheet, and vang.
4. Raise the halyard at the mast, while someone in the cockpit takes up the slack. If shorthanded, you can pull the halyard from the cockpit, but it takes a fair amount of strength. Watch the battens as they pass through the lazy jack lines to prevent snagging.
5. Winch the halyard up the last few inches to eliminate wrinkles in the luff.

6. Shape the main as the skipper directs: 30lexiglas30 for luff; outhaul for foot.
7. There is silicone sail track lube under the navigation station seat which can be applied to the sail plugs and batten cars if the mainsail starts to give resistance when being raised or lowered.

Lowering the Main: when lowering the mainsail, it will flake nicely for the first 90% of the sail, then do a few tugs on the luff to flake the rest neatly into the pocket boom.

Reefing the Mainsail “ –Reef early and reef often” and “flatter is faster.” This will keep your crew comfortable and you from rounding up. The main has two reef points both of which are operated with a double-line system with lines lead aft to the cabin top. Reefing the main is easy and can be done from the cockpit.

Here's the how to Reef:

1. Ensure the sail stop at the bottom of the mainsail track is hand tight only, no pliers.
2. De-power the main by heading up while easing the main sheet.
3. Be sure the topping lift will hold up the boom by checking for and removing any slack.
4. Let the tension off the boom vang.
5. Lower the mainsail halyard so that the reefing point is about 3 feet above the boom and cleat off the main halyard.

For Reef #1

1. Locate the two lines on the starboard group, solid green for the luff and white with green flecks for the leech that are side-by-side in the group of cam lock clutches.
2. Pull them together, one in each hand, to draw down the luff and leech reef points close to the boom.
3. The new clew should be at the boom and the new tack should be just above the boom to allow space for the flaked sail without popping out the sail stop.
4. Raise the main halyard to tighten the luff; shape sail as skipper directs.

For Reef #2

1. Locate the two lines in the port group of cam lock clutches, solid red for the luff and white with red flecks for the leech, same diameter, and they are separated by the three large cams.
2. Pull them together, one in each hand, to draw down the luff and leech reef points close to the boom.
3. The new clew should be at the boom and the new tack should be just above the boom to allow space for the flaked sail without popping out the sail stop.
4. Raise the main halyard to tighten the luff; shape sail as skipper directs

Headsail/Jib:

Cecilia is equipped with a smart 100% self tacking Yager jib trimmed to a Harken self-tacking cabin top

Deploying/unfurling the Jib:

1. Prep Furling Line and Jib Sheet
2. Keep light tension on the roller furling line as releasing to prevent a rat's nest on the drum.
3. Pull in the jib sheet to roll out the sail.

4. Furl as needed In heavy winds to reduce boat heel when sailing under reefed main.
5. To tack, simply turn the wheel until pointed to the new heading; jib will move to the opposite side.

#### Furling the Jib:

1. Keep light tension on the Jib sheet when releasing the line to have a snug sail wrap around forestay
2. Pull in the roller furling line
3. Jib clew should be pointed aft
4. Secure the furling line and the Jib Sheet

#### Spinnaker:

Cecilia is no longer equipped with an asymmetrical spinnaker. As you may know, the spinnaker is the most vulnerable of sails.

## **22. Showers and Sump Pump**

#### Highlights

- Head shower 31lexiglas panels fold into stall.
- Shower sump pump circuit breakers at nav station stays in on position; float switch.
- Transom shower.

#### Details

The sink faucet spigot will become a shower spray when the nozzle is pulled out.

Both the shower water and the head sink drain into the sump pan located in the bilge.

Leave the sump switch on the electric panel on all the time to prevent bath water, toothpaste, or shampoo from getting into the bilge.

The sump pan has an automatic float switch.

Use the sailors shower to conserve water when cruising: water on – wet down; water off – soap up; water on – rinse.

Water is heated automatically when the engine is running under load and when the Web heater is operating. The hot water is stored in the insulated 6 gallon tank located in the lazarette. It can also be heated electrically when on shore power.

The transom shower features both hot and cold water. To operate, pull the T handle toward you. That brings water to the shower head. Turn the T handle left or right to adjust temperature. Depress the spring loaded top of the shower head for spray.

Note: shower sump can become emergency bilge pumps if water rises to that level.

## **23. Spares and Tools**

Common spares: Location – under nav seat

Contents: oil absorbent pads, fuel filters, oil filter, impeller, (Jabsco Pump in Head shelf)

Heavy Duty spares: Location - V-Berth Locker under Mattress in Bins

Contents: spare float switch, spare electric bilge pump, spare domestic water pressure pump(s), spare engine starter, spare engine alternator, bin with spare fuel filters, light bulbs, toilet one-way check valves, spare shower drain pump. Note: the spare Jabsco head pump and spare macerator are in cabinets in the head.

Tools: Under the nav seat. (outboard tools)

## 24. Storage

The amount of storage for a yacht of this size is impressive.

Food:

- a) Galley cabinets condiments, spices, olive oil
- b) Salon cabinets port and starboard
- c) Table at the mast, spirits
- d) Port salon cabinet, wine

Clothes: Each stateroom has a hanging locker and enclosed shelves.

Tools: Under the nav seat.

Fenders: Lazarette

Dock Lines: Lazarette

Cooking utensils: In the galley drawers, and cabinet

## 25. Stove & Oven

The propane for the stove is from a tank on the starboard side of the cockpit. This area is vented and isolated from the rest of the boat. The tanks are filled every 2 weeks. One tank normally lasts much longer than that.

### Highlights

- The stove/oven are propane-fired.
- There are four propane flow controls: tank valve, LPG electric panel switch, Xintrex and stove knobs.
- There is one 2.5 gallon steel propane tank in the cockpit propane locker, starboard side. The locker is vented overboard for safety.
- The San Juan Sailing staff checks these tanks weekly to assure that you don't run out.
- For safety, we turn off the solenoid switch on the electric panel after stove use.
- Caution: propane is heavier than air. If leak is detected, extinguish all flames and open all hatches and doors.

## Details

### Lighting a Stove Burner:

- Open the hand valve on the propane tank all the way.
- Make sure the gimbal locks at the top of the stove/oven is secured. That way, if someone leans on the stove or grabs the oven handle, it won't tip and spill pot/pans on the cooktop.
- Make sure all stove controls are in the "off" position.
- Turn on propane solenoid switch at the electrical panel labeled "LPG Control".
- To the left of the stove on the wall you will find a mounted Xintex LPG control. Check to make sure the red "Danger" detection light is not lit. Push the left button labeled, "Valve On/Off". You will hear a click.
- Light a BBQ lighter and hold the flame near the burner edge or you can push in the ignitor button - you should hear a clicking and see a spark at the burners.
- Push the corresponding burner temperature knob in and turn to the "Light" (flame symbol) position. Note that if the BBQ lighter won't light you don't need a flame...just the spark
- Hold the knob for 5 to 10 seconds to make sure propane is feeding properly.
- Turn the knob to the desired heat level.
- When finished, turn off stove knob, the Xintex and the LPG control on the electrical panel.



### Lighting the oven

- Open the hand valve on the propane tank all the way.
- Make sure the gimbal locks at the top of the stove/oven is secured. That way, if someone leans on the stove or grabs the oven handle, it won't tip and spill pot/pans on the cooktop.
- Make sure all stove controls are in the "off" position.
- Turn on propane solenoid switch at the electrical panel labeled "LPG Control".
- To the left of the stove on the wall you will find a mounted Xintex LPG control (see photo above). Check to make sure the red "Danger" detection light is not lit. Push the left button labeled, "Valve On/Off". You will hear a click.
- Push in the oven knob and simultaneously turn to the left while also pushing in the igniter button.
- You will hear a clicking sound. That is the pilot light. Continue to depress in the knob and keep turning left. The burner should light immediately.
- Continue to hold the knob in for 5-10 seconds after the gas has ignited as sometimes air pockets form in the line and the flame will extinguish if you do not keep the knob held in.
- Turn the knob to the desired heat level.
- When finished turn off oven knob, the Xintex, and the LPG control on the electrical panel.



## 26. Water

### Highlights

- Deck fills are located port side above the tanks - one amidships & one forward labeled "water."
- Two water tanks totaling 60 gallons.
- Water pressure switch is on the electrical panel, starboard side of the salon.
- There is no water tank gauge.
- Water tank selection valves are located under the galley sink. Open only one tank at a time, starting with the bow tank to monitor water usage. See photo.
- Hot water is produced by three methods: 1. Shore power 2. Engine 3. Webasto Furnace. See details below.

### Details

#### Water Pressure Switch:

The water pressure switch is at the electrical panel. Please switch off when motoring or sailing. Please switch on only when water is needed. The water pump will keep running when the tanks are dry and you will not hear it while sailing or motoring. The pump can burn out.

#### Water tanks:

Cecilia has two 30 gallon water tanks. One is located under the forward cabin and the second is located under the port settee. Selection valves are located under the sink. Use one tank at a time to monitor water usage. Note: Water is not available at State Parks

#### Filling the Water Tanks:

Note that the vents/overflow piping for the water tanks is routed to the bilge and the galley sink manual water pump faucet rather than overboard. You will need to have someone down below while filling the tanks to be looking for water coming out the vents in order to know when the tanks are full. Note that both tank selection valves under the galley sink need to be OPEN as well as the nozzle on the end of manual water pump faucet needs to be twisted OPEN for overflow water to come out the faucet.



#### Hot Water:

Water is heated automatically when the engine is running under load and when the Webasto furnace is operating. The hot water is stored in the insulated 6 gallon tank located in the lazaret. It can also be heated electrically when on shore power.

- It takes about 30 minutes of running the engine under load to get the water hot. CAUTION: Engine heated water may be scalding hot. Please BE CAREFUL!
- When on shore power, you can heat your water using electric coils by turning on the WATER HEATER switch on the AC panel.

State parks do not have pressurized water to refill tanks, but all points of civilization do.

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We hope this information helps. Have a great time!!