

WELCOME ABOARD *Just Breeze*

Dear Guests:

Just Breeze is a 2021 Jeanneau Sun Odyssey 440 perfect for cruising the PNW. She is modern, luxurious, sporty, and spacious -- easy to sail, fast, and very maneuverable with a light helm. We are excited for the years of fun and adventure ahead in *Just Breeze* and hope you enjoy her sleek simplicity too!

We want to make sure our guests have the best experience, so we welcome any feedback, tips, etc. to improve the boat or these notes. Call or text Matt Patterson: (425) 894-1377 or email: SVJustBreeze@gmail.com

We look forward to hearing all about your adventures aboard *Just Breeze*!

Her features include:

- 3 cabin / 2 head layout sleeps 6 in the queen-sized cabins and 2 more in the convertible salon.
- Smartly appointed forward stateroom with double doors opening to a centerline queen berth; ensuite head and shower; ample closet and underbed storage.
- Two comfortable aft cabins include centerline queen-sized beds sharing a head/shower to starboard, which is also accessible directly from the starboard cabin.
- 600Ah of Lithium house batteries and high output alternator for fast engine charge.
- Huge space, headroom, visibility, and light below in the raised deck salon.
- Handles easily with in in-mast main furling and roller furling genoa.
- All lines lead aft to within easy reach of winches found beside the dual helms in the cockpit.
- Bow-thruster to make docking easy; an electric windlass to haul the anchor chain.
- Dual helm chart plotters integrated with all navigation electronics including AIS.
- Spacious cockpit with ample seating for all aboard around dropleaf table on center console.
- Outfitted with everything the charter guest needs for a relaxing, fun-filled vacation with family and friends:
 - Galley equipped with everything needed from quick snacks (microwave) to gourmet cooking (two burner stove, oven, fridge, and freezer).
 - Cockpit spray Dodger, Connector and Bimini will keep you dry on wet or chilly days.
 - Bose sound system with Sonic-hub (multi-iPod, USB) docking station, AM/FM radio, cockpit speakers, and audio controls displayed on charter plotter.

Just two rules.... breathe deep and have fun! Oh, and please, no pets and no smoking. We aim to keep her allergy friendly for all future guests.

Check out Just Breeze on Facebook <https://www.facebook.com/SVJustBreeze> and [Instagram @SVJustBreeze](https://www.instagram.com/SVJustBreeze) to share your photos and fun with other fans!

Enjoy this YouTube Playlist for Sun Odyssey 440 videos: <https://tinyurl.com/JEANNEAU440>

Happy sailing! *Matt Patterson*

NOTES FROM GUESTS FOR NEXT REVISION

We'd appreciate your receive feedback, thoughts, corrections, and questions here to improve the guide.

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1. VESSEL SPECIFICATIONS

<i>Model</i>	Sun Odyssey 440	<i>Year</i>	2021
<i>Overall Length</i>	43' 11" / 13.39 m	<i>Hull Length</i>	41' 5" / 16.64 m
<i>Waterline Length</i>	39' 4" / 12.0 m	<i>Draft</i>	7' 2" / 2.20 m
<i>Beam</i>	14' / 4.29 m	<i>Mast height above WL</i>	60' 6" / 18.46 m
<i>Displacement</i>	18,874 lbs. (dry)	<i>Sail area (main + genoa) ft²</i>	379 + 489 = 868 ft²
<i>Engine</i>	Yanmar 4JH57CR	<i>Number of cabins</i>	3
<i>Cruising Speed (motor)</i>	7 KN @ 2300 rpm	<i>Number of heads</i>	2
<i>Fuel Tank</i>	53 gal / 200 L	<i>Permanent Berths:</i>	6 in 2:2:2 cabins
<i>Fuel consumption</i>	1.4GPH @2500 rpm	<i>Add. Convertible Berths:</i>	2
<i>Fresh Water Tankage</i>	140 gal / 530 L	<i>Berth Mattress sizes (all)</i>	Queen
<i>Hot Water</i>	11 gal / 40 L	<i>Headroom</i>	6' 5"
<i>Holding tanks</i>	13 gal fwd, 13 gal aft	<i>AC Inverter</i>	3KW
<i>Fridge Capacity</i>	34 gal / 130 L	<i>Hull ID#</i>	IRISU274K021
<i>Freezer Capacity</i>	26 gal / 100 L	<i>MMSI No. (AIS Identification)</i>	368194210
<i>Domestic Battery Capacity</i>	600Ah Lithium	<i>USCG</i>	1313680
<i>FRN</i>	0030230262	<i>FCC Call Sign</i>	WDM3105

A fully built-out cruising sailboat is a very complex artifact. Although there are elements of commonality between all sailboats, a myriad of specific choices go into the construction and equipment of any particular boat. Whether you're an experienced sailor or newer to the game, you'll benefit from taking some time to read these notes. Once underway the chances of a calm moment for studying up on features making your trip more fun will be scant.

Thanks for reading this!

Two symbols appear throughout this guide:



Indicates a safety-related hint or caution.



Describes a helpful hint or boat quirk.

2. EMERGENCY/SAFETY EQUIPMENT (SEE RED ITEMS IN INVENTORY)

Fire – There are three ABC rated fire extinguishers onboard. They are located:

- (a) In the cupboard by your right foot if you are standing at the stove
- (b) starboard cabin locker, inside door on aft wall
- (c) port cabin locker, inside door on aft wall

All are ABC fire extinguishers. If you have a fire at the stove turn off the gas solenoid switch at the electrical panel.

Hitting a Log or Running Aground – In case of a log hit or running aground, immediately check for leaks in the bilge and then check for cracks in the fore and aft sections of the bilge where the keel attaches to the hull. Check all keel bolts. Once you are sure no water is entering the hull contact **San Juan Sailing at 800-677-7245** and proceed to the nearest harbor and have a professional diver check the hull, keel, prop, and rudder before proceeding.

Leaks – Make sure the bilge pumps are running. Then determine the source of the water, check the prop shaft first and then the through-hulls. You can get to the shaft seal under the port-side bunk, just aft of the motor. If you see water flowing at the back of the engine, the seal is broken. There is a diagram showing the location of the through hulls in the notebook. Get the crew on deck and into life jackets. There are wood plugs wired to each of the through hulls.

There are two bilge pumps. The manual bilge pump is located on the port side of the cockpit, just behind the steering wheel. The manual bilge pump handle is in under the seat lid in the port aft cockpit (propane) locker. The electric bilge pump has an automatic float switches but the switch on the electrical panel can be used to power the main pump manually (this breaker is normally off). The float switches and pump intakes are located under the salon sole about 2 feet aft of the mast compression post.

Steering Failure – If the steering system fails there is an emergency tiller located inside the port cockpit swim-step locker at the stern. It fits on rudder post which is accessed through the one of two caps in the helm floor. The caps can be removed with a winch handle. You will want to reduce sail or power when using this tiller since the rudder is large and the tiller is small.

Secondary Anchor – Located in the starboard aft cockpit locker, under the sole by the starboard helm, is a complete secondary anchor setup with 60' of chain and 140' of 3 strand nylon rode attached to a 21lb Fortress Anchor. It is necessary to lower the swim platform to access it.

Emergency Equipment – Flares, air, and manual horns, etc. are in the portside cockpit locker.

Crew Overboard – Throw a Type IV PFD or cockpit cushion to the person in the water first. Second, hit the MOB button on the chart plotter so you will know where they are. Then use one of the procedures discussed in the skipper's meeting to get back to the person. We keep the Life-Sling mounted on the stern rail, port side, always.

Tools – There is a well-stocked duffel of tools located under the navigation station seat cushion.

3. NUANCES OF JUST BREEZE

Being a recently commissioned, brand new boat, Just Breeze still has some “teething problems” in addition to nuances of her design and or build. Like most boats. We hope this helps you get to know her and, we appreciate feedback from our guests to help improve the experience for the next person.

Twin Rudders - Twin rudder boats behave significantly differently from single-rudder boats when maneuvering under engine. It can take some practice to get used to it. The main reason for the difference is that the rudders are not in-line behind the prop, so revving the engine when the boat is stopped does not establish flow on the rudders until the boat starts moving.

The effect is a "lag" between revving the engine and feeling the effect of the wash on the rudders. This lag can be disconcerting at times (truly nothing happens to the steering for a few seconds as you rev the engine). In practice, this means you should not stop during the approach because without motion you'll lose steering control, and it will take more time to gain it back than in a single-rudder boat. To correct for this, you need to approach a little “livelier” than on a single-rudder boat, get fully aligned while in motion, enter the slip, and only at the last moment hard reverse to stop the boat.

Bow Thruster - The Bow Thruster is there to help in low-speed maneuvering situations. The engine must be running before the bow thruster can be started/engaged.

Press both “ON buttons” together to enable the bow thruster. The Thruster ready light will go solid green to indicate it's deployed/lowered.



The thruster will timeout and power-down in roughly 5 minutes if unused, this can be an issue when coming into dock

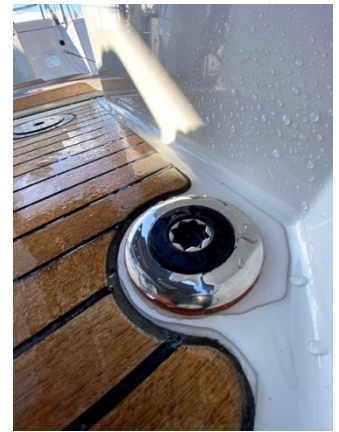
Turning off the engine before the thruster has been powered OFF will result in staying in the lowered/deployed position. It's best to power OFF the thruster before the engine, but if this happens, start the engine again and it will reset to closed.



FIGURE 1 - ENGAGING BOW THRUSTER

Deck Fuel Fill Cap - The Fuel Fill Cap is located on the port helm cockpit sole, near the scupper, which is a low point designed to drain water from the deck and the cockpit. As such, standing water might be present when opening the cap and it's not a good idea to allow water into the diesel fuel. It's therefore important to both:

- Sponge-dry the area prior to opening. A FUELING USE sponge is in the port cockpit locker, for this purpose.
- Ensure the cap is put back on nice and snug (please inspect the seal at this time for any visible damage which might prevent a water-tight seal)



Battery Monitor - The house (domestic) battery system, is a Victron Energy, Lithium Iron Phosphate (LiFePO4) system, which provides a greater usable capacity, faster charging, and longer life. There is a dedicated battery monitor and an Inverter / Charger control panel at the main panel.



FIGURE 2 - SWITCH LEFT (NORMAL) / RIGHT (INVERTER)

The factory supplied, touch screen no longer monitors the batteries and is **only a fuel and water tank level monitor** as its battery monitoring is disabled, and instead you use the Victron Energy display.

We have endeavoured to make operating the batteries, the charger and inverter as simple as possible. See Page 12 for more details on this system.

Dual rudders + Kelp/Weed - Seaweed will get stuck on the shaft in the gap between rudder and hull. Not easy to remove either.

We will **first try reversing to free the weed** and if that fails, lower the swim platform to clear larger bits by hand. Boat hook can help a bit but didn't get some of it. Clearing by hand while moving is an interesting experience. LIFEJACKETS ON PLEASE ☺

4. ANCHORS AND WINDLASS

Just Breeze is equipped with two anchors, one forward (44lb Delta with 300 feet of 5/16" Hight Test chain) and a Fortress in the starboard stern (life raft) locker along with 50' of chain and 150' of warp.

The primary **chain is marked every 25 feet and there are two marks in a row at 100 and 200 ft.**

There is a **chain counter** at the starboard helm which also provides control of the windlass. We avoid bringing the anchor in from the helm position, since the chain will pile up and the windlass will jam. Lowering the anchor out using the helm controller can be done to track chain-length, ideally with someone on the bow to monitor.

The scope normally used in the islands is 4 to 1, not 7 to 1 (unless conditions call for it, i.e., sustained winds over 25 knots). Most of the anchorages are well protected and popular, so you will likely have someone anchored nearby. After you have paid out the suitable amount of chain, 1-2 minutes of IDLE reverse sets the anchor

+ Here is an easy formula for how much chain you need out; add the water depth on sounder, plus any tide increase expected during the night, plus 5' (to account for the distance from sounder to roller on bow) and take that total and multiply by 4
(typical example would be 25' of water + 6' of tide increase + 5' = 36' x 4 = 144').

The electric anchor windlass receives power from the house battery.

The circuit breaker for the windlass is located behind the companionway steps in the port quarter berth.

Please note the windlass will run without the engine running, but as that can drain the start battery quickly, we always have the engine running when using the windlass.

The remote controller for the windlass is secured inside the anchor locker.

Be sure to take the tension off the windlass by attaching the snubber to the chain and a cleat (not the windlass), and then running out more chain until the chain on the drum is slack.



LOWERING THE ANCHOR:

- a. Turn on the circuit breaker for the windlass (port aft berth).
- b. Reset chain counter at helm (if desired).
- c. Unshackle the anchor retention line holding the anchor in place (this doubles as the snubber).
- d. Lower the anchor until the needed chain is paid out.
- e. Secure the chain with the snubber and run out enough chain to take the load off the windlass.



DO NOT LEAVE THE LOAD ON THE WINDLASS DRUM.

- f. Set the anchor by reversing at ~1200 RPM for 1-2 minutes, **DO NOT go above 1500 RPM.**
- g. Turn off the circuit breaker and, if appropriate, turn on the anchor light.

RAISING THE ANCHOR:

- a. Start the engine.
- b. Turn on the circuit breaker for the windlass.
- c. Take in enough chain to retrieve the snubber.
- d. Use a careful combination of engine power with the windlass to retrieve the anchor.
If the anchor is really stuck in the mud, you will hear the windlass slow under the load. Immediately stop the windlass and drive the boat forward to free the anchor.
- e. With a bucket, wash the anchor and chain as it is retrieved to keep the boat and anchor locker clean.
- f. Incoming chain can pile up against in the chain locker. Reach in and push the pile of chain forward every 20-30 feet of chain. Also be aware the lines used to mark the chain length can catch in the outlet of the windlass and may cause a jam. Just run the windlass back out for a second to clear.
- g. **Once the anchor is out of the water, please bring onto the boat carefully.** Slowly pull the anchor up onto the rollers using the power of the windlass, making sure it doesn't swing into the bow.
- h. Secure the anchor by hooking the snubber onto the chain and securing the other end to the port cleat (the chain over the drum should not be the only thing keeping the anchor onboard).



SWITCH THE WINDLASS BREAKER "OFF" TO PREVENT DRAINING THE START BATTERY.



FIGURE 3 - ANCHOR "SNUBBER" READY



FIGURE 4 - ANCHOR "SNUBBER" DEPLOYED

SECONDARY ANCHOR STORAGE

Located in the aft of the boat, under the cockpit sole on the starboard side (aka the lift raft locker) is a complete secondary anchor setup with 50' of chain and 150' of 3 strand nylon rode attached to a 21lb Fortress Anchor.



STERN TIES:

There are times when adding a stern tie to shore will be needed, especially in Desolation Sound and north. Just Breeze has **500' of floating line on a spool** for this purpose. It is stored in the bow sail locker. The recovered line is usually very wet, so we leave the spool sitting on end in the walk-through for a couple hours to dry before we put it away.

5. DOCKING AND BOW THRUSTER

DOCKING FENDERS AND LINES



The exhaust vent for the heating system is located on the aft starboard stern quarter of the boat and gets very hot. It is easily identified as a stainless-steel exhaust port labeled Webasto. Please be aware this a common location for placement of a starboard stern fender when at the dock or rafted with another vessel. Please check to ensure the stern fenders are not contacting the exhaust port or they will melt and pose a fire risk. There is also a significant carbon monoxide risk to the boat occupants tied to the starboard side if using the Webasto system. We recommend the starboard side be tied on the outside of a raft arrangement to minimize this risk.

BOW THRUSTER

1. With Engine running, activate the controller at the helm by simultaneously pressing the (2) ON buttons. The panel shows a yellow light between the ON buttons to indicate that it's activated.
2. Use minimally, in short 5 second bursts. Continual use will overheat the thruster. It will shutdown after 5 minutes and need restarting from the panel.
3. Most of the vessel maneuvering should be done using the engine and rudders (recognizing that prop wash has little effect on this boat).
 - a. The thruster is meant to be used to get the bow moving in the desired direction when at very slow speeds, during your final approach into, or departing from the slip, or in emergency situations to keep from hitting another vessel or dock.
4. Keep the main engine running while using the thruster, to keep the battery in a good charge condition.
5. Power down the bow thruster before turning the engine off.



6. BARBECUE

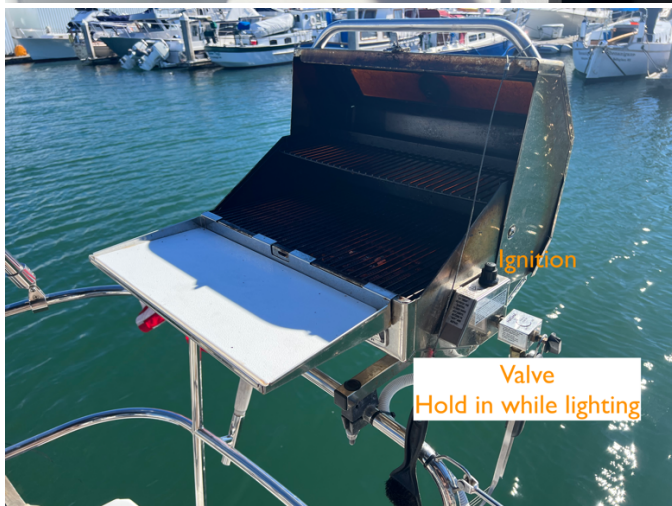
The stainless-steel propane barbecue is mounted on the stern pulpit. There is a line plumbed from the main propane tanks inside the propane locker to the BBQ. However, you will need to turn on the valve located inside the propane locker. Be sure the BBQ controller is off when opening this valve or the tank valve; having it on will cause the safety system in the main tank to engage and severely limit the flow to the BBQ. When done with the BBQ turn off this valve.



DO NOT RELY ON THE CONTROLLER AT THE BBQ AS THE ONLY SHUTOFF FOR THE PROPANE.

THE SOLENOID SWITCH IN THE GALLEY NEEDS TO BE ON TO RUN THE BBQ.

- The stainless-steel propane barbecue is mounted on the starboard stern pulpit. There is a line plumbed from the main propane tanks inside the port propane locker to the BBQ.
- There is a T-valve allowing both the galley stove and the BBQ to use the same propane tank. You will need to turn the valve to be in line with the BBQ line to use the BBQ.
- Be sure the BBQ controller is off when opening this valve or the tank valve; having it on will cause the safety system in the main tank to engage and severely limit the flow to the BBQ.



7. BATTERIES & CHARGER/INVERTER


Battery use management matters when it comes to cruising on boats. We’re accustomed to infinite electricity from our utility service at home but when on a boat we must pay attention to our electrical consumption more closely. If we don’t pay attention, various disappointments will ensue. Please bear with us while we possibly over-explain how to use the batteries.


There are 7 batteries onboard, one for starting the engine, three 200 Ah LiFePO4 Victron’s to power the cabin, and one to power the bow thruster. These three battery systems are separated from each other by a combiner.

- The **starter battery** is under the port aft mattress.
- The **house batteries** are under the starboard aft mattress.
- The **bow thruster battery** is in the sail locker in the bow

There is a 600 Ah Victron Lithium battery system for the domestic system which has a 75% (450 Ah) useful capacity.

Shore Power Connected & Charging Batteries










Shore Power Disconnected
Switch stays in “charger only”

The system is charged from shore power (when plugged in) or the engine, when it is running.

When not plugged into shore power, and engine off, the charger is idle, and the inverter is left off.

Battery Monitor – A Victron Energy BM-712 battery monitor is used to monitor the house and the starter batteries. To toggle through the various measurements, press the + or – buttons.

State of Charge (Remaining Capacity)	Battery Voltage (MAIN = HOUSE) (AUX = STARTER)	Hours Remaining 'time-to-go'	Current Draw (- = discharging, + = charging)	Consumed Ah
				

The Lithium house batteries are fully charged at **100% Capacity on the monitor**



Lithium batteries voltage will stay > 13V throughout their discharge (unlike Lead Acid/AGM).
Reading the State of Charge is the best way to monitor the battery.

The battery monitor also estimates how long the battery can support the present load: the 'time-to-go' readout. This is the actual time left until the battery is discharged to the discharge floor.

The fridge, freezer, and Webasto heating system (as well as anything using the inverter (microwave)) all have significant effect on the battery life. Ideally get the fridge and freezer down to temp on shore power or while motoring and turn them off while sailing or at anchor. We typically turn the heating system off at night.

ENGINE / ALTERNATOR CHARGING

Just Breeze has an upgraded additional alternator for faster charging of the house batteries when the engine is running. Depending on the battery State of Charge, the alternator can charge at a rate of 1.5KW (or ~ 100A). Which can be seen as a positive number on batter Monitor in "A" (Current Draw) display. This means if for example the battery is at 50% SoC (i.e., 300 Ah consumed), it will recharge in approximately 3 hours of run time.

CHARGER/INVERTER

The boat has a 3KW inverter providing 110V power from the house battery. Be careful as it is easy to draw the batteries down fast. We suggest leaving the inverter turned to "charger only" unless you need 110V power; the main risk is running the house batteries low without realizing it.



CHARGER CURRENT LIMIT

The current limit displayed on the charger/inverter panel is the number of Amps (at 110V AC) and it should not exceed the capacity of the shore power circuit, including the shore power cable in use.



We recommend 30A Max for the shore power charger but If you are regularly tripping the breaker on the shore power lower this on the dial.

BATTERY ALARMS

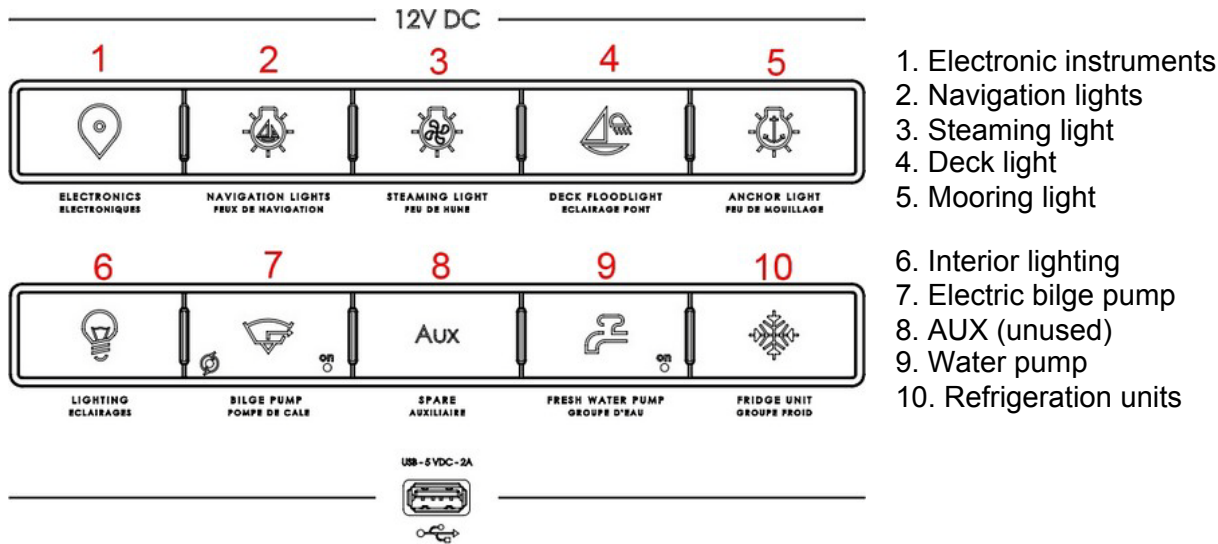
There is a Low State of Charge alarm enabled at 25%. This will sound on the round Battery Monitor display.

If this alarm sounds, turn off any unnecessary electrical devices and either start the engine or plug into shore power.



If running the engine only for charging purposes, it's advisable to push in the red button on the throttle to disengage the gear-select and bring the engine up to 1500rpm.

8. ELECTRICAL PANELS



The 10 silicone keys switch on the desired DC elements via relays.

CABIN OUTLETS AND LIGHTING

There are 2 USB outlets (DC power) in each stateroom and one at the main electrical panel.

There is only one round cigarette style DC lighter type outlet located in the aft end of the cockpit table.

There are AC outlets (shore power/inverter) in the galley by the chart table, in the saloon by the TV control box, in both heads and in each stateroom.

There is direct and indirect LED lighting in the saloon switches on the galley island just as you come down the companionway and on the ceiling in front of the compression post)

LED lighting is also in each of the staterooms and heads

switches just inside each stateroom and a small round button just below the sink in each head.

9. DECK FILLS/PUMP OUTS

Deck Fills are color coded with a color ring between the deck cap and the deck and accessed with the Cap key, which is in a cubby at the Nav Station.

If the cap is too tight and the plastic key is flexing too much, use a winch handle to carefully open the cap.

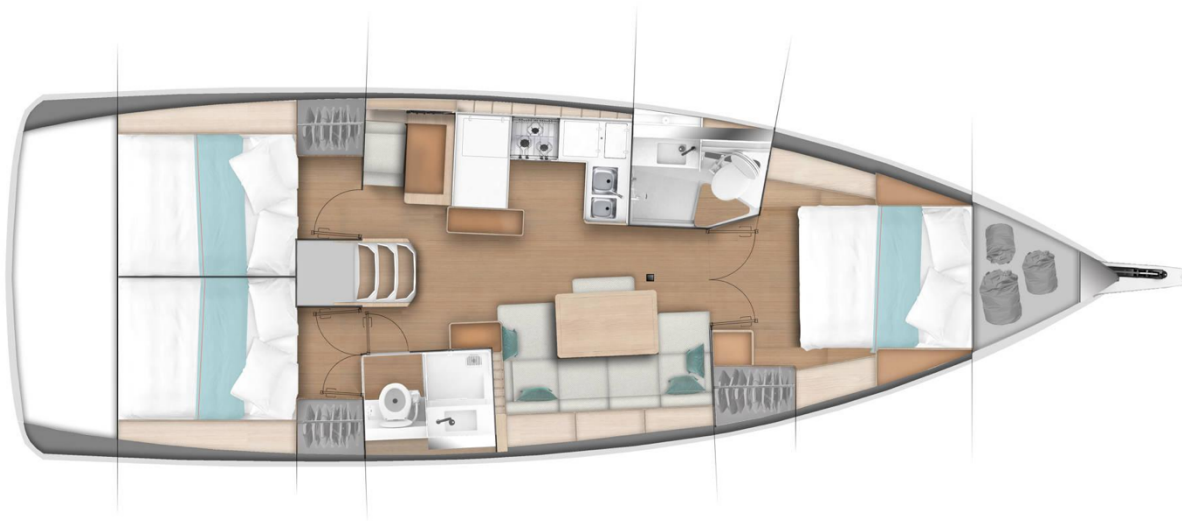
Red – Diesel Fuel (Port Side Helm Sole)

Blue – Fresh Water x 2 (Starboard Side Helm Sole, and Starboard side forward of mast.)

Black – Black Water Waste (sewage) x 2 (Starboard side amidship behind mast and port side amidship.)

10. BERTHS

Just Breeze sleeps six comfortably (plus 2 in salon, if squeezed); two in the private cabin forward, two in each of the quarter berths and two in the main salon. All three double berths are quite roomy, each a queen-sized bed. Each of the berths has a memory foam topper for extra comfort and a Hypervent condensation prevention mat under the mattress.



11. BILGE PUMPS

The electric bilge pump has a timed relay wired to the sensor which will continue running the pump for about 15 seconds after the bilge is pumped out. Also, this relay is wired straight to the battery so the breaker for the bilge pump is normally in the off position. Turning on the breaker will cause the pump to run continuously. This time delay was added to allow enough time for the pump to empty the line so water would not drain back into the bilge and reactivate the switch.

12. DINGHY AND OUTBOARD

The Dinghy is a 10' Ketchimack aluminum bottom dinghy with a 2.3 hp Honda outboard. The dinghy holds 4 adults and the outboard is easy to operate. The dinghy tows with the least drag if brought close to the boat – a couple feet off the stern. This guarantees that you will not accidentally wrap the painter around the propeller when you back up!

We appreciate your special care when beaching the dinghy. Beaches in the San Juan's are seldom gentle, sandy beaches; often they are rocky and covered by barnacles equipped with extra sharp rubber cutters.

The Honda outboard has a four-stroke engine, it uses straight gasoline. San Juan Sailing will be sure you have full gas cans which are normally in the starboard aft locker. This is the only locker where the gas fumes will not get into the boat. Also please do not cruise with the outboard on the dinghy as a large wake or gust of wind can overturn the dinghy.

The Honda is light, so it is easy to transfer from the stern rail mount to the dinghy transom (and vice versa) by hand.

Starting the Outboard

1. Push the fuel valve lever (starboard aft corner of the outboard) aft to open.
2. Pull out the choke switch (starboard forward corner of the outboard).
3. Open the air vent on the top of the fuel cap by turning counterclockwise.
4. Make sure the black U-shaped kill clip (with the red lanyard) is clipped into the red shut-off knob (port forward corner of the outboard).
5. Turn the handle throttle $\frac{1}{4}$ turn counterclockwise.
6. Pull the cord until it starts (you should not have to pull it more than 5 times).
7. There is no transmission--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.

Stopping the Outboard

1. Shut the outboard off 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.
2. To avoid prop damage, shut the outboard off and raise it out of the water before you reach the shore. Pull the outboard forward and out of the water until it clicks and stays in place.
3. To put the outboard shaft back in the water, release the stainless-steel lever on the starboard side of the shaft.
4. Put the outboard back on the outboard mount on the stern rail and tighten both braces.
5. Push the fuel valve lever forward to close and close the air vent on top of the fuel cap.

Dinghy - Outboard Troubleshooting

If the engine will not start, review start steps 1-6 above to make sure you have done all 6 steps.

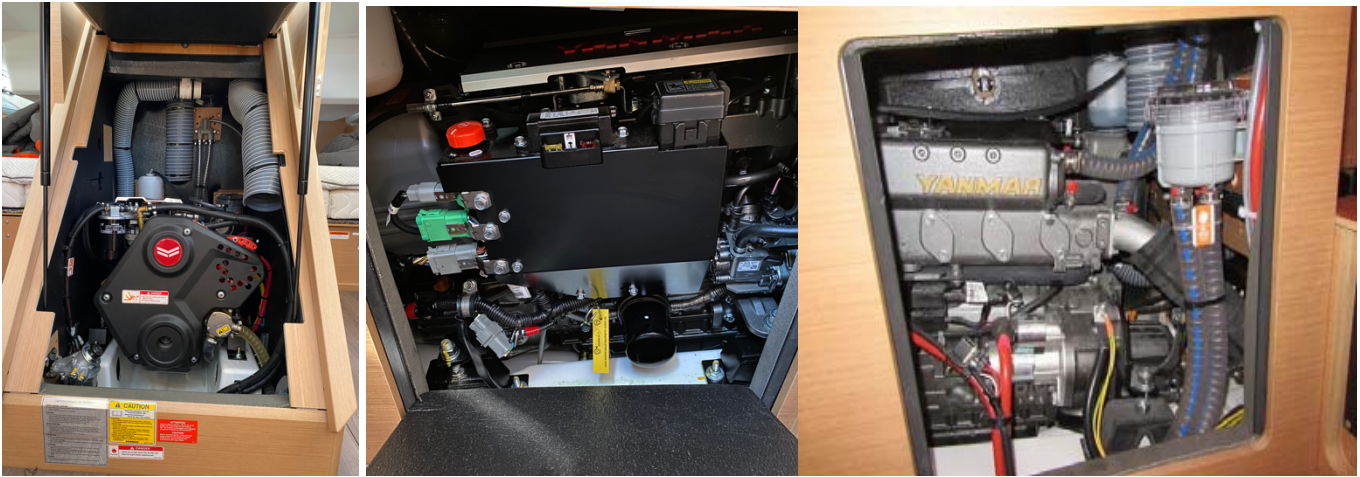


If the outboard is running and you are heading toward shore, and the engine suddenly quits, it is usually that someone has forgotten to vent the fuel cap.

13. DODGER

As with all dodgers, please be gentle. If the glass becomes spotted with salt, please get a pot of fresh water from the galley sink and “flood” the salt crystals off the plastic. Our dodger has some very handy rails on the back and sides that make staying upright and onboard easier. The connector canvas between the dodger and bimini can be removed by unzipping it. If you do remove it please roll and stow it. This goes for the window covers too, which are typically left off during the charter season and stowed in a cockpit locker.

14. ENGINE AND OPERATING UNDER POWER



Cruising should be done at engine RPMs of 1900 to 2500 (the boat feels most comfortable to us at 2200 to 2300). The following table gives approximate cruising information:

RPM's	Boat Speed	Fuel Consumption	Hours	Range
2000	6.3 Knots	Approx. 1.0 gal/hr	40h	252 Naut. Mi.
2300	7.0 Knots	Approx. 1.5 gal/hr	27h	189 Naut. Mi.
2800	8.2 Knots	Approx. 2.0 gal/hr	20h	164 Naut. Mi.

The ranges listed assume a 25% reserve in the 53 gal fuel tank (so 40 gal usable). We find pushing the engine beyond 2800 RPM (or 8 knots) does little good as the boat reaches hull speed at about this point.

There is a blower in the engine compartment which is vented in the transom walkway above the swim shower. **This blower runs continuously when the engine power is on and the sound is a little loud.**

Starting:

- Visually check the engine, look for fluid or oil under the engine or eelgrass in the strainer. There should be no need to check the oil level unless you are out for more than a week (it is checked every turn-around by our maintenance pro). If you do want to check the oil level the dipstick is easily accessed via the hatch opposite the stove.
- Make sure the gearshift is in neutral (approx. vertical).
- Push the On/Off button (bottom left of panel). **It only takes a quick push – if you push it in and hold it too long it will turn on the then right back off again.**
The COOLING WATER FLOW alarm will sound and is rather loud. Use the MUTE button to silence while starting.
- Then, once panel has booted up (takes 3-4 sec.), push the Start/Stop button.
- After she starts, check for water flowing out the exhaust.
- There is no need to warm up the engine, getting out of the harbor will do this.



Engine Overheat – The first alarm to signal an overheat situation will likely be the exhaust temp alarm, the panel is in the port stateroom behind the stairs. If the buzzer sounds while the engine is running look to see which alarm is sounding, high temp or high water. Also look to see if there is cooling water exiting with the exhaust and shut the engine down if you can do so safely. Overheating is the most likely cause for the buzzer but the engine has its own alarms, for example it will also alarm if you run out of fuel. It is worth checking on the oil level, coolant level, fuel level and raw water strainer. If you see something obvious and can fix it great, if not please call us or San Juan Sailing.

Engine Shutdown – First make sure the engine is at idle and the gearshift in neutral. Then push the Start/Stop button for about 2 seconds. The alarm will sound. Once the RPM reaches 0, push the On/Off button. The alarm will stop. (You can also Mute the alarm with the red button)

15. FUSION STEREO/RADIO

Connecting your device via Bluetooth:

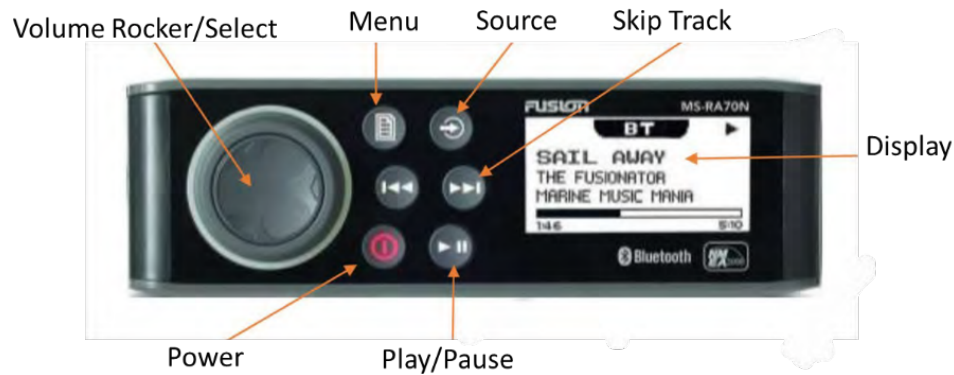
Push menu button and select **BT**.

Select **discoverable**.

Open Bluetooth settings on your device and scan for Bluetooth devices. The stereo should show up on you list of devices as “JUST BREEZE FUSION.”

An option should show up on your display asking to pair with the device and confirm pairing code, select “OK”. Once paired your song selection and device name should show up on the Fusion display.

Push volume rocker to adjust the volume in individual zones (Cabin and Cockpit)



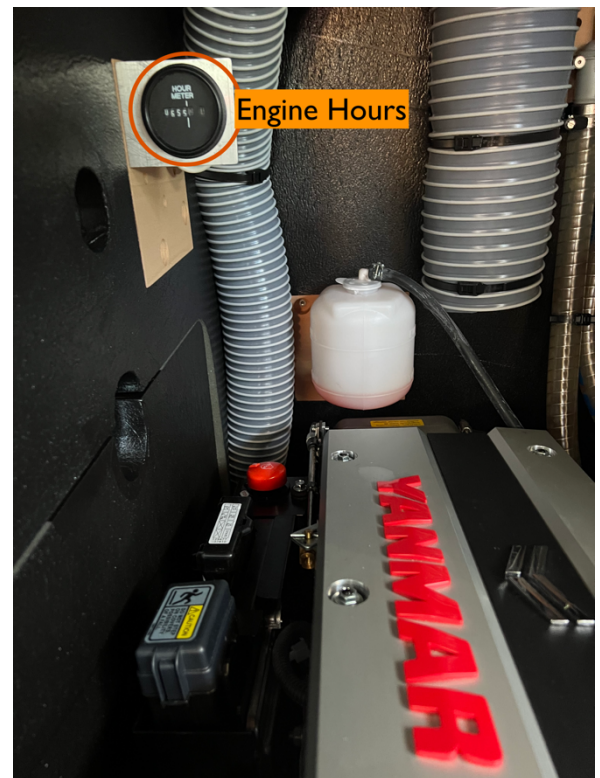
16. FUEL TANKS AND SYSTEM

The **tank supplying the engine diesel fuel holds 53-gallons.** It sits under the port quarter berth .

The fuel shut-off valve is located on top of the tank. The fuel gauge is located on the touch screen at the navigation station/electronics panel. **We don't yet know to trust this gauge; as it's too new yet to be fully tested. Instead, note the hours when you leave and fill the tank if have run 25-30 hours.** The engine hours can be viewed using the digital readout on the engine panel in the cockpit, or in the engine compartment

When filling the tank listen closely and stop as soon as you hear fuel coming up the fill pipe. It will foam out the vent if you go further. The Fuel Fill Cap is located on the port helm cockpit sole, near the scupper, which is a low point designed to drain water from the deck and the cockpit. As such, standing water might be present when opening the cap and it's not a good idea to allow water into the diesel fuel. It's therefore important to both:

- Sponge-dry the area prior to opening. A FUELING USE sponge is in the port cockpit locker, for this purpose.
- Ensure the cap is put back on nice and snug (please inspect the seal at this time for any visible damage which might prevent a water-tight seal)



17. GALLEY

For those of you who are interested in fine dining while on vacation, we have done our best to provision Just Breeze. with a well-equipped galley. We have place settings for eight onboard and most of the pots, pans and utensils needed for food preparation. There is a large assortment of spices condiments and supplies onboard. The following list is intended to give you a flavor of what we try to keep onboard.

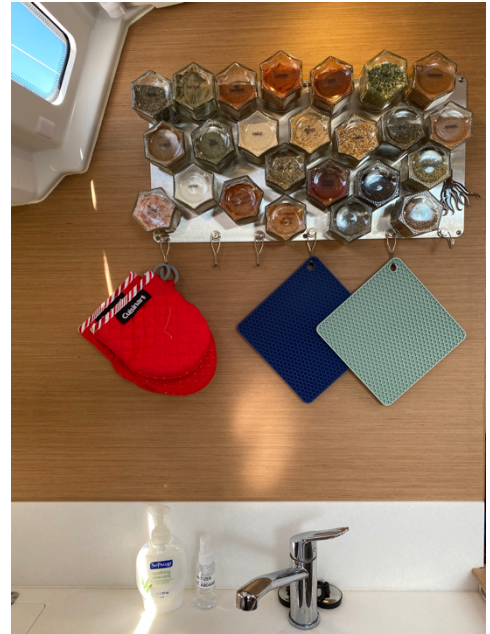
Please note that no refrigerated items are included.

- Spices – 24 assorted spices.
- Condiments – Cooking oil, olive oil, red wine vinegar, Worcestershire sauce, A-1 sauce, Tabasco sauce.
- Supplies – saran wrap, aluminum foil, baggies, containers, garbage bags (under sink)

All we ask is when you use the last of something that you replace it. There is also an assortment of cleaning supplies should you need them, some under the sink and more in the cabinet in the shower.

Microwave – We have a microwave aboard for convenience. It's located under the forward settee seat cushion and can sit on the counter by the nav station (plug is below the port speaker). If not plugged into shore power, you will need to be sure the inverter is on.

Storage – Just Breeze has quite a lot of storage for groceries. This video is excellent demonstration of how to pack a week's worth of supplies into a similar Jeanneau 440: <https://tinyurl.com/440Storage>



Plenty of hidden storage for food, bottles, etc.

REFRIGERATOR/FREEZER

Both fridges are switched on/off by the DC Panel switch shown in the figure to the right. Each has a separate thermostat to control temperature inside the fridge.



FIGURE 5 - SWITCH FOR FRIDGES

STOVE AND OVEN

The gimbaled propane stove has two burners and an oven. Propane is heavier than air and requires caution. For your safety, please follow these procedures:

- Make sure all stove controls are in the vertical "off" position. As with the BBQ, having the stove valves open when the solenoid is opened will cause the safety system to kick in. This will severely limit the flow to the stove. If this happens close all the valves, including the one on top of the propane tank. Open the propane tank valve.
- Turn on propane solenoid valve switch in galley by sink.
- Push the ignition button to light on the burner, then hold in the knob for about 3 seconds to allow the thermocouple to sense the flame.
- When you are finished with the stove turn the solenoid switch in the galley off.



To light the oven, push in and turn the "oven" control knob on the front left-side of the stove to either bake or broil. Hold it in while pressing the ignition button.

Please note that both propane valves are in the propane locker in the aft port side of the cockpit, which is vented and isolated from the rest of the boat. That way, any leaks will be vented away from the boat. San Juan Sailing's staff fills the propane tank every 3 weeks. One tank normally lasts 4-6 weeks.

18. HEADS AND HOLDING TANKS

Please do not put anything in the toilet that has not been eaten. Experienced sailors deposit toilet paper in a wastebasket, not down the toilet because paper tends to clog the system. Both heads have electric auto-flush toilets. Each head has its own holding tank, and they both hold 13 gallons. There are Y-valves located in each head under the sink.

If you are in Canada the tanks can be dumped overboard by opening the drain valves: In the aft head the tank drain valve is under the hanging locker in the starboard cabin and in the forward head, it is located behind the hatch under the sink.

Please note these are gravity drain tanks, there is no need for a macerator. They will normally drain in less than a minute (you will hear them finish with a 'woosh' if the engine is not running); pump out in harbor. If you want to pump out the tanks the forward head deck fittings is on the port side and aft head is on the port side.



If you have four people on board and have 'normal' usage, the tanks will need to be emptied every other day. If you have more onboard or heavy usage, please dump or pump every day.

There is no level indicator so being 'regular' with your emptying is important. The tanks are located behind the mirrors if they need to be accessed. We typically use the forward head as a pee only head and leave the drain valve open. We then use the aft head for #2 and always leave the valve Close tank valve (handle perpendicular to line) closed (even in Canada).

19. HEATER

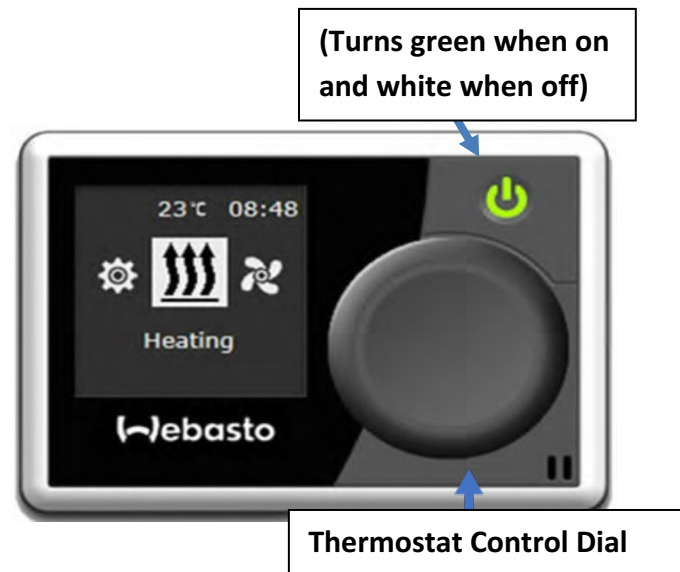
The Wabasto Furnace is diesel fueled (from the main fuel tank) and is mounted in the starboard aft floor locker. The **thermostat** is located behind the starboard saloon seating in aft end of the shelf.

Simply turn on the power switch on (button turns green) the thermostat and set the temperature you want. There is a 2-3-minute delay from when you turn it on to when you will hear the fan running. There is a rotating dial on the controller that is used to adjust the temperature. When you want to turn the heater off you simply press the power button (button will turn white).

The diesel is pumped from the main tank and the intake does not go all the way to the bottom of the tank.



If you are planning to use the heater, do not let the fuel tank go below 1/3 full, otherwise the heater will lose prime. Should this happen it takes about 6-7 start sequences to re-prime the system.



When the furnace is running you may notice a clicking noise, this is the electric fuel pump pulling from the main diesel tank. Also, we do not recommend running the furnace all night (although it is doable) as its draw on the batteries is sizable. It is also noisy, especially from outside the boat and in the port quarter berth. The heat is dry, comfortable, and on those occasional rainy days or cool evenings, makes a huge difference in cruising comfort!



The exhaust vent for the heating system is located on the aft starboard stern quarter of the boat and gets very hot. Please be aware this a common location for placement of a starboard stern fender when at the dock or rafted with another vessel. There is also a carbon monoxide risk to the boat occupants tied to the starboard side if using the Webasto system. We recommend the starboard side be tied on the outside of a raft arrangement to minimize this risk.

20. INSTRUMENTS

AUTOPILOT AND WIND DISPLAY

At the aft end of the cockpit table are two instruments, the wind/depth/speed gauges (left), and the autohelm (right).

By default the wind/depth/speed (through-water) will appear as seen in the figure here.

The autohelm is controlled with the **Auto** button to engage, and the Red **STBY** button to disengage.

CHART PLOTTER AND RADAR

You should have little need of the radar except for the highly unlikely event that you are suddenly enveloped by fog, which is rare in this area, but can happen. Fog in the islands usually forms in the wee hours of the morning and burns off by mid-day. If it's a little soupy after breakfast, we put on an extra pot of coffee until it lifts.

Please remember that SJS contracts do not permit night or restricted visibility sailing. However, for practice you can watch the radar screen and what is happening during a clear day to develop a familiarity with what it looks like.

The radar is activated from the chart plotter home screen.



If you use the radar, please make sure it is set to transmit off when you are done. Simply switching back to the chart plotter screen does not turn it off and it can draw a fair amount of power if you are using while sailing.

AIS - AUTOMATIC IDENTIFICATION SYSTEM.

This system will show most commercial vessels on chart plotter screen as triangles. The triangle points in the direction that vessel is moving and if you move the cursor over the triangle the system will give you addition information (such as name, size, speed, etc.) about the vessel.

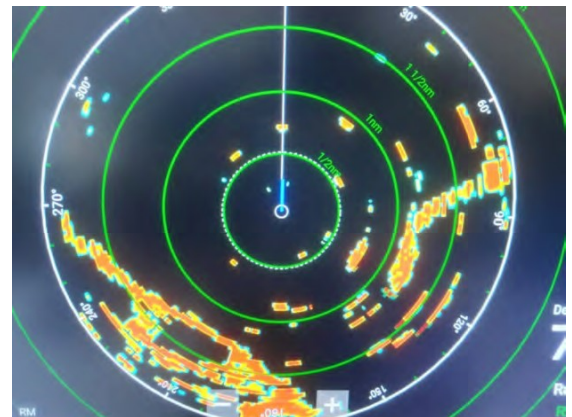


AIS transmits this information about Just Breeze to other vessels with A.I.S. whenever **Electronics are powered** on the DC Switch panel.

FIGURE 6 - SWITCH FOR ELECTRONICS (INSTRUMENTS)



FIGURE 7 - WIND/DEPTH/SPEED & AUTOHELM GAUGES



21. VHF RADIO

The main Raymarine radio is mounted at the nav station. Turn on the electronics to get power to the VHF

A wireless remote mic/speaker for use in the cockpit is at the starboard helm. The main VHF must be running for this remote to be operational and the two units are synced on the channel they are on.

In addition, there is a portable VHF handheld unit which lives, clipped to shelf of the nav station where it can be charged using it's included USB cable. This is floating device and therefore good for taking ashore when needing to keep in touch with the boat.

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 channels 68, 69, 72, 74 or 78. We listen to weather channels 1, 2, 3, 4 or 8 (whichever gives the best reception) 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).



22. SAILS AND RIGGING



It's tempting to save some effort and use the electric winch for furling and unfurling the main, but in doing so, there's an increased risk of damaging the system. **We request guests operate the winches manually when furling**, as it provides feedback on the loads being applied.

UNFURLING THE MAIN SAIL

Unlike a standard main, it is best to have wind in a furling main when deploying, like deploying a furling jib. The wind adds even pressure all the way up the mast and helps the sail deploy. This even works going down wind (in moderate winds, up to about 15 knots).

1. On the port cabin top, open the MAIN FURLING clutch controlling the yellow main furling line. Ensure the line can has one wrap on the winch for speed-control but can run free and clear. It will be wound around the screw gear in the base of the mast as the sail is unfurled.
2. Check the outhaul clutch is closed.
3. Pull on the "Outhaul" while easing the "Main Furling" line, always keeping an eye on the mainsail coming out of the slot in the mast and keeping tension on the "Main Furling" line.
4. When unfurling the main all the way, do not over-tension the outhaul so that the clew goes to the end of the boom. Don't open any clutch labeled halyard. Releasing the halyard will make it difficult to furl and unfurl the sail.

FURLING THE MAIN SAIL

1. Put the boat on a starboard tack, with the wind slightly forward of the beam. That way, the sail will feed in and around the furler; on a port tack the full height of the sail would be dragged over the sail groove in the mast, adding friction.
2. Prepare the Outhaul line to run fully and freely back through the clutch.
3. Ease the main sheet enough to reduce load in the main sail and cleat.
4. Open the "Outhaul" clutch and ease with a wrap on the winch.
5. Keep an eye on the mainsail clew as it moves towards along the boom to the mast.
6. Take the mainsail all the way into the mast until only the foot or so of UV protected clew is remaining.
7. Close the MAIN FURLING clutch, tension the Outhaul and main sheets, and close their clutches.



Too much, or too little, tension on the luff of the main (indicated by vertical creases in at the mast) can cause problems for furling. Small adjustments to the main halyard can help ensure the alignment of the roller foil and make for easier operation.

HEADSAIL

Our genoa is a 130 and takes a good sail shape at the full out position. Its size helps in lighter air, but during periods of heavier winds you may furl the headsail as desired. **Please keep moderate tension on the roller furling line when deploying the headsail to prevent a rat's nest on the drum. Similar tension on the sheets should be used when furling to prevent 'candy striping' of the furled sail.**

23. SHOWERS AND SUMP

Experienced cruisers know the sailor's shower: get wet, turn it off, soap up, rinse off. **CAUTION: THE ENGINE CAN HEAT THE WATER TO SCALDING TEMPERATURES!** Each shower has a sump pump with a switch located in the shower area. These pumps also have breakers on the main panel.

There is also a shower fixture back at the swim platform. This is useful for washing off shoes after returning from the beach. This fixture is located on the transom to port of the aft storage locker.

24. STERN PLATFORM

The Stern Platform is raised and lowered with buttons on the aft end of the cockpit table, below the wind and AP instruments.

There are two latches on either side of the stern platform that hold the platform up and must be slid to the open position in order to lower the platform.



25. WATER

Water pressure – The freshwater pump switch is located on the electrical panel. Please switch this off when motoring or sailing. You could burn out the water pump should one of the tanks run dry (and you would not hear the pump running over the sounds of motoring or sailing). There is a pressure accumulator so you will be able to get some water even with the pump turned off.

Water tanks – There are two water tanks, a 83 gal. tank located under the v-berth, a 57 gal. tank under the quarter (starboard side). Selection valves are under the forward settee seat. Only one valve should be open at a time, and we usually drain the forward one first, to improve the boat's weight balance.

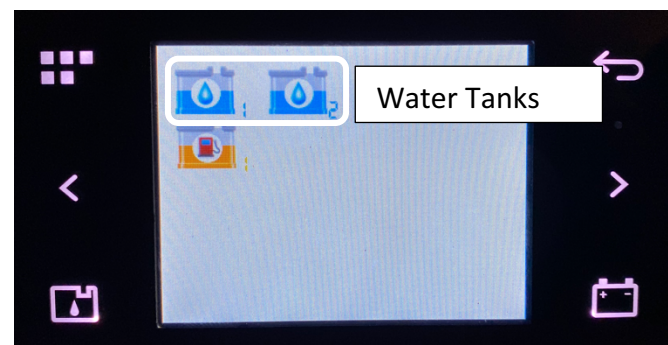
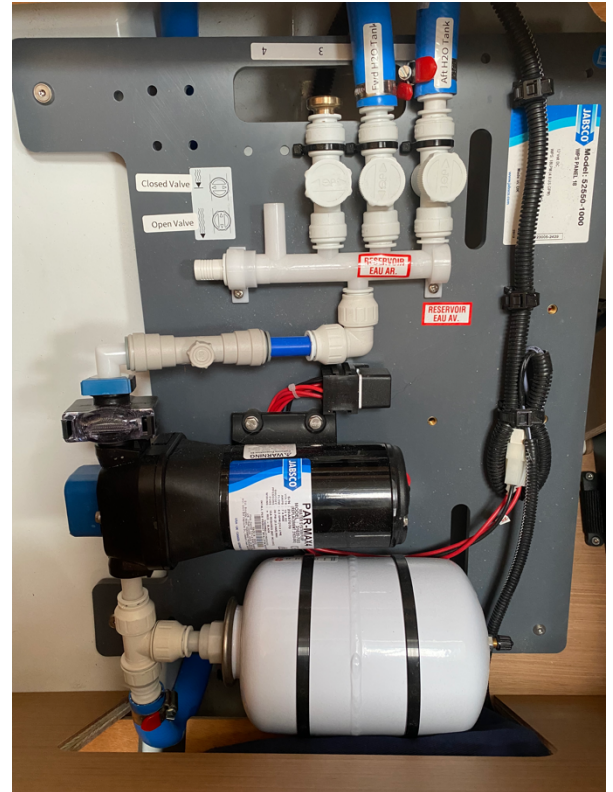
There is a digital readout on the main panel, it indicates the percent of water remaining per tank (at least in theory, it appears to read more like .6 liters). This meter should be reset to zero when you change from one tank to another or refill all the tanks at the dock. Here are the approximate counts

Tank # 1 - Bow Tank – 100% = 83 gal,

Tank # 2 - Starboard Aft Tank – 100% = 57 gal

The deck fitting for the bow water tank is on the port side forward of mid-ship. The fitting for the starboard tank is on the starboard side about mid-ship.

Water Heater – The water is heated automatically when the engine runs under load (it takes about 45 minutes), running it at idle in the morning doesn't work, sorry. **CAUTION:** THE ENGINE CAN HEAT THE WATER TO SCALDING TEMPERATURES! The hot water is stored in a 10-gallon tank located under the dinette seat just in front of the galley. It can also be heated electrically when shore power is available.



26. WASH DOWN HOSES

There is a salt (raw) water washdown pump and 2 hose attachments aboard this vessel. One in the cockpit between the swim platform and port helm seat, the other in the anchor locker in the bow for washing the chain as it's raised. The hose and sprayer is in the aft port lazarette in the black bucket.

To use the wash down hose you must first switch the pump on which is with the breaker switches for the winches in the port-side berth. Remember to turn it off when not in use to reduce pressure in the system.



FIGURE 9 - COCKPIT WASHDOWN HOSE



FIGURE 8 - ANCHOR WASH DOWN HOSE



FIGURE 10 - RAW WATER PUMP SWITCH LOCATION

27. WINCHES

Just Breeze has 4 winches, 3 electric, 1 manual.

The two large (electric) winches near the helms are for sheeting the main and genoa. The port cabin top has an electric winch for halyards only.



Furling should be handled by manual operation of the handle located in the pocket on the starboard side of the cockpit table. This is because furling gear can be overwhelmed by the power of the motorized winches which can result in damage to sails, lines, and furling systems.

The electric winches are supplied by 12V DC. A breaker protects the electrical circuit. An operation relay is fitted to the electrical circuit. A load controller is fitted to the electrical circuit: This system protects the winches against overload by temporarily interrupting the electrical supply.

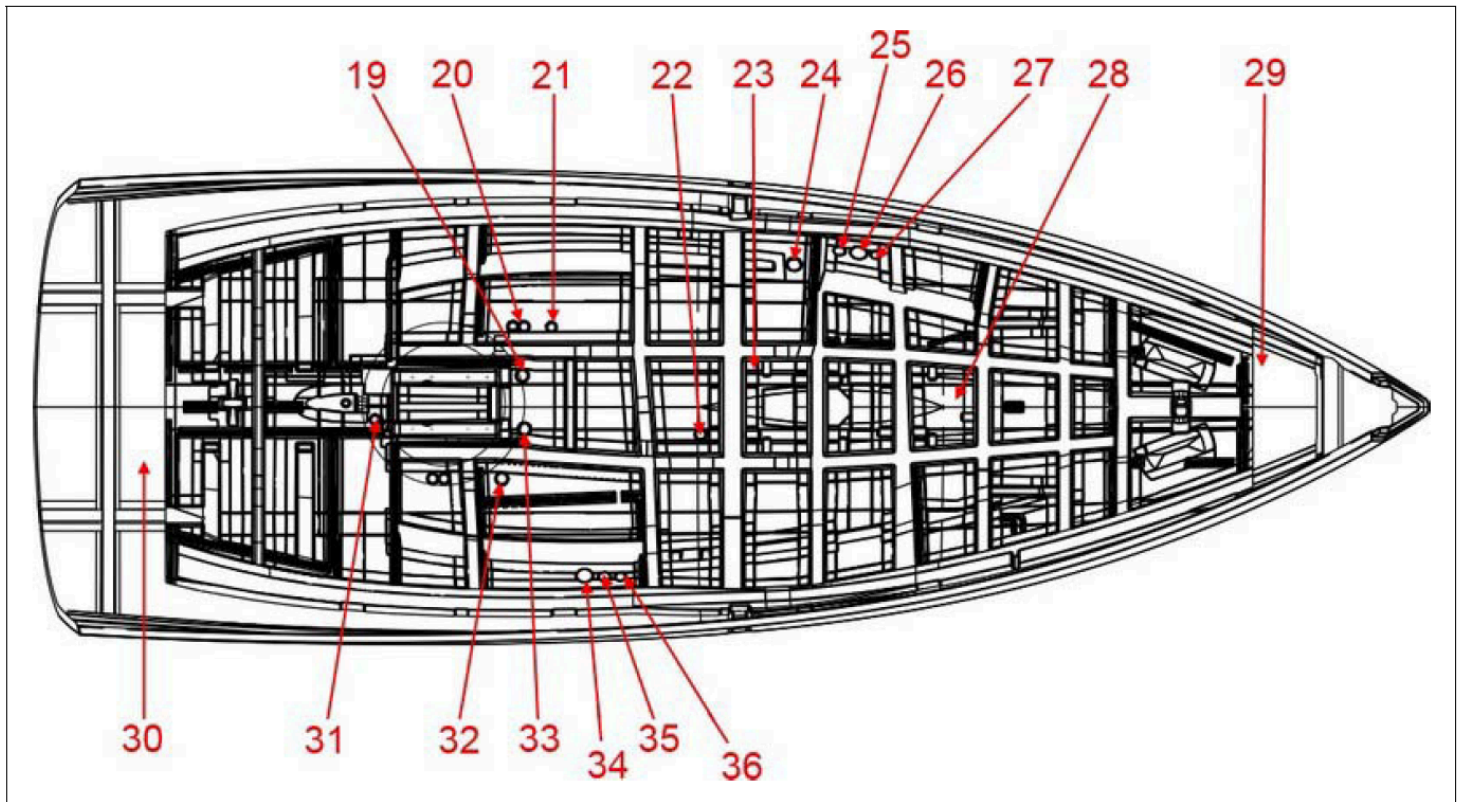
There two speeds (strengths) 1 = FAST 2 = SLOW

Inserting a winch handle into an unloaded winch automatically disconnects the motor transmission and allows it to be used manually.



NOTE: Heavy use is made of the batteries when operating the electrical winches. Make sure the battery bank is systematically recharged after a day's sailing.





Reference	Designation	Valve
19	Sea water intake - Motor	Yes
20	Earthing plate - DC/AC converter & Generator	Not
21	Sea water intake - Water maker	Yes
22	Sea water intake - WC	Yes
23	Sea water intake - Foot pump	Yes
24	Galley sink drain	Yes
25	Head washbasin evacuation	Yes
26	Black water drainage tank (WC)	Yes
27	Sea water intake - WC	Yes
28	Sensor	Not
29	Sea water intake - Deck wash pump	Yes
30	Seawater discharge - Generator	Yes
31	Sea water intake - Sternpost	Yes
32	Sea water intake - Generator	Yes
33	Sea water intake - Air conditioning	Yes
34	Black water drainage tank (WC)	Yes
35	Head washbasin evacuation	Yes
36	Sea water intake - WC	Yes