

Lady Grey

Owners' Notes

2016 Beneteau Oceanis 45



Last Updated November, 2023

Welcome aboard Lady Grey!

Dear Guests,

Lady Grey, our 2016 Beneteau Oceanis 45 will be an amazing choice for your cruising adventure. When we found her, we discovered the perfect San Juan and Canadian Gulf Islands cruiser. We know that like us, you will cherish every day aboard her.

SAILING: *Lady Grey* is a delightful to sail, and it's easy to move her along in light air, which is common in the depth of San Juan summers. A furling main and genoa make deploying and reefing the sails easy, with all lines led directly to the cockpit.

HANDLING: *Lady Grey* has a modern hull with wide stern sections that increase interior volume and reduce heel. *Lady Grey* has a deep single spade rudder and a 7ft 2in deep keel. Bow thrusters make docking in small marinas surprisingly easy.

CABIN: *Lady Grey* has a spacious salon with three cabins and two heads, both equipped with electric toilets and showers. All beds are queen-sized and the salon settee converts to a fourth berth. Both heads have separately screened showers. The galley has a three-burner gas stove and oven, microwave, sink, refrigerator/freezer, and a complete complement of cooking tools, spices and accessories. The large dining table and expansive wine-storage match the French origins of our beautiful Beneteau.

COCKPIT: The expansive cockpit features a large drop-leaf table. Twin helms allow for outboard steering and clear sightlines forward. The electric swim deck provides access to the dinghy and is a great spot to hang your feet in the water. Engine controls are on the port side, and the B&G multi-function display (MFD) chart plotter pivots, so it's easily visible from either helm. An all-season dodger and bimini keep you warm and dry; full cockpit enclosures are available upon request.

ELECTRONICS & ENTERTAINMENT: *Lady Grey* features a state-of-the-art navigation and instrument system, making your travels easy and safe. She's equipped with B&G's Zeus2 12" full-color touchscreen chartplotter and multi-function display (MFD), B&G's patented SailSteer system, B&G's Triton2 multi-function display and autopilot, radar and AIS. The MFD supports multiple panels on one screen to customize the information presented. It includes tide and current displays, photo overlays, sun and moon charts, and many more useful features. A FUSION audio system with Bluetooth and USB connections lets you enjoy your favorite music throughout the boat. Books and games are available in the salon, and there are warm throws for late-night stargazing in the cockpit.

ENGINE: Her 57hp Yanmar engine and SD-60 saildrive has plenty of power. *Lady Grey* has a 53-gallon fuel tank, providing a cruising range of 375+ nautical miles.

Lady Grey has given our family a lifetime of memories as we have sailed her through the San Juans. Sitting at anchor watching the sun set, gliding along with whales and sharing laughter with new friends on the dock have left an indelible mark in our lives. We know she will give you even more moments of peace and joy.

Wishing you wonder and restoration!

Dana and Brenda Anderson



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1. Nuances

In many ways Lady Grey is similar to other charter boats. Therefore, you are likely to find most of her systems will be familiar and easy to operate. There are a few things about her that are not 'typical'. Those listed here will help you enjoy a successful charter.

Solar Power- Lady Grey has 200W of solar power generation. Given adequate sunlight and conservative power use she can sit at anchor for a couple of days. Her batteries require between 6-8 hours to fully charge. We recommend picking up shore-power at least once during a week-long cruise.

Shore Power Cords – Lady Grey has two cords. The 50Amp end needs to be plugged into the boat. The 30Amp male connector end can be plugged into the dock outlet or the 30Amp extension cord. Both cords are stored in the starboard cockpit floor lazarette behind the helm when not in use.

Battery Charger Noise- Guest sleeping in the aft starboard quarter berth will hear a fan cycling when plugged into shore power. If batteries are fully charged, turning off the charger will give a more restful sleep.

Anchor Chain- Lady Grey has over 250' of anchor chain. She can easily anchor throughout the San Juans, which is one of our favorite things about her. The chain is marked with color coded links at 25' increments. The chain will pile up in the chain locker as it is retrieved - avoid that "chain mountain" by pushing the chain forward in the well using the boathook. Having a second person assist with this task makes retrieving the anchor easier.

Filling the fuel tank- Be sure to listen closely as you fuel the boat. A spill can be both embarrassing and costly. We use the gauge to estimate how much fuel to take on (each ¼ bar represents about 6 gallons).

B&G – order of power on – Although state of the art, the B&G system works best when powered on after the VHF system has been powered up. If you notice the windspeed is not displaying this is typically caused by starting the system in a cycle other than: 1) Navigation Instruments on at control panel, 2) Large display on, 3) Smaller displays on. Power them all down by simply switching off at the main control panel.

Forward Stateroom overhead hatches- Please ensure that all hatches are closed prior to getting underway to prevent damage from jib sheets. In addition, please do not step on the hatches while on deck. As a reminder, the hatches all have "NO STEP" stickers on them.

Throttle and Saildrive - The transmission for the Yanmar SD-60 Saildrive on Lady Grey and other boats can feel like they are slipping and not engaging immediately. Let the engine warm a bit before backing out of a slip. When shifting from reverse to forward (and vice versa), proceed slowly and smoothly: pause for 1-2 seconds in neutral (say to yourself "one & two &"), then shift to idle forward (reverse) and pause again for 1-2 seconds, then smoothly advance the throttle forward (reverse). Remember, slow and smooth is better than fast and jerky! When backing out of a slip or maneuvering in tight quarters, allow some extra time and distance for the boat to drift backward.

Humming lines at night- We found the topping lift or the outhaul on the mainsail can cause some thrumming noises at night. Relaxing both will give you a restful evening.

2. Vessel Specifications and Information

Make	Beneteau
Model	Oceanis 45
Year	2016
LOA	45’9”
Hull Length	44’3”
LWL	42’10”
Beam	14’9”
Draft	7’1”
Displacement	21,048 lbs (dry)
Mast height above WL	69’ (with antenna)
Fuel	53 gallons
Water	140 gallons (2 tanks)
Hot Water	10 gallons
Holding tanks	20 gallons each in forward and aft heads
Number of cabins	3
Number of heads	2
House Battery Capacity	420 Amp-Hours (Ah) (4@105 Ah each)
Engine Battery Capacity	105 Amp-Hours (1@105 Ah)
Battery Charger Capacity	60 Amps
Shore Power	30 Amp/120 volt
Hull number	BEYDJ120E51645
U.S. Coast Guard Number	1268427
MMSI No. (AIS Identification)	338314489
Permanent Vessel No.	1268427
U.S. Customs Re-Entry Decal	Located on the port helm console below the compass.
Washington State Parks Annual Permit	Located on the port aft side of the cabin top.
Other useful measurements:	
Berth Mattress sizes	6’9” x 4’ 11”
Headroom	6’7”
Refrigerator dimensions	23” x 31.5” x 22”
Freezer dimensions	18” x 19” x 31”

3. Emergency/Safety Equipment

Bilge Pumps

There are two bilge pumps: The manual bilge pump is located on the starboard side of the cockpit, just in front of the steering pedestal. The handle is in the starboard aft cockpit locker just forward of the pump. The electric bilge pump has automatic float switches but the switch on the electrical panel can be used to power the main pump manually (this breaker is normally in Auto). The electric pump is located under the salon sole about 2 feet aft of the mast compression post.

Emergency and Safety Equipment (miscellaneous)

Flares, air horns, and other essential safety equipment are in a mesh bag within the cockpit table aft storage. Eight PDFs are stored in the forward port closet. A Type IV throwable should always sit in the cockpit. A Life Sling is mounted on the stern rail.

Emergency Plugs

Each accessible thru hull opening located below the water line has an emergency plug taped to it. A diagram that shows these locations is included in this notebook.

Emergency Tiller

Located in the starboard cockpit locker. It fits on the rudder post which is accessed through the round cap between the helm stations.

Fire Extinguishers

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

- Forward cabin starboard side
- Galley, by your head if you are standing at the sink and
- Aft cabin starboard side

First Aid Kit

Located in aft head cabinet, above the sink.

Spare Parts & Supplies

Located in the port cockpit locker.

Tools & User Manuals

Located in the starboard settee cabinet. Toolkits are located in the port cockpit locker.

4. Emergency Procedures

Fire

There are three ABC rated fire extinguishers onboard. They are located (a) forward cabin stbd side (b) in the galley, by your head if you are standing at the sink and (c) aft cabin stbd side. 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. Also 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 sail drive thru hull seals which can be viewed through the access openings in either aft cabin, then the additional thru hulls. There is a diagram showing the location of the thru hulls in the notebook. Get the crew on deck and into life jackets. There are wood plugs tied to each of the through hulls.

There are two bilge pumps. The manual bilge pump is located on the starboard side of the cockpit, just in front of the steering pedestal. The handle is in the starboard aft cockpit locker just above the pump. The electric bilge pump has automatic float switches **but the switch on the electrical panel can be used to power the main pump manually (this breaker is normally in Auto)**. The electric pump is 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 in the starboard cockpit locker. It fits on rudder post which is accessed through the cap in the center of the cockpit floor. Emergency access cap 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.

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 LifeSling mounted on the stern rail, starboard side.

5. Anchors and Windlass

Anchors

Lady Grey is equipped with two anchors, one forward (44# Delta with 300’ of chain and 200’ of rode) and a Danforth in the port cockpit locker along with 15’ of chain and 200’ of rode. T

The scope normally used in the islands is 4 to 1. 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, **idle** in reverse for 1-2 minutes to set the anchor (no more than 1000 RPM). 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 primary chain is marked with color codes every 25’. The color sequence for length of chain is as follows:

<i>Chain Length</i>	<i>Color</i>
25’	white
50’	blue
75’	green
100’	yellow
125’	white
150’	blue
175’	green

200'	yellow
300'	red

The pattern repeats for the 300' of chain.

Windlass

The electric anchor windlass receives power from the auxiliary battery. The circuit breaker for the windlass is located under the starboard quarter berth. *Note: the windlass will run without the engine running. However, doing so for more than just a few seconds will drain the auxiliary battery, so it is necessary to have the engine running when using the windlass.*

The up-down remote controller for the windlass is secured inside the forward 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.*

Deploying the Anchor

Lowering the anchor:

1. Turn on the circuit breaker for the windlass (starboard aft cabin, near the floor).
2. Untie the line holding the anchor in place (this line doubles as the snubber).
3. Lower the anchor until the needed chain is paid out.
4. Secure the chain with the snubber and run out enough chain to take the load off the windlass. *Do not leave load on the drum.* If you are expecting wind during the night, it is a good idea to run the snubber over port roller and secure it to the port cleat. The reason is this, if the snubber line stays on the starboard side along with the chain it slides from side to side as the boat swings and bangs the chain into the roller brackets. It can be quite noisy for anyone sleeping in the V-berth.
5. Set the anchor by reversing at 800 RPM for 1-2 minutes, not going above 1000 RMP.
6. Turn off the circuit breaker and, if appropriate, turn on the anchor light.

Raising the anchor:

1. Start the engine.
2. Turn on the circuit breaker for the windlass and, if needed, turn off the anchor light.
3. Take in enough chain to retrieve the snubber.
4. When retrieving the anchor, never use the windlass to pull the boat; instead, slowly power toward the anchor while using the windlass (up button on the remote control) to take up the slack. Also, 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.
5. The incoming chain will pile up against the aft end of the chain locker, so the operator needs to push the pile of chain forward every 20-30 feet of chain (we recommend using the boat hook).
6. *Once the anchor is out of the water please bring onto the boat by hand.* Please do not pull the anchor up onto the rollers using the power of the windlass; doing so will likely chip the fiberglass as the anchor swings into the bow.
7. Secure the anchor by hooking the snubber onto the chain and tying it to the windlass drum (the chain over the drum should not be the only thing keeping the anchor onboard).
8. Switch the windlass breaker "off" to prevent draining the auxiliary battery, then turn off the anchor light on the main panel.

Stern Ties

There are times when adding a stern tie to shore will be handy, especially in Desolation Sound and north. Lady Grey has 500' of line on a spool for this purpose. It is stored in the port cockpit locker. The recovered line is usually very wet, so we leave the spool sitting under the transom seat for a couple hours to dry before we put it away.

6. Barbecue

The propane barbecue is mounted on the stern pulpit. Propane must be turned on using the switch below the sink in the main cabin. The barbecue supply line valve must be turned so it is in-line with the hose.



7. Bow Thruster

Controls are located at the port helm. *The engine must be running for the bow thruster to be activated.* To activate or deactivate the bow thruster, press the red and green buttons simultaneously. You will hear one short beep that indicates the bow thruster is activated and two short beeps when the bow thruster is deactivated. The bow thruster will turn off automatically after 20 minutes of non-use. The alarm can be confusing if you are motoring. We were surprised by the alarm more than once, until we learned the beep while under power was just the bow thruster going to sleep. You will know the bow thruster has gone to sleep if you hear two quick beeps. If you haven't used a bow thruster before, here are two tips:

- The bow thruster is not capable of serving as the primary means of steering your boat. We recommend focusing on using conventional steering techniques while maneuvering and apply the convenience of the bow thruster to fine tune or adapt to wind/currents.
- The bow thruster causes the boat to rotate on her keel. This means the stern will move into the dock if you are trying to move the bow away. Be sure to have at least one fender as far aft as possible to protect the stern of the boat.

8. Batteries, Charging & Inverter

Lady Grey has **6 batteries onboard**, one for starting the engine, one for the bow thruster and four in the house bank. We have her wired for maximum convenience. These three battery systems are separated from each other by an isolator, so each system is depleted independently. The battery locations are:

- House bank – under forward end of aft berths, two on each side.
- Start battery – under forward end of aft berth, inside battery on port side.
- Bow thruster battery – under V-berth, forward end.

Battery/Levels Monitor

Lady Grey has a display on the main panel to monitor the batteries (and other levels). The voltage normally starts at 13.5 when fully charged. It will drop when systems are in use and the house bank is draining. An alarm will sound when the battery bank reaches 11.7. It is best to recharge when the voltage gets near 12.0 volts. *Please do not run the voltage below 12.0, as doing so damages the batteries.*

Water and fuel levels can also be check using this same display by pressing the appropriate buttons (see picture to right).



Managing Battery Capacity

Lady Grey's house bank has 4 AGM batteries with 400 amp hours of total capacity. Due to the nature of AGM batteries there is approximately 200 amp hours of battery storage available to power the house systems. With moderate use and adequate sunshine, the house bank is good for 2 days without engine or shore power charging. Think of the house batteries as a savings account, and if you withdraw slowly, it will last for two or more days. However, if you turn on the inverter without the engine running to use the 110 volt outlets/microwave you will be 'overdrawn' pretty quickly.



Primary Shore Power Breaker

For general consideration, the refrigerator/freezer draws between 2 and 4 amps/hour, the furnace and lights are very similar in power consumption. Water pumps and heads are fairly light draws, but running the inverter to power the microwave will draw over 100 amp hours. We recommend running the engine whenever using the inverter.

Charging

Note: Marine deep cycle batteries take between six and eight hours to be fully charged when depleted.

Lady Grey's batteries are charged in three ways:

1. Solar: Lady Grey has (2) 100-watt solar panels. Charging the house bank from these panels is handled automatically.
2. Engine: Charging happens automatically when the engine is running at cruising speed.
3. Shore Power: Following is the procedure for charging the batteries when connected to shore power.
 - Connect the shore power cord(s) to the dock outlet. Note that Lady Grey has two cords – a primary 30Amp, 50' cord with a 50Amp female connection on one end and a 30Amp male connection on the other end. The 50Amp end needs to be plugged into the boat. The 30Amp male connector end can be plugged into the dock outlet or the 30Amp, 25' extension cord. Both cords are stored in the starboard cockpit floor lazarette behind the helm when not in use.
 - Ensure the dock outlet breaker is turned on.
 - Turn on Lady Grey's Battery Charger breaker (found on the AC panel)
 - Verify the batteries are charging by checking the battery/levels monitor (should quickly read > 13V)

To problem solve shore power charging issues, follow these steps:

1. Check all cable connections.
2. Verify the dock breaker is turned on.
3. Check Lady Grey's primary breaker located inside the port cockpit floor lazarette near the shore power cord outlet (see photo on right). This breaker rarely trips but if it does try resetting it once. If it trips a second time, then contact San Juan Sailing for assistance. Refer to Section 4 of the white Charter Guest Reference binder for contact phone numbers.

Inverter

We have installed a 2000-watt inverter so 110V power can be used when not connected to shore power. As noted above, we recommend running the engine when using the inverter. *We suggest leaving the inverter turned off unless you need 110V power, as you will drain the house batteries without realizing it.*

To turn on the inverter, press the on/off toggle button on the controller located above the main panel (on top of the shelf against the outside hull). You will know the inverter is on when the microwave beeps "on".

Should the inverter not turn on, check to ensure the breaker located in the starboard quarter berth closet is turned on.



9. Berths

Our boat sleeps eight comfortably; 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 about equal to a queen bed. Also, each of the berths, but not the salon, has a memory foam topper for extra comfort.

The salon table can be made into a queen bed. To do so, lift the table off its legs, remove the legs and replace them with the shorter version, which can be found in the wood flip-up counter cabinet immediately forward of the freezer compartment. Once the table is re-installed on the short legs pull the chain under the aft-outboard corner of the table and rotate the top 90 degrees. Then unfold the table to its full size. Add the cushions (stored in the vberth port locker) to create a comfortable bed.

10. Dinghy and Outboard

Lady Grey is equipped with a 3.5 hp Tohatsu outboard motor. The dinghy is roomy (easily holds 5-6 adults) and the outboard is easy to operate. The dinghy tows with the least drag if brought close to the boat – a few feet off the stern. This guarantees that you won't accidentally wrap the painter around the propeller when you back up! **Please tie it to the port side to keep it away from the engine exhaust.**

As owners, we would very much appreciate your special care when beaching the dinghy. Beaches in the San Juans are seldom gentle, sandy beaches; often they are rocky and covered by barnacles equipped with extra sharp rubber cutters. So, any extra care will be appreciated.

The outboard has a four-stroke engine, so do not add oil to the gasoline mixture – it uses straight gasoline. San Juan Sailing will be sure you have full gas can which is normally in the dinghy. Also please do not cruise with the outboard on the dinghy as a large wake or gust of wind can overturn the dinghy.

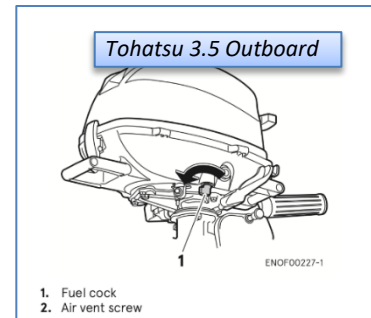
The Tohatsu is light so it's easy to transfer from the stern rail mount to the dinghy transom (and vice versa) by hand.

Tohatsu 3.5 hp Operating Instructions

Starting the Outboard

- Check engine oil level in the clear site gauge
- 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).
- Open the air vent screw on the tank cap
- Twist fuel valve to open position
- Set the control level to the neutral position
- Set the throttle grip to the start position
- Pull the choke knob fully out
- Pull the starter handle slowly until you feel engagement
- Keep pulling until you feel less resistance, then pull quickly. Repeat, if necessary, until started
- After starting, return the choke knob to starting position
- Check cooling water is coming out (a stream of water from back of engine)

Note: Choke is not necessary when the engine is warm, simply set the throttle grip to "restart". If engine doesn't start with 5 pulls, push the choke back and set to "restart".



To Shut Off

- Shut the outboard off by pushing in the red shut-off knob (where the kill clip is clipped in).
- Turn the throttle grip to slow and shift lever to neutral.
- Run the engine for a few minutes at idle to cool down.
- Push the stop switch.
- Close the air vent screw on cap.
- Close the fuel valve.
- 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.
- To put the outboard shaft back in the water, release the black lever on the starboard side of the shaft.
- Put the outboard back on the outboard mount on the stern rail and **tighten both braces**.

Troubleshooting

If the engine won't start, review the steps above to make sure you've done all the steps. There is a spare spark plug and spark plug wrench in with the safety equipment in case you need them. If the outboard is running and you're heading toward shore, and the engine suddenly quits, it's usually that someone has forgotten to vent the fuel cap. If the engine is running fine but the propeller isn't moving, the shear pin is probably broken – just take the cotter pin out to remove the propeller and replace the broken shear pin (spare near carrying handle under rubber plug).

11. Docking

Lady Grey has a relatively high freeboard which will create sideslip in heavy winds. Be aware that she turns better with a little speed (around 1.0 knot). We activate the bow thruster and approach the dock slowly, but with sufficient speed to address sideslip. Position a crew member at midship, and when close to the dock attach

the midship line first. Remember- Lady Grey has a bow thruster. She will easily move away from or toward the dock at the bow. With just a bit of rudder pressure practice, you can make her walk sideways. It is truly a joy to experience.

12. Dodger, Bimini & Full Enclosure

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. DO NOT WIPE OFF THE WINDOWS.

The connector canvas between the dodger and bimini can be removed by unzipping and sliding the connector out of the plastic track. Feel free to fold and store the connector piece when not in use.

When requested, we provide canvas/windowed panels to create a full enclosure around the cockpit. However, they are fragile and bulky to store, so we do not have these on the boat for summer charters. If you are doing a spring or fall charter and would like to use them, please let San Juan Sailing staff know ahead of your boarding. If you are using the panels for spring or fall, please do not remove them as the glass scratches easily and is difficult to repair. To move between the cockpit and deck, unzip the side surround panels vertically at the mid-section and use the upper corner snap to connect the front side panel to the dodger railing, carefully allowing the window vinyl to settle into a rounded curve bending slightly back on itself.

13. Electrical Panel



The electrical panel on Lady Grey is straight forward and clearly marked. When you leave the boat at the end of your trip, simply leave the Refrigerator and Bilge Pump switches in the “on” position. Also ensure the battery charger is on (the outlets can be left on if desired). The switches have colored dots next to them to help identify when they should be ON or OFF. Refer to the color dot legend at the bottom of the panel.

The right side of the panel has the level indicator for the batteries, water, and fuel. Press the appropriate button for the level you want to see. Further detail on this display is shown in the earlier section on Batteries.

Phone/Device Charging

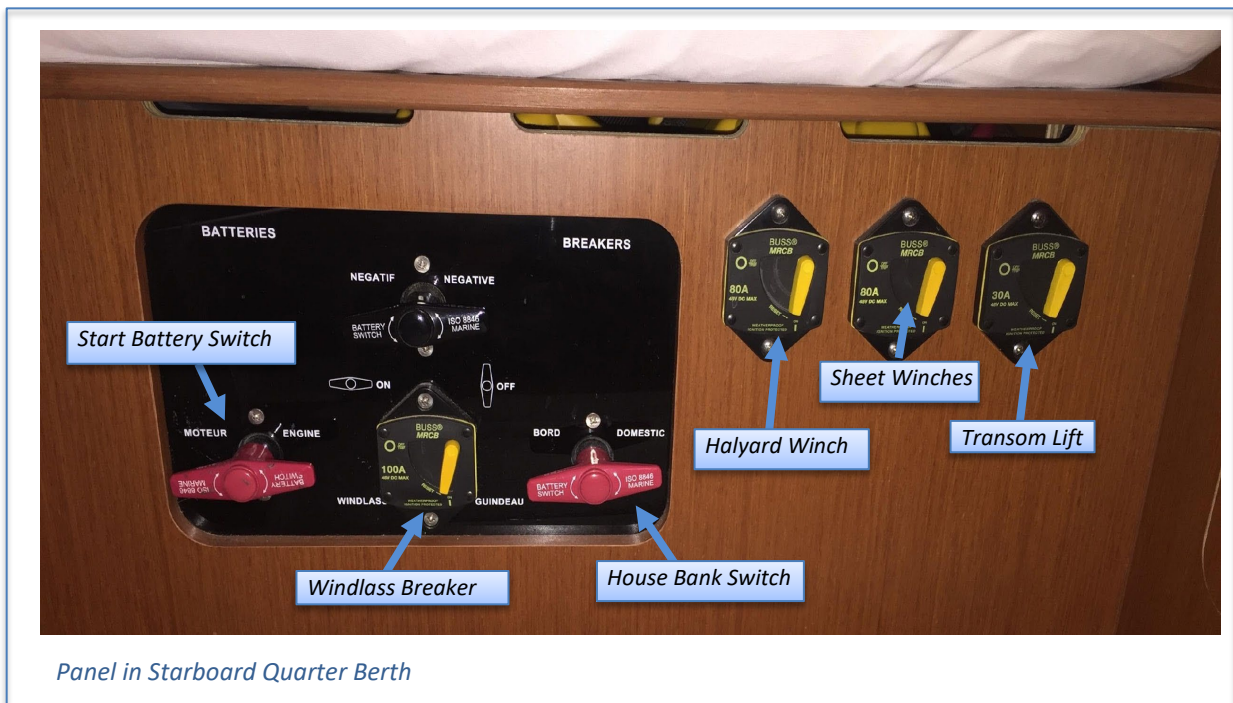
There are (2) 12-volt cigarette lighter type outlets on Lady Grey. One on the main panel and one within the forward section of the cockpit table. In addition, there is a USB port in the cabinet above the panel. **NOTE: The Fusion stereo unit located in the same cabinet must be ON to get power to the USB port.**

To charge devices using a normal 110-volt outlet, either connect to shore power or activate the inverter. (Note: the inverter draws significant battery power and we recommend running the engine while in use).

Additional Breakers

There are two other breakers not shown in the pictures; the first is the main 110V breaker, located in the aft port side lazarette (behind the wheel, mounted on the bulkhead up high. If shore power is not working check this breaker – up is on. The second breaker is for the 110 V outlets and is in the cupboard next to the Fusion stereo).

The battery bank breakers are in the starboard quarter berth. Generally, these will not be moved during a charter. Check to ensure they are on if the windlass, electric winches or transom lift stop working.



Panel in Starboard Quarter Berth

14. Electronics/Instruments

Lady Grey has a full set of B&G instrumentation, including chart plotters, radar, AIS, depth sounder, knot meter and wind gauge. Lady Grey's chart plotters, autopilot, depth sounder, and wind instruments, are connected systems of B&G products and our Fusion stereo and Simrad radar is also fully integrated into the systems.

Highlights

- Three interconnected B&G Zeus2 chart plotters, one at each helm and one in the aft of the cockpit table. All three operate independently but are powered by the same breaker and feed from common systems of information.
- **IMPORTANT:** To power on follow these steps- 1) Turn on instruments breaker on the main power panel in the cabin, 2) Turn on each chart plotter by pressing and briefly holding the power button located in the lower right, 3) After startup is complete, touch "OK" on the screen to enable use.
- The screens default to the last display used but display types can be changed by touching the grid of boxes in the upper left corner of the screen. The "home screen" will then appear, and you can select the main view that is desired (Navigation, Wind, Radar, etc.)
- Please refrain from changing settings beyond the typical functions like chart orientation, radar overlay, AIS overlay, and right side of the screen default summary information.
- The commonly used selections are detailed below. For more information, please consider downloading a B&G user manual, or visiting a B&G YouTube tutorial (search for Zeus2).



Chart Plotter/Radar

As is typical of modern chart plotters, Lady Grey’s instruments can display the following information in addition to the basic navigational charts: Radar, A.I.S., Autopilot, Wind Speed, Depth and Speed.

Highlights

- B&G Zeus chart plotters at each helm.
- Large Zeus chart plotter at aft end of cockpit table.
- Standard compasses are located at each helm.
- Main chartplotter control knob has been removed (was catching on sail lines). Use the touch screen like a tablet.
- Turn on Navigation Instruments at main breaker first to begin startup, and turn off at main breaker to shut down. **Failure to follow this procedure will typically result in inconsistent navigation system integration.**

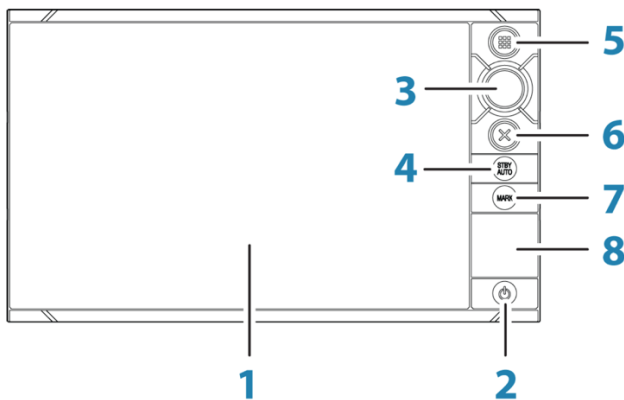
We have three color chart plotters installed, 7” displays at each helm and a 12” display in the center cockpit table frame. All are integrated with the radar. We recommend FIRST turning on the VHF radio in the salon. Next turn on the “Nav Instruments” breaker at the electrical panel, then press the power button (lower right corner) of the 12” display. Complete the process by turning on the two smaller 7” displays at each helm. After turning on the radio and navigation systems, check the following to confirm successful power-on procedures:

- Location is displaying on the radio
- All instrumentation (wind, boat speed, depth) are displaying on the chart plotter

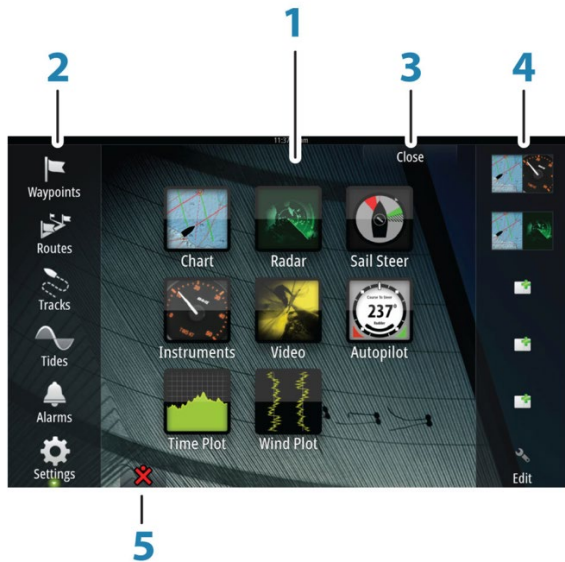
Commonly Used Chart Plotter Selections:

Selecting Applications:

Use Home key (Touch upper left corner on screen or press and briefly hold upper right Home button on instrument bar, #5 in image below).



Finding navigation charts: Go to home screen and select Chart Application (see image below).



Zooming in and out: Press “+” and “-” icons at bottom of screen or “pinch to zoom” in or out on screen using 2 fingers.

Returning the screen to the vessel’s current location: Touch “Clear Cursor” at the bottom of the chart screen.

Clearing Preexisting Waypoints, Routes and Tracks: Press Home Button in upper right, or menu icon (array of 9 squares) upper left corner of display screen. Find – Waypoints, Routes or Tracks – delete all or selection.

Chart Orientation: Subject to your preference, we recommend Heading Up. 1) Menu icon, 2) More Options, 3) Orientation.

Display Brightness: Press and quickly release the Power button. Select “Brightness” option, and adjust brightness using the slider slider on the screen.

Course over Ground (COG) Vector/Line: Ensure the COG line is always ON. If not currently on:

1. Press and quickly release the Power button
2. Settings
3. Chart
4. Extension Lines
5. Set the Course over Ground (COG) Vector/Line Length
6. Select “infinite”

The manuals for the chart plotter and radar are in the starboard cupboard near the mid-ship.

We recommend that your PRIMARY navigation tool be the Maptech waterproof chart book or paper charts (both have the most active “killer rocks” marked in red). The best way to stay off the rocks is by knowing where you are at all times. The primary role of the chart plotter is to verify that you are where you think you are. And, when in a tight place it will allow you to zoom in for a better view than the real charts provide.



Radar

You should have little need of the radar except if you are suddenly enveloped by fog. Fog in the islands usually forms in the wee hours of the morning and burns off by mid-day. So, 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 or set it as a chart overlay to develop a familiarity with what it looks like.

Quick steps for use:

- Go to Home Screen
- Select Radar/Chart
- Or, Press and quickly release the Power button.
- Select Standby or Transmit as needed.

AIS Overlay: This feature is always on. If you see a vessel on the chart plotter, touch the vessel icon and an information screen will appear. Select the 'x' in the upper right corner of the screen to close the informational display.

A.I.S. (Automatic Identification System)

Highlights

- *Lady Grey* transmits her position and data via an AIS signal as well as receives AIS signals from other vessels equipped with AIS transmitters (Commercial vessels are required to have AIS, recreational vessels are optional).
- The VHF base unit radio and must be ON to send and receive AIS data. The chart plotter is tied to the VHF radio and shows AIS vessel positions as triangles.
- AIS information supplements marine radar, which continues to be the primary method of collision avoidance for water transport.

Details

AIS vessels appear on the chart plotter screen as triangles. The triangle points in the direction that the vessel is moving and if you touch the screen over the triangle the system will give you additional information (such as name, size, speed, bearing, etc.) about the vessel. The system also transmits this same type of information about *Lady Grey* to other vessels with AIS.

AIS requires each vessel to have a 9 digit MMSI (Maritime Mobile Service Identity) number to transmit position and data. We have entered **Lady Grey's MMSI number (338314489)** into all required systems. The AIS is an added safety feature which allows large commercial vessels to easily see you and your direction/speed. They may try to contact you via VHF channel 16 to verify your course intent. In addition, AIS allows San Juan Sailing/Yachting to provide faster assistance in case of unplanned maintenance issues as well as alert San Juan Sailing/Yachting of Vessel name's return approach. Vessels with AIS can be viewed in real time through mobile device apps and websites like www.marinetraffic.com that will reveal vessel name, course, speed, track, and other information.

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well as alert San Juan Sailing/Yachting of *Lady Grey's* return. Vessels with AIS can be viewed in real-time through mobile device apps and websites like www.marinetraffic.com that will reveal vessel name, course, speed, track, and other information.

Depth Sounder

The depth sounder will not give accurate readings beyond 400'. In deeper water, the sensitivity on the unit increases as the transducer tries to get some reading back. Consequently, when you are in deep water false readings caused by currents, changes in water temperature, fish, etc. are common. These false reading often report very shallow water so knowing you are in deep water will prevent momentary heart attacks. The depth showing on the sounder is being measured from the transducer (about 18" under true water level) so the water under the boat is really a bit deeper than the reading. But, we strongly recommend leaving 10-12 feet of water under the boat.

We suggest using the depth sounder mainly as an aid to navigation in shallow water. However, the key to avoiding rocks is not the depth sounder – but knowing where you are on the chart at all times. ROCKS ARE THE SINGLE BIGGEST NAVIGATIONAL AND SAFETY HAZARD IN THE ISLANDS – BUT THEY ARE ALL MARKED ON THE CHARTS. We do not recommend using the alarm. Experience in the islands tells us that it goes off at the wrong time – usually the middle of the night as a seal or fish passes underneath.

Knot Meter

If the digital knot meter shows a reading of "0.00" while underway, the impeller is most likely clogged. Sometimes it will clear itself; wakes from big powerboats are good for this. You can also try clearing it by traveling in reverse. The instrument transponders are under the floor panel, immediately inside the forward stateroom. We do not recommend removing the impeller to clear it, please contact SJS regarding any knot meter challenges. If needed, the SOG (speed over ground) reading on the chart plotter will work as a standby knot meter.

Audio (Playing Music)

- The Fusion marine stereo is located on the starboard side of the salon in cabinet above the AC/DC panel, with speakers in the cabin and cockpit.
- The Fusion will allow you to stream Bluetooth music by selecting auxiliary from the input menu.
- The USB port to the right of the Fusion is powered by the Fusion unit. This port can be used for charging phones and computers.
- Please, be aware of other boats when you are in harbor and adjust the Fader so that the cockpit speakers are turned off when not in use.
- To manage audio streaming/playback:
 - We have found the best way to manage devices and sound levels across the 2 zones is to use the B&G chartplotter controls.
 1. Follow instructions above to turn on the main chartplotter (center of cockpit)
 2. Touch the menu button (upper left of screen)
 3. Scroll to 'Audio'
 4. Select source
 5. Manage zones by touching the balancer icon
 6. Manage volume using the volume slider

VHF Radio

Lady Grey has two VHF radios. One base unit mounted in the salon on the port side and a separate handheld unit located in the forward section of the cockpit table.

The base unit also has a linked handheld stored in the Fusion radio cupboard. The base unit and it's handheld utilize the mast mounted antenna and have greater transmission ranges. We've found the portable (cockpit table based) VHF unit to be more convenient.

A portable handheld VHF radio should be moved to the cockpit while underway. The handheld radios need to be charged every couple of days. There is a USB charging port and cable in the cabinet. See photo on right showing the radio connected to the USB port. **NOTE: The Fusion stereo unit located in the same cabinet must be ON to get power to the USB port.** The radio is charging if the battery symbol is showing on the radio screen when the radio is turned OFF.



The VHF base unit radio must be ON to send and receive AIS data. See **A.I.S. (Automatic Identification System)** section above for detailed description of AIS.

A separate handheld VHF is typically in a charger base near the galley, and is available as an emergency backup or ship to shore communications.

We recommend that you monitor Channel 16 during your cruise and shift to specific channels when entering ports to contact harbor masters.

If you make contact to another VHF user on Channel 16, move to a working channel (68, 69, 72, 74 or 78). We listen to weather channels (Normally 4 while in the San Juan Islands) before we sail in the morning and prior to anchoring for the evening. Listen for the reports identified as "Northern Inland Waters". San Juan Sailing monitors channel 80 during office hours (closed Sundays).

Details

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

Turning On and Off the radios – Base unit: Turn the Volume knob on the upper right of the unit. Handheld: Long press the power button (upper right). Turn off by long pressing the power button.

Silencing a DSC Alarm – When another boat (or the Coast Guard) sends out a DSC signal on a radio, it will activate an alarm on the radios of all boats in the area. To silence this alarm, press any key on the radio.

Changing from High to Low transmit power – Press the H/L button on the mic. The LCD display shows HI or LO. HI is 25W and LO is 1W. When channel 16 is selected, the unit will automatically switch to Hi power. On the handheld, make a long press of the OK / H/L button (in the center) to change power.

To quickly get to channel 16 – press the green 16/9 button. A long press will take you to channel 9.

Accessing the weather channels – Pressing the WX / NAV button will toggle between weather channels and normal channels.

Adjusting Volume and Squelch

Base Unit: The upper right knob is the Volume and ON/OFF control. Squelch (screening static) is a separate knob that is turned up or down. Rotate the squelch knob until the point of silent static.
Handheld: The Volume +/- soft key is on the right side of the unit. The squelch is also accessed by touching the soft key and using the +/- soft key.

Changing between USA, International & CANADA channel modes

Open the main menu with a long press of the CALL / MENU button (lower right).

Select RADIO SETUP then UIC then USA, INT'L, or CANADA. The radios should be left in USA mode. The lower right corner of the LCD shows the channel mode selected.

How to set up and use Dual Watch Channel Scanning

Channel 16 is automatically included in the Dual Watch scan.

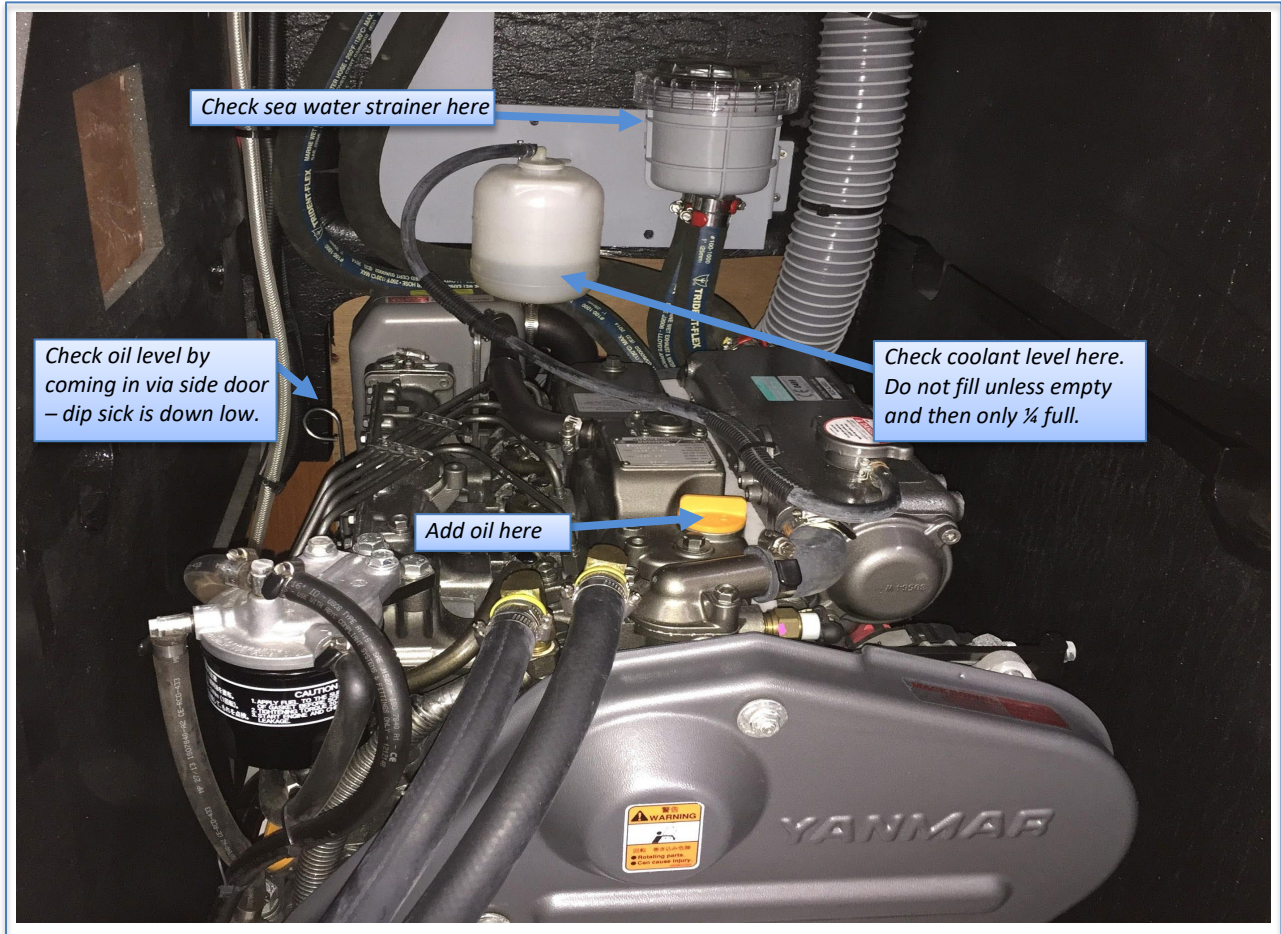
Dialup the second channel you want to include in the scan. Leave the radio set to this channel.

- To start scanning, press the SCAN button.
- The display indicates the unit is scanning by “blinking” the displayed channel. When a transmission is received on either 16 or the channel you selected to scan, the radio will stop scanning at the channel received.

Wind Instruments

Wind speed and direction can be displayed by selecting the appropriate page on the chartplotters. You will find the new B&G electronics provide detailed information about true and apparent wind. Also tack lay-lines are displayed as overlays on the chart plotter. We have learned to not become distracted by all the data, and to focus on the experience of sailing, with more emphasis on the feel of the boat and the movement of telltales, but we are kind of old school that way.

15. Engine and Operating Under Power



Operation

We have found the **54 HP Yanmar engine** to be very reliable. Cruising should be done at engine RPMs of 1800 to 2200, marked with dots on the tachometer. The following table gives approximate cruising information:

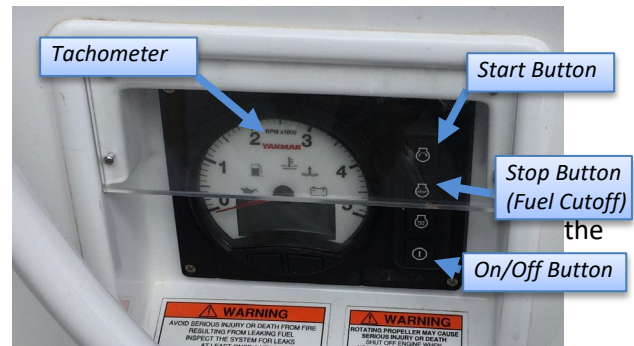
RPM's	Boat Speed	Fuel Consumption	Range (nautical miles)
1800	7.0 Knots	Approx. .9 gal/hr	300 nm
2000	7.3 Knots	Approx. 1.0 gal/hr	290 nm
2200	7.6 Knots	Approx. 1.2 gal/hr	250 nm

The ranges listed assume a 25% reserve in the 53 gallon fuel tank.

Also, there is a blower in the engine compartment which is vented in the transom. This blower is temperature controlled so do not be surprised when it comes on automatically.

Starting:

1. 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 stove.
2. Make sure the gearshift is in neutral (approx. vertical).
3. Push the On/Off button (bottom right 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.** Then, once panel has booted up (takes 3-4 sec.) and the engine alarm is sounding, push the Start button (upper right).
4. After she starts, check for water flowing out the exhaust.
5. There is no need to warm up the engine, getting out of the harbor will do this.

**Engine Overheat**

If the buzzer sounds while the engine is running, look to see if there is cooling water exiting with the exhaust and shut the engine down if you can do so safely. If you cannot shut down immediately, reduce engine speed to just above idle. The most likely cause is a blockage in the raw water strainer. To clear, shut down the engine and remove the strainer and any blocking material. Another case may be a failed impeller. There is a spare on board, but only replace if you are comfortable doing so. One final check is the raw water inlet. Shut down the engine, open the inspection panel in the port quarter berth and verify the inlet valve is in the open position. 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.

16. Fuel Tanks and System

The **fuel tank holds 53-gallons**. The fuel gauge is located on the main panel and can be activated by pressing the right-hand side of the level gauge control (see panel section). However, this gauge has a tendency to show large changes rather than fine gradations. Note the hours when you leave and fill the tank if have run 35-40 hours. The engine hours can be viewed using the digital readout on the engine panel, see diagram above.

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 deck fitting for the fuel tank is on the port side aft.

17. Galley and Salon Dinette Area

We have done our best to ready Lady Grey for you to enjoy your own meal preparations while on vacation. When we travel, we generally prepare most of our meals aboard and enjoy the fine dining experience of a sunset meal around the cockpit table. *(Although there are many wonderful places to dine in the islands)*. Lady Grey's galley has most everything you would expect to find at home. We have place settings for eight and most of the pots, pans and utensils for nearly all your meal preparation needs. There is usually a large assortment of

spices, condiments, and other supplies in the galley cupboards. 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.

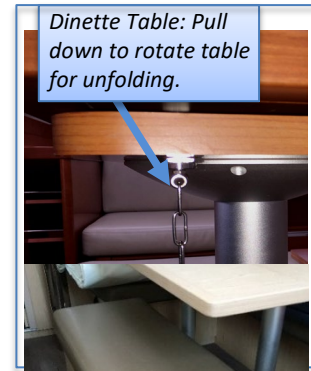
- Spices – most common spices are there, i.e. salt, pepper, oregano, sage, thyme, garlic salt, etc.
- Supplies – saran wrap, aluminum foil, baggies, containers, garbage bags and coffee filters.

Microwave

We have installed a microwave in the galley for convenience. You will need to be sure the inverter is on before using unless you are on shore power. Also, the AC Outlets switch on the 110V Panel will need to be on. Be aware the microwave can run batteries down quickly.

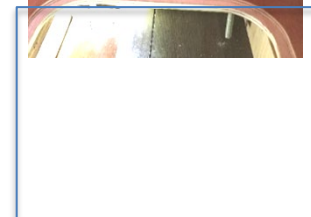
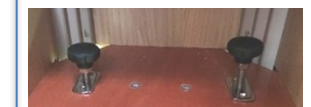
Salon Dinette Table

The salon table has two size options; cocktail size for ease of entry and exit from the seating and fully open for meal service. To expand the table, pull down on the chain under the aft-outboard corner of the table. This will release the top, so it can be rotated 90 degrees and the unfolded.



Dinette Bench Seat - The dinette bench seat can be moved away from the table to allow for seating. It is fastened to the floor with lateral hinges and bolts. Please carefully follow the procedure below to safely move the bench seat.

1. Remove the seat cushion (held in place by Velcro).
2. Open the seat storage compartment lid.
3. Locate the 2 retaining bolts (black knobs on top) at the forward end of the compartment. Remove the sub-compartment hatch so you can see the lower ends of the bolts.
4. Unscrew the port bolt until it’s free of the lower attachment plate.
5. The seat is also attached to the floor with lateral moving hinges which allow the seat to be swung 8” to the port. Grab the slot handles at the forward and aft ends of the seat. Lift up and to port to swing the seat on the hinges.
6. Screw in the starboard bolt to secure the seat in place.
7. Close lid and replace cushion. Ready for dining!



18. Heads and Holding Tanks

Both heads in Lady Grey are equipped with individual 21 gallon holding tanks and Jabsco Electric auto-flush toilets. We have installed holding tank monitors to accurately assess the current tank volumes. Lightly press the lower left “1” button of the monitor gauge and the lighted half-circle will indicate tank levels. (see right picture)



The Jabsco flushing control allows 3 methods of flush:

- The upper button provides an auto-flush which adds fresh water and then drains the bowl
- The lower left button adds fresh water to the bowl but does not drain
- The lower right button drains the bowl (without adding water).



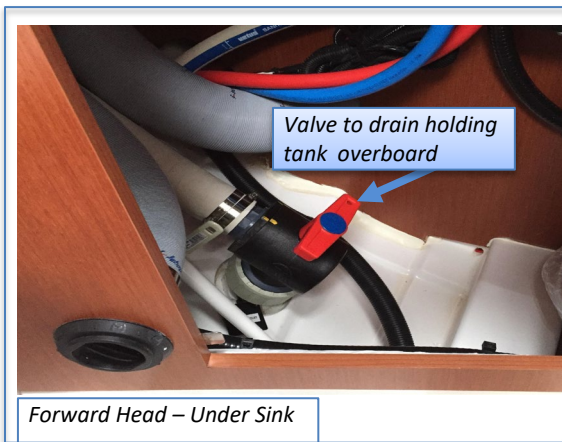
Press here to drain

The heads and holding tanks do well with a liberal amount of flush water.

Please discard hair and used feminine products in the provided wastebaskets as they are both damaging to the electric auto-flush toilets.

To pump out the holding tanks, you will find the two deck fittings on the starboard side. **If you have four people on board and have ‘normal’ usage, the tanks may need to be emptied every other day.** If you have more onboard or heavy usage, please plan on pumping every day, while attending to the tank monitors.

If travelling in Canada, the tanks can be dumped overboard by opening the drain valves: Both are under the sinks. 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).

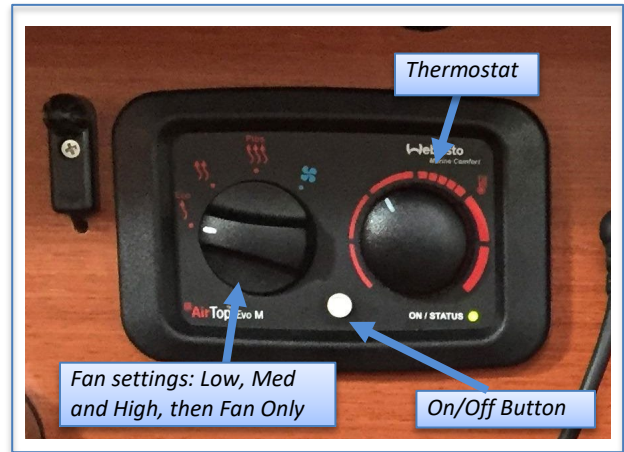


19. Heater (Cabin)

Lady Grey has a Webasto 5000 forced air furnace to provide heat throughout the boat during chilly evenings.

The Wabasto is controlled by the thermostat in the salon, to the left of the VHF radio. Simply press the button at the bottom of the controller to turn the unit on then set the temperature and fan speed you want. **There is a 2-3 minute delay from when you turn it on to when you will hear the fan running.**

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 fairly noisy, especially from outside the boat and in the starboard quarter berth. The heat is dry, comfortable, and on those occasional rainy days or cool evenings, makes a huge difference in cruising comfort!



20. Refrigerator/Freezer

The on/off switch is on the panel and each compartment has its own thermostat (see pictures). In the main compartment we usually keep the thermostat set a little below the 4 o'clock position (see the blue dot). Any higher and things start to freeze. Also, we normally leave the unit running 24 hrs a day without battery issues.

Drain Pump

There is a pump to drain the top-load section - the switch is to the right of the sink just under the counter lip. The front-load section does not have a drain and will need to be mopped out by hand.

Top Loading Freezer

We find it best to place ice cream and other critically important items at the bottom of the freezer. The thermostat setting is near 7 o'clock (see the blue dot), which is a good balance between desired coldness and battery use

Front-load Refrigerator



Top-load Freezer



21. Repairs (Tools & Spares)

It is our goal and hope that you will not need to make repairs during your trip. That being said, we have also provided a good selection of tools and spares in case you need them. The tools are stored in the port cockpit settee. The spares include engine filters and belts along with a replacement head parts. If you have problems that you are not comfortable handling, please call us or San Juan Sailing (see numbers on page 1).

22. Sails and Rigging

Mainsail

Lady Grey has an in mast roller furling mainsail. Unlike a standard main, it is best to have wind in a furling main when deploying, similar to 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). We installed a new mainsail in 2022 which does not have vertical battens. Since we have put on this new sail there have been no issues with unfurling. Here are the procedures we use for furling and unfurling:

Unfurling:

1. Un-cleat the boom vang, furling line, outhaul and main sheet.
2. Usually we wrap the main sheet 2 turns on the port winch but do not cleat it. The idea being to free the mainsheet but also keep it from running out.
3. Remember to fall off so there is wind in the sail.
4. Take a couple wraps on the starboard winch with the outhaul line. Start pulling the sail out of the mast by hand. **If you do use the winch, do not force the sail out. At the first sign that the sail is not coming out freely, stop and loosen the outhaul. Then, go forward to the mast, grab the foot of the sail and give it a hard yank out of the mast (aft). This method works 100% of the time for us with very little fanfare.**
5. Once the sail is fully deployed putting the outhaul on the winch is reasonable and necessary.
6. Tighten boom vang and sheet in as needed. It is okay to use the electric winch on the sheet.

Furling:

1. Loosen the sheet (don't need it flapping unless in stronger winds as it is best to keep a little wind in the main as it helps tension it for a tight wrap on the furling drum.
2. Un-cleat the outhaul and have a member of the crew hold this line as you furl the main. Keep tension on the sail so it wraps tightly around the furler.
3. Take a couple wraps on the starboard winch with the furling line. Pull by hand. You may need to use a winch handle, lightly, just to get it started. Do not use the electric motor!
4. The entire sail does not go into the mast, please leave the last foot or so exposed (it is section with sail controls and UV protection, which is designed to be out).
5. Tighten boom vang and sheet to keep boom from swinging too much but not so tight that the boom comes down to the dodger.

IMPORTANT: Be sure to keep a bit of tension on the outhaul in order to get a nice tight wrap of the mainsail inside the mast. A little wind (it does not take much) in the sail will accomplish the same thing. Remember, if you furl the main without any wind pressure on it (if you're becalmed), tension on the outhaul line is the ONLY force that will get you a nice tight wrap inside the mast. A loosely furled main inside the mast could mean a tough next deployment or, in the worst case, a jammed main. Also, be aware that too much halyard tension will cause the furler to bind. So, please do not add halyard tension. If the main is repeatedly arguing with you try loosening the halyard – it does not take much, just an inch makes a big difference.

Headsail

Our genoa is a 110 and makes a good sail shape when fully deployed. 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.**

Electric Winches

The electric winch should be used only for sheeting in the main, the jib or running a person up the mast on the boson's chair. IT SHOULD NOT BE USED TO ADJUST FURLING OR OTHER LINES. It is too powerful and can easily break sails, lines or fittings, all of which will break before the winch does. If the winches are not working, the winch circuit breakers are in the starboard quarter berth.

Sailing Characteristics

Lady Grey is a very solid vessel with surprisingly well balance handling characteristics. This being said, as with most modern cruising boats, Lady Grey has a beamy stern. This causes her to have excessive weather helm if she heels over too far. **Therefore, it is necessary to trim for less heel when the wind hits 15-20 knots.** Here are the basics: Move the jib cars back and sheet in to flatten the lower part of the jib, this will also twist off the top. On the main, tighten the outhaul to flatten the sail and loosen the sheet some to twist off the top. These steps seem to work well up to about 20 knots, beyond that reefing the main becomes necessary.

Showers

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 button located in the shower area. **Each time you press the black button the pump will run for a few seconds, so either hold it in or press it often,** or you may be swimming in your shower.

There is also a shower fixture below the stern seat on the starboard side and above the the swim platform. This is useful for washing off shoes after returning from the beach.

Stove

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

1. Make sure all stove controls are in the "off" position.
2. Turn on propane solenoid valve switch located below the sink in the topmost drawer.
3. The ignitor button is on the right side of the cooking panel. Press the ignitor switch then push IN the stove knob and turn to high. When the flame lights, hold in the knob IN for an additional 3-5 seconds.
4. When you are finished with the stove turn the solenoid switch off.

NOTE: 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 turn off the stove and close all the valves, including the one on top of the tank. Then re-open the tank valve, turn on the solenoid and finally turn on at the stove.

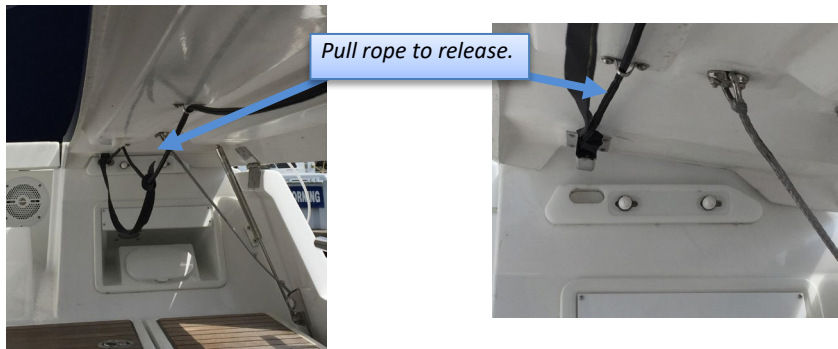
To light the oven, hold in the oven control knob and press the ignitor (you will hear it ticking). The flame will start. Continue holding 2-3 seconds to activate the pilot. Release and you will see the complete lit burner unit. If the burner unit goes out, repeat the above process. We find preheating the oven for 10 minutes produces a nice, even heat for cooking. (unless you like bottom-burnt cookies)

away from the boat. San Juan Sailing's staff fills the propane tank every 3 weeks (a tank normally lasts 4-6 weeks).

23. Swim Step

The swim step on Lady Grey is one of her best features. PLEASE ONLY LOWER THE LADDER AFTER THE SWIMSTEP IS DEPLOYED. Doing so prior, will scratch the stern of the boat. Follow the procedure below to deploy the swim step and do the reverse to retrieve:

1. If installed, unsnap the bottom of the full enclosure pieces all along the back of the cockpit.
2. Release and stow the aft life lines out of the path of the deploying seat/swimstep.
3. Pull the rope located under the aft cockpit seat to release the lock on each side. (see pictures below).



4. Use the hydraulic system to open the swim step – the control switch is by the port steering wheel (see picture below). Press down to deploy and up to retrieve the step. You will need to hold the switch down until the step is fully deployed.

Note: This swim step control only deploys or returns the step after a full range of travel. You cannot return the step after partial deployment. You must go all the way down first.



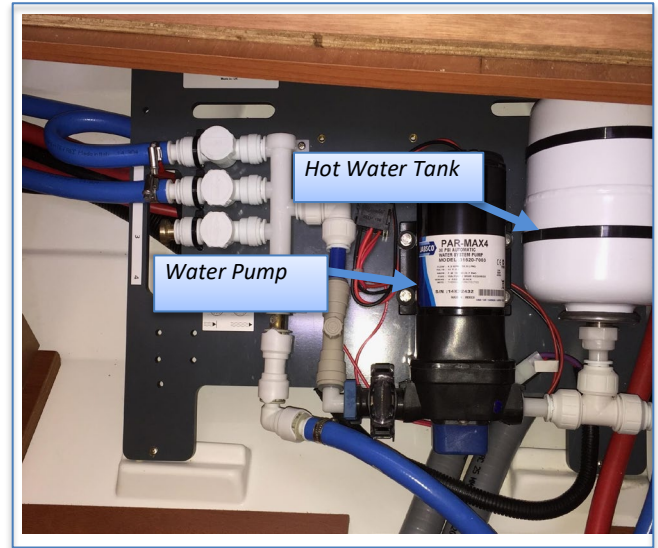
24. Water

Water pressure

The water pressure switch is located on the electrical panel. Please switch this off when motoring or sailing. You could burn out the water pump should the tank 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

- Lady Grey has two 70-gallon water tanks. Sinks & showers use fresh water from Tank 2 (Bow); marine toilets use fresh water from Tank 1 (Aft).
- The Aft 70-gallon tank provides water for the heads and can be filled via the starboard aft deck fitting behind the steering wheel; The Forward 70-gallon tank provides water for all sinks and showers and can be filled via **port** deck fitting behind anchor locker.



Water Heater

The water is heated automatically when the engine runs under load (it takes about 45 minutes), running 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 head. It can also be heated electrically when shore power is available. The switch is located on the 110 V panel.

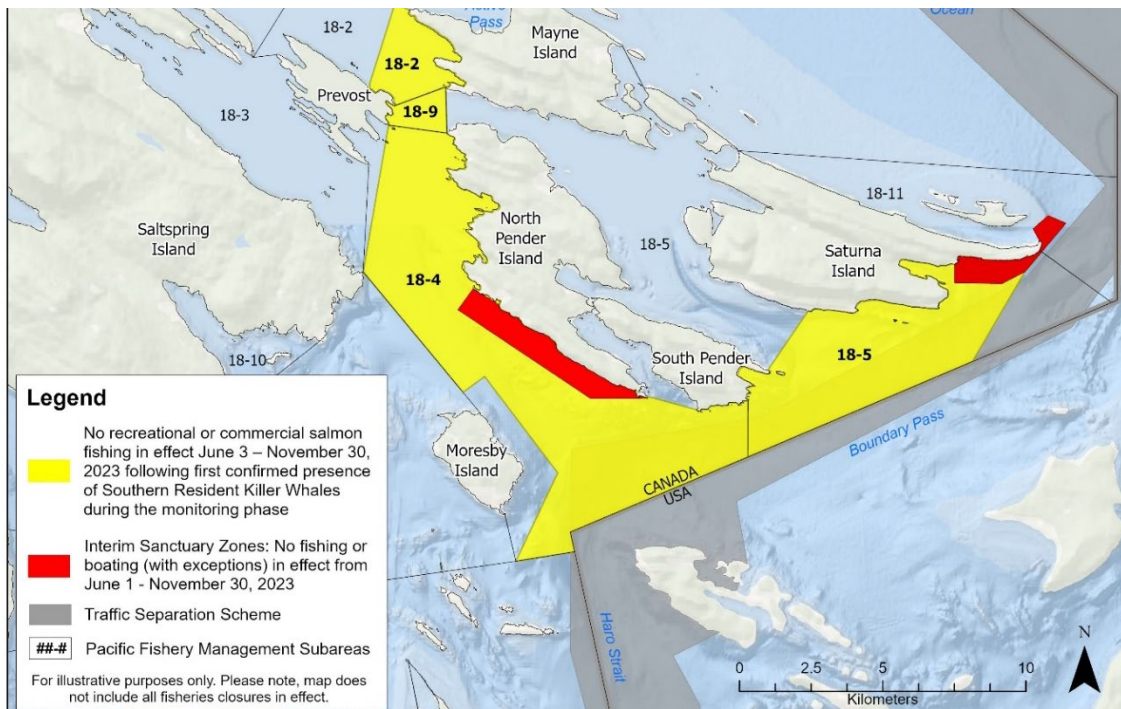
At the galley sink we have installed a foot pump. The pump can be fed with salt water or fresh water. The selector valve is located under the sink. **Salt water is fed with the red handle down and fresh water then the handle is pointing toward the side of the boat.**



25. Being Whale Wise with Lady Grey

Our local Killer Whales are a wonderful part of the local family. But they are having a difficult time surviving due to declining salmon runs. These whales use echo location to find and catch their food. Therefore, noise pollution from boats and ships make it harder for them to thrive. In an effort to decrease human impact both the Canadian and US governments have implemented rules. We provided you a summary of these rules in the packet you receive when you arrived and there is more information in section 10 of the white reference book onboard **Lady Grey**. In general, stay at least 400 yds. away from the whales. Sometimes they come to you, if this happens shutdown the engine and turn off the instruments (assuming this is safe to do). They can hear the pings of the depth sounder – this is why we have you turn off the instruments.

In Canada they have gone a step further by creating some zones where boats are not allowed. This further improves the environment for the whales. The red areas in the diagram below show these zones. Lady



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

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

