

Owner's Notes

Rhumb Runner
Jeanneau 54 DS

Dear Friends,

Welcome aboard Rhumb Runner!

We have just recently placed Rhumb Runner in charter with San Juan Sailing. Before that, we were long time charter guests of SJS. We have been in your shoes, so to speak! We've watched designs come and go, and frankly, we think the Jeanneau 54 DS is the finest design we've seen. And the sailing is superb.

We've made many wonderful cruising memories in the San Juan Islands and points north...our hope is that you enjoy Rhumb Runner as much as we do. If something comes up, please feel free to give us a call at 206-388-6812.

If you can think of anything...anything at all...that would make her more enjoyable for you, please let us know through San Juan Sailing. We've tried not to overlook any detail in our effort to make her our ultimate sailboat.

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

Sincerely,

Grace and Mike Chorey
Rhumb Runner
@svRhumbRunner

Rhumb Runner Boat Specifications

LOA: 54' 11"

LWL: 48' 6"

Beam: 15' 11"

Year Built: 2007

Lt Displacement:

38,739lbs

Ballast: 11023 lbs

Draft: 7' 6"

Water: 164 gallons

Fuel Tank: 100 gallons

Holding: 3 domestic

Masterflush electric
marine heads, each with
holding tank and deck
plates

Engine: Yanmar 4JH-3-THE, 100 HP. 22" three blade feathering bronze MaxProp.

Sails: LeisureFurl in-boom furling main. Furling staysail (jib) and furling headsail (genoa).

Electronics: B&G color chart plotter mid-helm; radar; AIS transponder (send/receive); Raymarine autopilot; B&G multi-function units at both helms and nav station provide boat speed, wind speed/direction, depth, log and temperature; Icom VHF with cockpit remote; compass

Staterooms: 3 doubles

Headroom: Ample

Heads: 3, freshwater electric flush

Refrigerator: Frigoboat side-entry refrigerator and a second top loading refrigerator next to it. Isotherm ice maker (AC power only) located under galley sink.

Other: 6 electric winches, windlass, bow and stern thrusters. Kisae Abso 3000 inverter/charger. 9KW Onan generator.

Rhumb Runner Nuances

1. **Fenders:** We stow these in the bow storage locker, just aft of the anchor locker.
2. **Thrusters:** Rhumb Runner is equipped with both bow and stern thrusters. The thrusters make docking, even a boat of this size, much simpler. The stern thrusters are lowered into the water on an arm when activated, so travel only at very slow speeds (i.e. forward or reverse idle) when deployed. Thrusters run off a dedicated 24v battery bank, with a breaker in the 24v battery panel on the companion way stairs in the galley.
3. **Winches:** All 6 winches are electric. Take great care with hands and fingers when operating. When using the cabin winches to raise the mainsail, use low speed only. Also pay close attention to the load on the winches and stop immediately if the winch encounters resistance. In a battle between an electric winch and fingers, hands, sails and rigging, the electric winch will always win...
4. **Heads and holding tanks:** Electric freshwater toilets; after liquid use, we push lower toggle: "drain" then "fill", then "drain" to refresh. For solids push "fill" before above. Holding tanks are gravity drain, valves under sinks. Please...do NOT overfill. Seacocks closed in harbors/coves please; USCG regs say closed in all US waters.
5. **LeisureFurl in-boom roller furling mainsail:** The fully battened mainsail is furled on the boom. This makes the weight of the boom considerably heavier, and care should always be taken not to release or change the angle of the topping lift – it is optimized for the LeisureFurl system. Pay close attention to the detailed instructions for furling and unfurling the mainsail so that the sail does not become stuck while partially deployed.
6. **Draft:** Please note our draft is 7' 6" and the rocks are hard. Very hard.
7. **Heating systems:** There are two independent climate control systems on the boat: 2 diesel heaters (one for each side of the boat); and a reverse cycle air conditioner and heat pump that runs off 50amp shore power or generator only. The diesel heaters are usually the only system we use.
8. **Water maker:** Currently disabled. If you are planning a multi-week cruise, contact San Juan Sailing office at least two weeks before your charter to arrange for enabling this system before your cruise.
9. **Anchor lights:** The anchor, steaming and deck lights are located on a rotary switch at the starboard helm station. Pulling out on the rotary switch will turn on the deck lights. Note that it can be easy to accidentally pull out on this rotary switch and not realize that the deck lights have been turned on. These have a high-power draw and will drain the battery if left on for more than a few hours.
10. **Mooring Buoys:** The max length for a single boat on all WA state park buoys is 45'. At almost 55', Rhumb Runner is far too long for any state park buoy, and likely most buoy's you would ever tie up to in the area. The boat carries plenty of anchor rode, and an oversized anchor. Leave the buoys for the daysailers...

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Emergency Equipment

Highlights

- **4 fire extinguishers:** port lazarette in cockpit; starboard, aft cabin; port side of salon; port side of forward cabin; bow storage locker.
- **6 inflatable vests:** 2 in each hanging locker in all 3 cabins. NSO: please check for “green” visible at bottom of clear canister before each cruise. That verifies the auto-inflate function when immersed. We always wear these when working the deck and often in the cockpit.
- **Fog horn, 3 emergency flares.** Below nav seat.
- **Emergency bilge pump:** Stowed beneath starboard helm seat. Note: if water rises above floorboards, you can use shower sump pumps also in emergency.
- **Emergency tiller:** Long curved pipe in port cockpit locker.
- **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.
- **VHF** at nav station & at helm. Keep tuned to channel 16.
- **Cockpit cushions.** In case of crew overboard, throw anything that floats, quickly. Fenders, cushions, etc.

Through hulls:

A schematic showing through hull locations is in the Charter Guest Reference Manual aboard, facing the title page of these Notes.

Through-hull locations fore to aft:

1. Forward head, under sink, there are 3 thru hulls:
 - a. Raw water intake (keep closed - not used)
 - b. Holding tank drain (closed in US waters)
 - c. Sink drain (open)
2. Forward cabin, under aft floorboards; centerline: transducers for depth sounder and knot meter.
3. Galley, port side, under sink there are two through hulls:
 - a. galley sink drain (open)
 - b. Salt water seacock (closed - open only if washing dishes with saltwater foot pump).
4. Both Aft heads, under sink there are three through hulls:
 - a. raw water intake (closed, not used)
 - b. holding tank drain (closed in US waters)
 - c. sink drain (open)
5. Engine compartment, aft, there are two through hulls:
 - a. engine raw water (front of engine)
 - b. engine shaft

Anchors and Windlass

Highlights:

- Please be careful of fingers and feet around the windlass
- 88lb Rocna primary with 400' chain
- Windlass breaker is at the top of the bow locker (*not* the chain locker), behind a compartment marked "Windlass Breaker".
- Windlass controls are also located in the bow locker, on a shelf just above the ladder.
- Fortress secondary in cockpit locker between the helms, 30' chain/130' rope
- Salt and fresh water washdown
- Snubber always hooked unless chain is moving
- Chain can build into mountain in chain locker when retrieving
- 600' polypropylene stern tie line in cockpit locker between helm stations

The main anchor is an 88lb Rocna mounted on the bow, with 400' of 1/2" chain marked as follows:

- 40': Red
- 150': White
- 250': Blue
- 350': Red

There are both fresh and saltwater washdown pumps for the anchor. Attach the hose, found in the bow locker, to the appropriate washdown port and activate the pump using the *Seawater Pump* breaker on the main DC panel.

Snubber

There is a short snubber for use when the anchor is stowed on the bow roller. This takes the load off the windlass when underway. When the anchor is deployed, this snubber can hang inside the anchor locker on the metal bracket. Once the anchor is deployed, always hookup the bridle/snubber (found in the bow locker on a shelf at the top of the ladder). This should be done before backing down on the anchor to firmly set it. To use the bridle, first connect one end to a bow cleat, run through the bow chocks (similar to how dock lines would run) and then attach to the anchor chain. Then attach the other end of the bridle to the other bow cleat. Ensuring that there is always one end of the bridle attached to a bow cleat will prevent the heavy bridle from falling overboard when hooking it up to the chain.

To Deploy Anchor:

1. We check tide tables to determine current water level and amount of drop while anchored.
2. Weather (usually channel 4: "Northern Inland Waters") helps select an anchorage.
3. Turn on the windlass breaker, located at the top of the bow locker (*not* the chain locker), behind a compartment marked "Windlass Breaker".

4. The windlass controls are also in the bow locker (*not* the chain locker), on a shelf at the top of the ladder.
5. Normal for the islands is a 4 to 1 scope, bow to bottom. Add 5 feet to depth sounder 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.
6. To avoid hitting the hull we 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!). Otherwise, the flukes anchor into the fiberglass of the bow (Ouch!).
7. With one fluid motion we lower to approximately the number of feet on the depth sounder so the anchor is near the bottom.
8. A signal to the helmsman prompts reverse at idle speed while deploying rode to the desired scope.
9. 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. Note that if there is a heavy wind, the combination of the heavy wind and reverse idle of the 100HP engine can put a great deal of force on the anchor before it has had a good chance to dig in. In this case, it may be prudent to wait 5-10 minutes for the anchor to settle before backing down on the anchor in reverse idle.
10. Finally, we reset the snubber. Then ease the windlass so it is not under strain.
11. The anchor light, when you're ready to turn it on, is located at the starboard helm station (see photo below). Turn the so the Anchor icon is in the 12 o'clock position to activate the anchor light. Turning to "O" will turn the lights off. Note that even a gentle pull out on this dial will activate the deck lights. This is easy to do by accident, and will quickly drain the batteries.



In storm conditions (or storm forecast), you can increase scope if there is adequate room to leeward. The secondary anchor is available for additional holding power if a storm is anticipated, but best if set before the storm hits.

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. Use the mop handle, or boat hook, 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. The *Seawater Pump* circuit breaker is at the nav station.
2. Start the engine, given that the windlass draws from the engine start battery.
3. Make sure the windlass breaker (found at the top of the bow locker) is on.
4. Proceed in forward idle as necessary to keep the anchor chain near vertical while using the windlass to haul up the anchor chain. Never use the windlass to pull the boat forward on the anchor chain. Especially in calm winds, forward idle can move the boat forward faster than the windlass can bring up chain. In which case the chain will no longer be vertical, and will begin running under the boat. When this occurs, move to neutral and allow the boat to settle and the anchor chain to run vertical off the anchor roller again.
5. As needed, we clean the chain with the salt water pressure hose during retrieval (run hose outboard of your foot so that it doesn't get caught in windlass).
6. A mountain under the windlass can jam it and in rare cases cause a wild gravity runout of rode. If that happens, stand clear for safety. We avoid that chain "mountain" by pushing the chain forward in the well as it is retrieved, using the boat hook or mop handle.
7. To nest the anchor without chipping the hull, the anchor may need to be swiveled – the boathook can help with this too.
8. We use the windlass to bring the anchor shank up and over the bow roller in one continuous motion, then nest the anchor by hand.
9. Clip the small windlass snubber to the chain (normally stored in the chain locker while anchored), and then fit the large loop over the windlass drum. Slightly lower the anchor to rest the anchor on the snubber rather than the windlass.
10. Turn off the Windlass and the *Seawater Pump* breakers!

Barbecue

Highlights

- In-line valve in propane locker
- Please clean grill when finished

The propane fired stainless steel BBQ is mounted on the port stern rail and is permanently connected to the dual propane tanks below. To use the BBQ, make sure 1 propane tank is open (we recommend only opening 1 tank and leaving the other closed as a reserve), and that the LP Gas switch is turned on at the DC panel at the nav station. Open the BBQ lid, turn the dial to light and press down while lighting with a long handled lighter (found in the galley). Once lit, continue to hold the temperature dial down for another 10 seconds, and then adjust to the desired level. The BBQ typically needs about 5 minutes to completely warm up. Please find the BBQ cleaning brush attached with a SS lanyard for convenient cleaning when the BBQ cools.

Batteries/Charging/Inverter

Highlights

- No need to touch battery switches.
- House battery bank: 8 x AGM
- Separate starting battery for engine and generator
- Three additional 24v battery banks: One for the bow thruster and windlass, one for the stern thruster, and one for the electric winches.
- The 24v batteries are controlled from a 24v panel in the galley, along the companionway steps. We generally leave these switches on. However, you may choose to turn off the bank powering the winches if you are concerned with them operating at anchor, or on the dock. This can be helpful if children are onboard.
- Never let the voltage drop below 12.2V. Running the generator or engines for 1-2 hours a day will generally keep the batteries charged.

Details

- We check both amp hours used and the voltmeter before retiring for the night, then check both again on engine startup next day to assure we are charging properly. The system charges the house bank first, then the start bank.



We check the Battery Monitor a few times a day to ensure the voltage doesn't drop below 12.2V.

The batteries can be charged by:

1. Running the engine
2. Shore power
3. Generator

Battery Monitor: Circular gauge at the front of the Nav Table (see photo above). Monitor both battery percentage (should never be below 60%) and voltage (should never below 12.2V).

The Inverter draws from the house bank to provide 110v power for the microwave (we are careful to limit the microwave to reheating, not cooking), ice maker and TV. Take care not to use several devices simultaneously as the inverter only has a 3000-watt capacity.

We recommend always running the generator (or engine) if you plan to use any AC devices. The power drain from the inverter is so high that the house batteries can be drained very quickly. The generator is also required if you chose to run the Reverse Cycle/Air-Conditioning system.

In general, we find that running either the main engine, or the generator, for 1-2 hours a day will keep the batteries topped off.

Berths and Bedding

- Each berth has a “breathing barrier” under the cushions to dissipate body and boat moisture. No need to raise the cushions for airing each morning.
- The aft cabins feature the same extra thick mattresses and wrap around mattress pads, and have a crushable spun fiberglass breathing barrier underneath.
- Finally, each berth has feather/down duvets. SJS provides 2 sheets and pillow cases for each berth.
- The salon table does **not** convert to a berth.

Bilge Pumps

The emergency hand bilge pump is located at the port helm station. The handle is in the starboard lazarette.

The electric bilge pump is located next to the fresh water pumps under the salon floorboards just before entering the forward cabin. The *Bilge Pump* breaker on the DC panel should *always* be left on.

Note: in emergencies, the shower sump pumps can be turned on if water rises into the heads.

Bow and Stern Thrusters

Highlights

- Thruster switch is located on 24v bank panel in the galley marked “Thrusters”. This panel is in a compartment on the outside of the companionway stairs in the galley.
- Activate by holding both “On” buttons at starboard helm
- **Use minimally and only at idle speeds.**
- Although thrusters can be used individually, power is controlled only to the pair.

The thrusters sound a beep and digital screen at helm will indicate “on”. We recommend a short burst to test both before use. Shuts itself off after 12 minutes of non-use.

We seldom use the thruster...but always have it activated in a marina in case we need it.

Caution: the stern thruster is deployed via a deployable arm that can be broken off very easily if you're moving too fast forward or reverse. It's also critical to wait 30 seconds after deploying the thrusters before using them. This will ensure the stern thruster arm has completely deployed

before use. Please ensure stern thruster is only utilized at very low speeds (idle or less), and only when necessary.

Dinghy and Outboard

Highlights

- West Marine RIB-350 Hypalon
- 15HP engine on davit. Very heavy...
- Tow 6' off stern – cleat off and tie bitter end
- Please don't tow with outboard or leave on overnight

The custom block and tackle outboard davit at the starboard helm make transfer on and off the dinghy simple and relatively strain-free.



We have learned these precautions, please:

1. Never tow the dinghy with the outboard on the dinghy, or overnight. Always transfer the outboard to the sailboat transom. It could flip and sink.
2. The outboard takes straight gas. The gas tank is buckled into the dinghy and should stay there. It is topped 2/3 (for expansion in hot weather) by our staff. We will top it off when you return the boat, no charge. For safety, please never store gasoline in a compartment.

The 30' polypropylene dinghy painter floats. We suggest that you tow the dinghy about 6 feet off the port quarter, away from the starboard engine exhaust (to avoid any sooting of the dinghy). Be mindful of the location of the painter when you use the cabin heater to avoid melting the painter and losing the dinghy. The 6' scope also avoids wrapping the painter around the engine shaft when in reverse, and when the bow is slightly raised underway, you'll reduce drag – sailing faster.

Dinghy painters inexplicably come loose (and dinghies disappear), so we suggest you tie the bitter end to the rail. In a storm, towing on the low side makes it

unlikely the dinghy will flip in the wind/waves.

When transferring the engine from the davit to the dinghy, we suggest a side-tie-up of the dinghy (as shown below) where the transom of both Rhumb Runner and the dinghy are in-line:

When raising or lowering the dingy from the davit, take care not to knock the engine on the transom of the boat – she’s heavy! – and leverage the cabin-top winch as needed to slowly lower and raise the motor.

Note: when securing the OB on the davit, ensure that you’ve tightened both engine clamps all the way to ensure there is no space between the davit and the engine mount. This will ensure she’s balanced and secure.



Starting procedures for outboard:

- Plug fuel line into the motor.
- Open vent on gas tank.
- Slowly pump fuel link ball 5 times (1 sec each pump) until firm
- Pull out choke if the engine is cold
- Flip switch on engine marked “Run/Stop” to “Fun”
- Ensure throttle is in neutral
- Pull engine cord to start

Note that the engine takes a while to heat up, so be mindful of closing up the choke too quickly. You’ll likely be well underway by the time you can begin closing the choke.

Dodger and Bimini

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.

Electrical Panel



Highlights:

- DC panel is located on the left side (see photo)
- AC panel is on the right. Either shore power, or the inverter is required to energize the AC panel.
- Never turn off bilge pump or battery charger.
- Leave *USA LP GAS CONTROL* off unless actively using propane.
- AC main breaker is at aft end of starboard helm seat, in case it trips (rare)

Electronics

Highlights

- New B&G chart plotter and instruments were installed in 2022.
- iPad mounted at nav table has local charts downloaded and can be used for offline route planning, or mirroring the chart plotter screen.
- AIS is enabled and shows most commercial vessels as triangles on the chart plotter
- Autopilot is enabled via the “Autopilot” circuit breaker on the DC panel
- VHF is enabled via the “VHF” circuit breaker on the DC panel

Chart Plotter:

1. At nav station, flip “Nav Instruments/Electronic Navigation” circuit breaker switch “on”.
2. At nav station, ensure master chart plotter is on and running.

3. At helm unit, press "Power" for about 2 seconds (lower right).
4. Press for "ok".
5. Press the + or - - to zoom in or out.

We respectfully ask that you not adjust the display settings. Please use the chart plotter only for position finding, please do not adjust the default settings. (Sorry, but if we need to call a professional to reset to defaults for the next guest, that will be on you).

We use the paper Maptec Chartbook for pre-planning, for continuous orientation underway and for pre-locating rocks and reefs on our planned route. We use the chart plotter to track our position underway in detail, for occasional confirmation of chart position, and for navigating in coves.

Autopilot

To turn on autopilot, make sure the "autopilot" breaker is set to "on" on the DC panel. Then, at the helm press "auto" to set steering and course. To turn off autopilot at the helm, simply press the "standby" button.

A.I.S. - Automatic Identification System

The triangle points in the direction another vessel is moving and if you move the cursor over the triangle the system will give you additional information (name, size, speed, etc.) The system also transmits this same type of information about your boat to other vessels with A.I.S. It comes on automatically when the chart plotter is turned on.

Depth Sounder

The depth sounder is calibrated in feet and is set to read from the transducer, which is about a foot below water level. If you assume the reading is the top of the water, you will have a very modest 1-foot safety margin. Due to rocks, we get nervous in anything less than 30 feet underway and 15 feet in an anchorage.

Note that depth sounders sometimes give false readings in really deep water. In the San Juans, 400'-600' are common depths in some channels and you may see false readings as the sensitivity on the transducer increases in an effort to give some reading, often from changes in water density, salinity, or underwater debris. Due to those changes in depth readings (especially in very deep water), we do not set depth alarms, but always know our position on the chart.

Please note: You cannot rely on the depth sounder to avoid rocks! It is possible to go from 300' to on the rocks in less than 30 seconds under sail in some areas! The answer is simple: we always plan our route on the chart and track our position on the chartplotter. Rocks are clearly marked.

VHF radios

For your convenience, we have “tagged” two channels for you: 80 (San Juan Sailing) and 16 (the emergency and contact channel). Please remember to touch the “scan” button on top of the remote mike after each use so that you automatically monitor channel 16 while underway.

The “WX/CH” button accesses the weather channels (channel #4 is most often in range). We listen for “Northern Inland Waters”. Pressing “WX/CH” again returns the normal channel.

Engine

Highlights

- 100 HP Yanmar diesel engine
- 3 blade feathering Max-prop.
- You can access the engine compartment underneath the companionway stairs, or via access panels in either of the aft cabins
- 2200 rpm is economy cruise
- 2500 rpm is fast cruise
- 2800 rpm is emergency fast cruise

The raw water strainer is at water level. No need to open or clean unless the engine overheats. When replacing the lid, **please avoid over-tightening**. Oil dipstick access is via a panel in the starboard aft cabin. Mechanics check the oil levels weekly.

Starting procedures

1. Assure throttle/gearshift is in neutral. To use the throttle in neutral, pull OUT on the chrome cylinder lever at the base of the throttle. In cold weather, we push the throttle forward to accelerate slightly for starting at about 1100 rpm for warm-up.
2. Engine key is required for start – turn to the right until you hear the engine turn over. Ensure the plastic covering for the key closes or it will catch on your helm!
3. Listen/look for water coming from starboard side of the transom.
4. Most engines idle too long, causing carbon buildup. If in a marina, we start the engine about 5 minutes before casting off the lines. Same protocol if hoisting anchor.

Running:

- 2200 rpm is economy cruise, about 7.2 knots, approx. 1.3 gph, range: 40 hours, 294 NM
- 2500 rpm is fast cruise, about 8 knots, approx 1.5 gph, range: 35 hours, 254 NM
- 2800 rpm is emergency max cruise, for short burst only.

We are careful to pause 1-2 seconds after the “click” into gear before accelerating, to protect the transmission. And, of course, we always pause when changing from forward

to reverse.

Shutdown:

1. Cool at modest rpm for 2 minutes after running at cruising speed, mainly if shutting down after the wind comes up. It's not necessary to cool down after entering a marina or anchoring, since the lower rpm will have cooled engine.
2. Don't touch the key yet! Push the rubber-covered button on the engine panel to engage the electric shutoff solenoid. If the key is turned off prematurely, electrical damage can occur and the solenoid will not engage to shut off the engine.
3. After turning off the engine to sail, slipping into reverse momentarily stops prop counter-rotation and feathers the Max-prop (you will sail faster!). A return to neutral prevents accidental start of the engine in reverse.

Engine overheat:

If the engine temp alarm sounds, or steam comes out the exhaust, please check the amount of water coming out the exhaust. If it is little or none, the most likely cause is eelgrass plugging the raw water strainer.

The raw water impellers are replaced annually as part of preventive maintenance. If the engine overheats with adequate water flow out the exhaust, check the coolant level in the engine.

Entertainment Systems

Highlights:

- Fusion stereo has 2 speaker zones: cockpit and salon and requires the "Hi Fi" switch on the DC panel to be turned on.
- Fusion stereo is located in a port side cabinet in the salon, just before entering the forward cabin.
- Use Bluetooth to connect your phone to the stereo and stream music.
- Built-in TV and DVD player on the starboard side of the salon. TV requires AC power, and will drain the batteries quickly if the inverter is used without either engine or generator power.

To connect your phone to the Fusion Stereo:

1. Turn on "Hi Fi" switch on DC breaker panel.
2. Turn Fusion stereo in cupboard on port side of salon near fwd cabin door.
3. Press the menu button (3 horizontal lines), select "BT", then "Connections". Push in on the wheel button to select a menu option.
4. Select "Discoverable", then look for "RR-Fusion" on your mobile devices Bluetooth menu.
5. Next select "Paired Devices" on the Fusion and make sure your mobile device is selected.

6. Once your phone is selected on the Fusion System, you should be able to play music from your phone.

To switch music between the salon and cockpit, press in on the volume button, turn the volume knob to select the zone you want to control, press in on the volume knob to select that zone and then turn the volume knob again to control the volume in that zone.

If the Fusion Stereo ever gets set to an input other than Bluetooth, push the Input button (arrow button, right next to the Menu button) to open the Sources screen and select BT.

The TV and DVD player require the *AC T.V. Plugs* switch on the AC panel to be turned on. As always, any circuits on this panel require either the inverter or shore-power. Running the TV off of the inverter can drain the batteries quickly, so we recommend only doing this if the engine or generator is running.

There is a DVD player (which looks like a car stereo deck) just to the left of the TV as you are facing it. Press on the top of the unit to drop the front face down which will expose the DVD slot. The TV needs to be on Input 1 for the DVD player. There is also an HDMI cable that runs underneath the TV that can be plugged into a laptop. The remotes for the TV and DVD player are usually stored either underneath the DVD player, or in the stereo cabinet.

Fuel

Highlights:

- Fuel gauge is on the engine panel at the starboard helm
- Fuel fill is on the deck near the port helm.
- **There is a 2nd fuel fill on the port side, near midships. Please do not fill this tank**

The boat is equipped with two fuel tanks, an aft tank that holds approximately 108 gallons, and reserve tank that hold 50 gallons. The reserve tank does not feed either the engine or the generator. Fuel must be pumped from this tank into the primary tank. We leave this tank empty as it is only intended for long-range cruising and we don't want the fuel to expire. Transferring fuel between the tanks runs a risk of overfilling the primary tank and is a procedure you shouldn't have to hassle with.

When filling fuel, observe the following precautions:

- Use only diesel gas
- Make sure you are only filling the diesel deck-fill located near the port helm. **Please don't fill the one at midships.**
- Listen carefully as fuel fills to hear fuel filling up the pipe between the fuel tank and deck-fill. This is when you should immediately stop filling, and check the fuel gauge to validate it is full. Do not top-off the tank. Stop when the fuel gauge reads full.

- The fuel gauge only operates when the key is in the ON (not START) position. Occasionally turn-on the ignition to check progress on the fuel gauge.

Heads and Holding Tanks

Highlights

- All toilets are electric fresh water.
- The *Toilet Pump 1*, *Toilet Pump 2* AND *Water Press Pump* breakers on the DC Panel must be turned ON for the electric toilets to operate.
- Holding tanks are gravity drain.
- There are two gray rocker switches. The switch on top is “flush”. It brings in domestic fresh water and pumps it out simultaneously. The switch on the bottom separates those operations. Pressing one end brings in water, pressing the other end pumps it out.
- Fresh water flush minimizes odors.
- Electronic tank monitor above the head on each tank.

Rule of the Sea: The person who clogs the head, unclogs the head.

Experienced sailor rule: To avoid the “rule of the sea” above, nothing goes down the toilet that hasn’t been digested. Please place feminine articles and toilet paper in the waste basket, plastic bag, or zip lock...makes for a much more pleasant cruise!

Here’s what uses the least water:

For liquid effluent:

1. Use the toilet
2. Press the “drain” side of the lower rocker switch to pump out the liquid.
3. Briefly toggle it to “fill” to rinse, then back again to “drain” to pump out.

This method uses only about a cup of your fresh water supply per flush and keeps the toilet fresh.

For solid effluent:

1. Press the “fill” end of the lower rocker switch to bring in a quart or so of fresh water.
2. Use the toilet.
3. Press the “drain” switch until the solids are evacuated, then press “fill” and “drain” as above. Sometimes the “flush” upper rocker switch is needed to remove everything.

**Holding Tanks:**

The holding tanks are approximately 10 gallons each. One is located above each toilet. There is no Y valve. The holding tanks are above the water line. Each tank has a deck fitting for use at a pumpout facility. Alternatively, the large seacock, accessed under the head sink, will evacuate the holding tank by gravity. There are tank gauges on

We urge you to use shoreside facilities for solid effluent when moored in shallow bays and marinas where solid effluent has a measurable adverse impact...or the holding tank. Be aware that discharge in deep water is permissible in Canadian waters, but USCG regs prohibit such discharge in US waters. The state director of salt water quality told us that urine from boaters has no adverse impact on marine waters. Some sailors maximize capacity by designating one head for liquids only (with the seacock open) and the other for solids only (with the seacock closed.)

Use the tank monitors to check the level of each tank. Tank monitors are located above each head. Press the "1" on the monitor to turn on the monitor. Given that the tank monitors aren't 100% accurate, treat 3/4 full as 100% full, and plan on emptying the tanks accordingly. If the holding tanks are overfilled, effluent will overflow through the vents, which gives foul odors and dirties the hull.

Depending upon the number and type of flushes above, and the number of people aboard, each holding tank may hold about one to two day's usage. Designating a "liquid only" head extends that to 3 days or more.

Generator

The generator can be used to charge batteries while on anchor and is preferable to running the engine while on anchor as it uses less diesel and is quieter. Running the generator will also enable you to use Inverter powered systems like the Ice Maker and Water Maker.

The generator cannot be used while underway, or on shore power.



Startup Steps:

1. On the Onan GenSet panel, hold the top of the rocker switch in the start position for approximately 10 seconds. You'll first hear a fan kick on after a few seconds, and finally the generator. The generator is located under the cabin sole, at the bottom of the companionway steps.
2. Once the generator starts, wait 2-3 minutes to let it warm up.
3. After warm-up, slide the cover on the transfer switch (located on the AC panel, see photo above) up to reveal the Generator breaker switch. The shore power AC breaker switch needs to be in the off position for this cover to slide up. This prevents the generator from

energizing the 115V AC system if the shore power breaker is on. Flip the Generator switch to on.

4. Switch on the appropriate 115V AC breakers. **Avoid flipping them all on at once so that a sudden load isn't placed on the generator all at once, which can trip the generator breaker.**
5. You'll want to make sure the inverter panel is on. Hit the power button on the "Abso Inverter Charger" panel just to the left of the DC breaker panel.

Shutdown Steps:

1. Flip the Generator switch to off on the AC transfer panel. This kills power from the generator to the 115V AC system.
2. Wait 2-3 minutes to let the generator cool down. Similar to the 2-3 minute warmup, it's best to allow the generator to run for a few minutes with minimal load before shutting down.
3. Hold the bottom part of the rocker switch on the Onan GenSet panel to shut down the generator.

Troubleshooting:

Sometimes the breakers on the generator unit either trip, or get shut off. If the generator stops suddenly while running, or pushing the rocker switch during start up doesn't do anything, try the steps below:

1. Open the generator compartment door. It's a large panel in the floor just in front of the companionway steps.
2. There are 3 sets of switches, each labeled with the on and off positions, as well as position they should be set to.
3. The raw water intake strainer for the generator is in a small compartment under the cabin sole just aft of the generator compartment. Similar to the main engine, if this is full of eel grass the generator won't get enough cool water and will shut down.

Ice Maker

Yes, there is an ice maker. It's located under the galley sink. It only runs on 115V AC power, so requires the inverter to be running or shore power. If running the ice-maker with the inverter, be sure to run either the engine or the generator, otherwise the batteries will drain quickly. We find that running the ice maker while motoring for an hour or two can easily build up enough ice for the day.

Startup steps:

1. Turn on the *Water Press Pump* switch.
2. Turn on the *Ice Maker* switch on the 115V AC panel. You'll need either the inverter on, or shore power to use devices on this panel. If using the Inverter, make sure the Abso Inverter Charger panel, just to the left of the DC breaker panel, is turned on.

3. There is a green power button on the ice maker itself. The button will illuminate green if on.
4. It takes about 20-30 minutes to get the first batch of ice. The machine needs to run 60-90 minutes to produce a good quantity of ice.

Keep in mind that while the unit is running, the ice will stay frozen. However, if you turn off the unit the ice will melt. We recommend running the ice maker for about 90 minutes, then turning it off and transferring the ice to a bucket, or bag, in the refrigerator. Ice will even keep for a day or two in the fridge.

Climate Control

Highlights:

- Two Webasto forced air heaters (one for each side of the boat), set thermostat between the 10 and 11 o'clock position
- Not efficient to run all night, noise wakes light sleepers and draws power
- Secondary Reverse Cycle/Air-Conditioning (REQUIRES GENERATOR). The heat side of this system isn't as effective as the diesel heaters, and air-conditioning is typically not needed in our waters.

The Webasto thermostatically controlled forced air heating system draws from the main diesel fuel tank. In our waters, we use the heater on cool evenings or to take the chill off in the morning. The starboard heating system is controlled by the Webasto thermostat at the Nav Station. The port-side heating system is controlled by a thermostat in the galley. Make sure the switch is set to the *flame* position, and the dial is typically in the 10-11 o'clock position. These heaters typically take about 10-15 minutes to get up to temperature. Be sure to check that the heating vents (circular ones located near the floor, the larger rectangular ones higher up are for the Reverse Cycle) aren't blocked.

We normally run the heat for about an hour or two at night, and turn off right before going to sleep.

Reverse Cycle/Air-Conditioning

This system *only* works on Generator power, or **50amp** shore power. 50amp shore power requires **TWO** shore power cables to be plugged into the boat, and 50amps total delivered from the shore power plug(s).

Air conditioning is very rarely needed in the San Juan's, and the dual diesel heaters are generally much more effective at heating the boat, especially on colder nights, than the reverse cycle heat.



Startup Steps:

1. Start the generator or connect to **50amp** shore power.
2. Make sure the transfer switch on the 115V AC panel is flipped to Generator.
3. On the 115V AC panel directly behind the nav station, set the selector dial to either Shore Power (if plugged into 50amp shore power with both shore power cables), or Generator if the generator is running.
4. Flip the two *Air Conditioned* breakers to on.
5. There are a total of 5 climate control panels in the boat: 1.) one at the nav table; 2.) two on the port side of the salon; 3.) one in the rear of the starboard, aft cabin; 4.) one on the port side of the forward cabin. Each of these controls a specific vent near that location.
6. For each zone you wish to control, set the temperature in Celsius (between 20 and 22 is generally comfortable), then select the fan speed and finally select either Heat or Cool. Leaving the Heat/Cool rocker switch in the middle position will disable that zone.
7. The vents themselves (which are separate from the round vents used by the diesel heating system) can also be opened and closed. Make sure not to close all the vents on zones that are turned on.

Propane

We have 2 aluminum propane tanks in a dedicated propane locker on the transom (below the grill). Each tank normally lasts 4 weeks. The San Juan Sailing staff weighs these tanks weekly to assure that you don't run out. If one tank empties, there is a spare for your convenience.

Troubleshooting: If the stove won't start, check:

1. The appropriate propane valve is full open. Only one tank should be open at a time.
2. Solenoid switch is on: USA LP GAS CONTROL breaker located on the bottom left of the DC breaker panel at the Nav Station.

3. Stove knob is first pushed in, then left to the “ignite” position and after flame, is held until the thermocouple heats.

Caution: propane is heavier than air. If leak is detected, extinguish all flames and ventilate the bilges.

Refrigeration

Highlights

- The thermostats are located in the units; they are white dials running from 1-7 with 7 being the coolest setting.
- Ideal thermostat setting for refrigerator is about 40 degrees.
- Top-loading refrigerator has a switch at the top of unit that can be set to Freezer or Refrigerator. **Please leave this set to Refrigerator**, otherwise the unit will likely shutdown unexpectedly.
- There is sufficient battery power to operate refrigeration equipment all night – but please ensure that you’re starting with sufficient battery power before shutting down for the night (i.e. battery voltage should be 12.4 or greater before leaving the refrigerator on overnight).
- If you get excessive ice on your cooler plate do not chip away at the ice. If something is frozen to the cooler plate, do not force it away. Use warm water if you need to melt the ice.

Sails and Rigging

Highlights

- Full-battened, in-boom roller furling main
- 150% furling genoa (headsail), 130% furling jib (staysail)
- NOT a cutter! While she may look like a cutter, Rhumb Runner is actually a solent rig. With one specific exception noted below, do NOT deploy both headsails at the same time. Use either the genoa or the jib. We generally only use the 130% jib, unless the wind is very light.
- All lines led aft
- She sails best when kept under 20 degrees of heel.

Mainsail: LeisureFurl system

To Hoist:

The main halyard is normally stowed near the mast on deck. Before attaching halyard, make sure you unzip the LeisureFurl cover via the small ties on either side of the boom, closest to the mast. Then, release the halyard for a bit of slack as you feed the mainsail luff into the LeisureFurl system track located on the mast.



Cleat for the sail cover. There is a line, and cleat, on each side of the boom.

The mainsail should be raised about a foot up the mast before full hoist to ensure the luff of the sail is appropriately being fed into the LeisureFurl track on the mast.

1. Ensure the boom is at the proper angle (87 degrees) to the mast. This can be done by adjusting the boom vang, main sheet and topping lift lines such that the black marks are just past the rope clutch. These lines have been marked for the exact tension to produce the appropriate boom angle. Without the appropriate boom angle, you run a high risk of jamming the mainsail.
2. Completely open the sail cover on the LeisureFurl boom (see photo above). To open the sail cover, uncleat the sail cover lines on *both* sides of the boom, and pull the *bottom* sail cover lines on *both* sides of the boom to retract the sail cover. It may help to climb part of the way up the mast pulpit to visualize the top of the boom to see how the sail cover retracts. Failure to completely retract the sail cover will result in tearing the cover when the sail is raised (not fun, or cheap to replace).
3. After attaching the halyard and feeding the first foot or two of the mainsail into the LeisureFurl track, crew should wrap the main halyard line (labeled on cabintop) on winch at cabintop, release the main halyard clutch.
4. Crew should release the main furling line clutch (labeled on cabintop) and keep light tension on line via a half wrap around winch on cabintop.
5. Crew uses "low" speed on electric winch to raise halyard while keeping light tension on furling line. The helmsperson points directly into wind.
6. Helmsperson will likely be the one best suited to see when the main is fully raised (you shouldn't see any wrinkles in the luff of the sail).

7. When raised, close both the Main Halyard and Main Furler clutches.
8. You can flatten the sail shape by tightening, or loosening, the main furler line while the main halyard is locked. This will slightly furl/unfurl the main which will affect sail shape.

To reef, simply reverse the above – keep tension on the main halyard while winching in the furling line until your desired sail area is reached.

Note: when reefing the main, make sure the sail is reefed on a batten (i.e. a batten should be just inside the boom, at the foot of the sail). This will produce better shape when reefed, and help to make sure the sail doesn't creep out of the furler

Furling the Main

It's very simple, really, if done right. But do it wrong—as frankly many charter guests have—and you have BIG trouble.

Always keep tension on the main halyard so you get a nice tight wrap inside the boom, not a fat sausage with wrinkles--jams are sure to result.

Here's how to do it:

1. Just as you did when getting underway, you reverse the protocol. Ensure the boom vang, main sheet and topping lift lines such that the black marks are just past the rope clutch. Ensure the furling line is wrapped on a cabintop winch, and your main halyard is wrapped at least once (if not twice) around a cabintop winch to keep tension while furling it in.
2. Ease the tensioning halyard as you winch in with the furling line, and crank the sail in. Watch as you winch, checking the sail as it enters the boom, nice and tight. The main should never touch the mast when rolled into the LeisureFurl appropriately.
3. If done sailing for the day, remove the main halyard and close the sail cover completely. This will prevent UV damage on the sail. Closing the sail cover is a reverse of the opening process, but pull on the *top* sail cover lines on *both* sides of the boom instead of the bottom lines to close the cover. Be sure to cleat the sail cover lines when finished.
4. The heavy LeisureFurl boom tends to creak when it sways at night. While it's tempting to crank down on the mainsheet at night to prevent this, it usually makes the sound worse (and creates stress on the rig). We've found that hand tightening the mainsheet (so the boom has a small amount of swing) and then tying a preventer line from the end of the boom to a mid-ship cleat does the best job of silencing the boom at night.

We have trailing tell-tales on the main leech to assist mainsail trim. If they don't trail straight aft when sailing upwind, most likely you need to back off on the mainsail Traveler.

Genoa & Jib:

The genoa is a big sail and will help you get up and go! Note that the genoa is furled on the outer furler (furthest forward, closest to the anchor), while the jib is furled on the inner furler (closest to the mast). Keep in mind this is a Solent rig, not a Cutter. Unless using both headsails in a wing-on-wing setup for going down wind, you should NEVER deploy both sails at once. Unlike a cutter, both headsails run to the top of the mast and are spaced closely together on deck. This creates an extremely narrow slot between them, such that they can't be deployed together (unless wing-on-wing).

Note: Using the Genoa means that you must FURL IN prior to tacking or jibing, otherwise it will immediately hang up on the staysail.

Recommendation: this boat sails very well under main and jib (inner furler) only. For ease of tacking and jibing, we tend to use the jib and main only, with the genoa only out in very light winds or when headed downwind in a wing-on-wing style setup.

Showers and Sump Pumps

Highlights

- Separate shower stall in forward head
- Showers in both aft heads
- Transom shower, with hot and cold water
- Shower sump pump circuit breakers at nav station and switches in showers.

Each head contains a shower. The forward head has a dedicated shower area. Each head has a shower sump pump switch that you will need to hold down until the water drains. Each sump pump is on a dedicated breaker on the DC panel at the Nav Station. These breakers need to be turned on in order to use the shower sump pump. The two aft showers use the extendable sink faucet, which can be mounted on the wall.

Note: All three showers require the sump pumps to pump water out of the shower drain. They will not drain on their own like a normal shower.

Stove and Oven

Highlights

- 4 burners, depress knob, turn left, use hand sparker
- stove off, then solenoid off
- microwave for brief use

The four-burner gimbaled propane stove must have the propane solenoid switch on to operate (on the bottom-left side of the panel at the nav station). We suggest that whenever you turn off

the stove burner, you shut off the propane solenoid, which, for safety, shuts off the propane flow in the cockpit.

To light a stove burner, depress the knob, turn to the left and light with the in-built sparker. Note you don't need a flame...just the spark. Hold for a few seconds to heat the safety "thermocouple", then release. Turn the knob to the left, counterclockwise, to go from "high" to "simmer". For the oven, higher numbers are hotter.

To light the oven, set the knob to the desired temperature and keep depressed. Open the oven door. Ignite the burner with the same in-built sparker that you would use for the stove. Keep the knob button depressed for about 30 seconds before slowly releasing, watching the pilot to make sure it remains lit.

The microwave oven is stowed in the cabinet between the port-side settees in the salon. The inverter must be on, and the "AC outlets" circuit breaker on. You are welcome to use the microwave, but note that excessive use sucks down the batteries. We find it is best for warm-ups and short term uses, but not for extended cooking like bringing a soup supper from cold to hot.

Water

Highlights

- Two water tanks (76 gallons forward, 88 gallons aft)
- Deck fills are both at midships, on the starboard side. Outboard deck fill is for the aft tank, while the inboard deck fill is for the forward.

One water tank is under the forward starboard stateroom bunk, the other under the port bunk. Water gauge is located behind panel above top-loading refrigerator in galley (note: gauge only reads when water pump is turned "on").

The valves are at the forward end of the saloon, underneath the floor panel near the port side settee.



Photo above shows forward tank open, with aft tank closed (and not in use).

Before starting our cruise, we check that one valve is closed, the other open, so we can monitor use and forecast when we need to top off at fuel docks or marinas.

Note that water tanks have long necks, which may lead you to believe the tank is full before it is actually full. When filling tank, pause if you think it's full, and slowly fill the rest of the way (you may need to look at the water gauge to determine filling progress).

Hot water is produced by two methods:

- Engine: It takes about an hour under solid load to heat the extra large 12 gallon hot water tank. (Running the engine at idle won't heat the water.)
- Shorepower/generator: If hooked up, turn on the "Water Heater" circuit breaker on the 110v panel above and to the right of the nav station. If using the generator, make sure the inverter (blue Abso panel to the left of the DC breaker panel) is turned on.