

**Owner's Notes**  
*Esprit de Mer*  
Jeanneau 45.2 (46' 6")

Welcome aboard *Esprit de Mer*!

We were charter guests aboard *Esprit de Mer* for several years through San Juan Sailing and fell in love with her. We had gotten to know Roger Van Dyken, former owner of *Esprit*, and founder of San Juan Sailing, on a SJS flotilla. When Roger called saying that he and the other partners in *Esprit* were ready to move on to new adventures and were we interested in owning her, it didn't take us long to think it over and say yes.

We've never been aboard a boat that glides as easily through the water, scampering in the slightest breeze, nor one that is as comfortable for friends and family aboard. Under power, she backs straight. The carbon fiber spars (lighter than aluminum), rod rigging and the 6'7" draft help stiffen her in a breeze. Her mast is five feet taller than standard to give more sail area and excellent light air performance. Under sail, she often leaves similar boats behind.



Her classic lines and blue hull turn heads wherever you go. Down below, warm teak tones...no plastic...finished with craftsmanship and pride yields an incomparable ambiance afloat. Her spacious salon, staterooms and cockpit never seem crowded.

We've made many wonderful cruising memories in the San Juan Islands and points north...our hope is that you enjoy *Esprit de Mer* as much as we do. If something comes up, please feel free to give us a call at 206-713-3345.

If you can think of anything that would make her more enjoyable for you, please let us know. We wish you fair winds and unforgettable seascapes. Thank you for being our guests!

Sincerely,  
*Katie and Bob Mearns*

PS *Esprit de Mer* is French for "*Spirit of the Sea*"

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## 1 Esprit de Mer Boat Specifications and Vessel Information

### Specifications:

LOA: 46' 5"	Displacement: 20,750	Fuel: 53 gallons (starboard);
LWL: 38' 5"	Ballast: 6,600	
Beam: 14' 8"	Draft: 6' 7"	Holding: 2 x 13 gallons
Year built: 1999	Water: 120 gallons	Bridge Clearance (Air Draft): 67'-0"

Engine: Yanmar 88hp turbocharged, w/ feathering 3 blade MaxProp

Sails: full-battened main and 130% jib (both new in 2022). Symmetrical spinnaker in sock, spinnaker pole (spinnaker available to those experienced).

Rigging: GMT carbon fiber high-rig mast, carbon fiber boom and spinnaker pole.

Electronics: ICOM VHF at nav and helm, Raymarine color chartplotter/radar at helm with active AIS; WA/WS/Boat speed at center console; DS readouts at both helms, nav station and master stateroom.

Staterooms: three doubles, 1 ½ singles

- 1 Forward: Owner's Stateroom island bed: 7' x 63" max width;
- 2 Starboard aft stateroom: 7' x 60" max width;
- 3 Port stateroom: 7' x 48" max width.
- 4 Main salon: adult single on settee, child single on island settee.

Headroom: 6' 6"

Heads: two fresh water electric toilets; separate round shower stall forward.

Refrigerator: 24"D x 23"L x 18"W with front and top opening.

Freezer: 24"D x 22"L x 9" W, top load

Other: electric primary winches, bow thruster, Bose stereo speakers, 26" HD TV/DVD, 2.3 HP Honda outboard on outboard davit.

### Vessel Information:

Washington State Parks Annual Permit Decal – Located on the cabin exterior, port side aft.

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

Vessel Official Number - 1083183 (same number as shown on the Coast Guard Certificate of Documentation found in Section 5 Documentation of the Charter Guest Reference Manual (white binder). Esprit de Mer's number is located in the port side cockpit locker. Look for 3" high numerals.

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

## 2 Esprit de Mer Nuances

- 1 **Electric primary winches:** we're spoiled...but caution, they can cause major damage. We watch children closely. For safety, we don't put the sheets through the self-tailers unless we are sailing (so winches can rotate safely).
- 2 **Fenders:** we stow in the *sail locker* forward.
- 3 **Fresh Water:** We now get "bottled water" quality with the built-in carbon filter on the cold water line in the galley. Tanktender gauge opposite galley—see #25 below for important protection. One tank, 450 liters (120 gallons). Galley foot pump is salt water when seacock opened (flip valve below sink for fresh).
- 4 **Bow thruster:** activated by pushing joystick to port while holding down red button. *Overheat shutdown after 45 seconds use.* Separate battery charged only on shorepower. Refer to Section 9 for details.
- 5 **Backstay adjuster:** "10" for winds above 10 knots; "20" for winds above 20 knots apparent. Never exceed red tape on hydraulic shaft.
- 6 **Max Prop:** After raising sails and killing engine by pressing black button near the key, we slip into reverse for a second to stop propeller rotation. This allows blades to feather. Then back to neutral.
- 7 **Prop Walk:** almost nonexistent. Backs straight.
- 8 **Fuel:** With ignition on, press down on the toggle next to the fuel gauge to read fuel level. Starboard fill cap. Do not fill the port side fuel tank.
- 9 **Heads and holding tanks:** Electric fresh water toilets; after liquid use, we push lower toggle: "drain" then "fill", then "drain" to refresh. For solids push "fill" before above. Holding tanks are gravity drain, valves under sinks. Please...do NOT overfill. Seacocks closed in harbors/coves please; USCG regs say closed in all US waters.
- 10 **Throttle:** neutral is at 10:30, in line with the red arrow. Straight up engages reverse.
- 11 **Table leaves in main salon:** We remind ourselves to *pull out recessed supports* before folding down table leaves or table will be permanently damaged. Please see photos at end of these Notes.
- 12 **Sleeping in Fwd Stateroom?** Avoid condensation drips. Crack hatches above you at night.
- 13 **Draft:** Please note our draft is a deep 6'7" and the rocks are hard. Very hard.



## 3 Emergency/Safety Equipment

You are not likely to need many of these items, but you should know their locations.

- 1 **First Aid Kit:** In cabinet above nav seat.
- 2 **3 fire extinguishers:** under nav station seat; in cabinet above nav seat; in galley under the counter in the forward cabinet.

- 3 **Inflatable PFDs (6)**. 2 in each cabin hanging locker. NSO: please check for “green” visible at bottom of clear canister before each cruise. That verifies the auto-inflate function when immersed. **We wear PFDs at all times when underway.**
- 4 **Fog horn, 3 emergency flares**. Under nav seat.
- 5 **Emergency bilge pump (manual)**. Handle in clips underside of starboard helm seat. Note: if water rises above floorboards, can use shower sump pumps also in emergency.
- 6 **Emergency tiller**. Long curved pipe in port cockpit locker.
- 7 **Lifesling**, to right of starboard helm on stern pulpit. Please review the illustrations on the face of the small plastic case for procedures. The lanyard is secured to the boat so that tossing the floating harness allows it to tow behind the boat like a ski tow rope. Circling the person overboard will draw the recovery line near them. Engine off when bringing the victim aboard!
- 8 **Throw bag**: 75’ of line in a small yellow and black bag hanging from the port side of the stern pulpit. Useful when you have immediately hove-to and the victim is close to the boat. One end is tied to the rail; the other end is tied inside the bag. Unclip the bag from the rail and toss the bag towards the victim. The line will pay out from the bag
- 9 **VHF**, VHF at nav station & at helm. Portable VHF at nav station for dinghy.
- 10 **Cockpit cushions**. In starboard cockpit locker. In case of COB, throw anything that floats, quickly.
- 11 **Flashlights (2)**. In clips either side of companionway steps.

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

Through-hull locations fore to aft:

- 1 Forward head, under sink: 1) anchor wash intake, 2) holding tank drain (closed in US waters; shallow bays/marinas), 3) sink drain.
- 2 Forward cabin, under aft floorboards, centerline: transducers for depthsounder and knotmeter.
- 3 Galley, port side, under sink: 1) galley sink drain, 2) salt water seacock (Closed. Open only if rinsing dishes with salt water/foot pump).
- 4 Aft head, under sink: 1) raw water intake (closed, not used), 2) holding tank drain (closed in US waters; shallow bays/marinas), 3) sink drain.
- 5 Engine compartment, aft: 1) engine raw water (front of engine, port side, ), 2) propeller shaft.

## 4 Anchors and Windlass

### Highlights

- Please be careful of fingers and feet around the windlass!
- Oversized 66# Bruce primary, 210' chain, 2' yellow line every 25', 2 pieces at 100' and 200'
- Fortress secondary in fwd sail locker, 30' chain/130' line
- Salt water anchor washdown
- Snubber always hooked unless chain is moving
- Chain can build into mountain in chain locker when retrieving
- 600' polypropylene stern tie line in starboard cockpit locker

### Details

Main anchor – 66# Bruce mounted on the bow, with 250' 5/8" chain marked with 2' yellow polypropylene line woven into chain links each 25'. Double 2' yellow lines at 100' and 200'.

Wash down pump, circuit breaker on electrical panel (turn off breaker after anchor nested or it may burn out).

Snubber - We use light snubber employed in photo for both nested anchor underway and for overnight if light predicted breeze. If 15+ winds forecast, we use 10' heavy snubber shown coiled.

Secondary – Heavy duty aluminum (for weight) Fortress anchor stowed in the sail locker forward with 30' 3/8" chain and 130' rode in separate bag.

### To Deploy Anchor:

- 1 – We check tide tables to determine current water level and amount of drop while anchored.
- 2 – Weather (ch 4, "Northern Inland Waters") helps select an anchorage.
- 3 – The windlass breaker is below the bottom companionway step.
- 4 – Normal for the islands is a 4 to 1 scope, bow to bottom (add 5 feet to depthsounder reading: 4' freeboard and 1' for transducer below waterline) . In San Juans, anchorages are often about 25' bow to bottom, deploying about 100' chain—hence the double marker at 100'.
- 5 – To avoid hitting the hull we push the anchor forward. keeping the shank *level* before gradually allowing the shank to rise as we ease it forward slowly into the hanging position (no swing!).
- 6 – With one fluid motion we lower to approximately the number of feet on the depthsounder so the anchor is near the bottom by depressing the down switch.
- 7 – A signal to the helmsman prompts reverse at idle speed while deploying rode to desired scope.
- 8 – We then allow the anchor to set and to stop the boat while it continues in reverse, idle speed. We then line up objects on shore to determine if we are holding, staying in reverse at idle for about one minute.
- 9 - Finally, we reset the snubber. As noted, if zero to light winds, we use light snubber and tie to windlass. If heavier winds, the heavier one [the loop goes over the port deck cleat (not the cleat on windlass), then lead under roller furling line and over vacant port anchor roller.] Then ease the windlass so it is not under strain.



If stronger winds are forecast, we test with RPM at half projected windspeed (1,000 rpm for winds to 20 knots; 1,500 rpm for 30 knots, etc), *after* setting snubber. (We check movement shoreside, not the significant prop current going by the chain.)

10 - In storm conditions (or storm forecast), you can increase scope if adequate room to leeward.

11 – The secondary anchor is available for additional holding power if storm is anticipated, but best set before the storm hits.

12 – If anchored in a small cove, you may wish to deploy a line ashore. 600' floating polypropylene on reel resides in a cockpit locker. Open transom doors; use the mop handle as an axle through the reel; set mop handle on helm seats. Deploy the line with the dinghy while the spool unwinds. If sufficient length, bring the line around a secure shore object and back to the boat to a transom cleat for ease of retrieval. Note that over time, tree bark can be damaged and trees killed from friction of retrieval of stern tie lines. Dead trees and rocks are preferred. Some anchorages have sturdy stern tie pins. The Waggoner guide has these marked on their maps of anchorages.

#### To retrieve the anchor:

1 – The “anchor wash” circuit breaker is at the nav station.

2 - Start engine, given that the windlass draws from the engine start battery.

3 – Depress port “up” switch, assuring the chain is vertical during retrieval—this avoids either towing the boat or dragging the chain against the hull. Into a breeze, we engage forward gear as needed, but exercise care that we don't overstand and drag the chain against the hull.

4 – As needed, we clean the chain with the salt water pressure hose during retrieval (run hose outboard of right foot so that it doesn't get caught in windlass).

5 – A mountain under the windlass can jam it and in rare cases cause a wild gravity runout of rode. If that happens, stand clear for safety. We avoid that chain “mountain” by using the boat hook to “lift” the chain forward in the well as it is retrieved. We grab the chain with the boat hook and pull it forward as another crew feeds it by pressing the "up" switch, 2'-3' at a time. Important for the initial chain retrieved. Last 50' can stack under windlass ok.

6 – As the length of rode remaining approaches the water depth, the sound of windlass laboring alerts us to immediately stop. Sometimes a brief pause will cause the anchor to break free, given the 90 degree angle of pull. A brief tap on the button, if laboring, says to break out the anchor with the engine in idle forward, not with the windlass.

7 - To nest the anchor without chipping the hull, the anchor may need to be swiveled. We use the windlass to bring the anchor shank up and over the bow roller in one continuous motion, then nest the anchor by hand.

8 - After nesting, with a slight *slack in the chain*; we secure the anchor once again with the light snubber on the windlass-mounted cleat. As noted, the chain is only “unsnubbed” when it is moving in or out.

9– Reminder: cover the windlass switches *before* closing the anchor locker lid.

10 – Ah! Turn off the “anchor wash” circuit breaker at the nav station to avoid burning out the pump! (windlass breaker normally remains "on" unless there are mischievous kids aboard. Good in case of emergency deployment.)

## 5 Barbecue

### Highlights

- **Yellow handle in-line valve in propane locker**
- **Please clean grill when finished**

### Details

The propane-fired stainless steel BBQ is mounted on the port stern rail and permanently connected to the dual propane tanks below. To use the BBQ propane solenoid in the salon must be on. We open the yellow handled in-line valve in the propane locker. Open the BBQ lid and use the lighting stick (from the galley) to ignite while pushing down on the regulator control. Please find the BBQ cleaning brush attached with a SS lanyard for convenient cleaning when the BBQ cools. We have found that unless we *turn off* the yellow handled in line valve in the propane locker when finished, it *may drain out* all the propane if the solenoid switch is left on! P.S. Wind isn't a friend of the BBQ.

## 6 Batteries/Charging/Inverter

### Highlights

- No need to touch battery switches. All automatically charged with combiner
- Engine start – Bank #1
- House batteries – Bank #2, has 350 usable amp hours (Ah)
- Average consumption, engine shutdown until next morning: 100 Ah
- Capacity remaining measured in Ah used (-350 max) and large red readout of house bank volts (12.2v minimum).
- Magnum controls can be used but Heart Interface monitor display is clearer.

### Details

– We check both Ah (amp hours) used and the voltmeter before retiring for the night, then check both again on engine startup next day to assure we are charging properly. The system charges the house bank first, then the start bank, using a combiner. So you can just leave the switches alone, except to combine for emergency engine start.

[For reference only, battery switches are in the port aft stateroom, below the forward edge of the cushion. The starboard switch (inboard) should be on #1 (*engine bank*) at all times. - The port switch controls bank #2 (630 amp hour *house bank*—50% “usable”) with the arrow pointed *down* to “on”. The “both” position on the starboard switch is the emergency crossover should you ever need the house bank to fire the engine. Again, it should normally remain in the “#1” position (arrow to starboard). Caution: we are careful when we have children aboard to **not** allow them to play with the switches while the engine is operating. The alternator diodes could be destroyed.]

- The engine’s high output alternator (170 amp output) and smart regulator deliver maximum battery recharge, while separating the “draw” so that the engine start battery is never drawn down by house loads. However, the regulator will still “tamp down” alternator output to avoid boiling out the batteries. Thus, it is not possible to fully top off batteries from the engine alone. The engine just doesn't run long enough. If the “Ah consumed” stays between -100 and -200, we try to top off overnight on shorepower. Hint: one mid-week overnight on shorepower helps top off the batteries, especially if we've had a few days of good sailing.

Engine start battery:

One Group 31 battery is located just aft of the battery switches in the port aft stateroom. This compartment also contains the 2000 watt Magnum battery charger/inverter.

### House Bank:

The battery bank is located under the floorboards at the foot of the companionway stairs.

The batteries can be charged by:

- a running the engine
- b shorepower (push the “charge” button on the Magnum panel at the Nav Station if it doesn’t do so automatically.) When charging, volts should show 13+.



### Electrical Monitors:

1 – Voltmeter/alarm: large red number readout located upper left at the nav station displays voltage in the house bank. It should remain at 12.2+ volts when resting.

Heavy draw will drop voltage temporarily. However, to protect the batteries, if voltage drops below 12.2v for 20 seconds, an alarm will sound. You can temporarily mute the alarm, but the only way to turn off the alarm permanently is to start the engine or charge via shorepower.

2 - The Heart Link monitor shows how many of your 300 usable amp hours (630 Ah total, 50% usable without damaging batteries) have been consumed. Press “A Hrs” (Amp hours) button and #2 (house). If you near -300 hours on the house bank (#2), please recharge the batteries with one of the above methods. Drawdown of more than 300 amp hours can permanently damage these top-of-the-line 10-year AGM batteries. Thank you! To monitor the current rate of charge or discharge, press the “Amps” button.



The Inverter draws from the house bank to provide 110v power for the microwave (we are careful to limit the microwave to reheating, not cooking), outlets, TV and stereo. To check if you have AC, see if digits show at the microwave display. If necessary, press “Inverter”, the lower left button on the Magnum display at the nav station. Press twice: first time to wake it up, second time to execute. The Magnum's 2,000 watts is sufficient for the stereo, TV, DVD, hair dryers, the microwave, and other electrical devices, but *not* simultaneously. The

total load cannot exceed 2,000 watts. In particular, we turn off all other 110v devices before using the microwave. Remember to turn on the “AC outlets” circuit breaker at the starboard side of the nav station. To avoid battery damage, the inverter will shut itself down if the house battery voltage drops below 12.1 volts.

## 7 Berths and Bedding

Each berth has a “breathing barrier” under the cushions to dissipate body and boat moisture. (No need to raise the cushions for airing each morning.)

- For added comfort in all staterooms, we have added 3 inches of top quality cool “memory foam” topper to the extra thick boat mattress, with a wrap-around mattress pad to secure it all.
- Finally, each berth has a comforter. SJS provides 2 sheets and pillow cases for each berth.
- An adult can also sleep on the settee, and a child on the island settee. The table does not convert to a berth.
- Berth measurements are under Boat Specifications above.

## 8 Bilge Pumps

### Highlights

- **Emergency Hand Pump:** starboard helm seat
- **Electric Bilge Pump:** Under center bench seat
- **Secondary Electric Bilge Pump:** Under center bench seat
- **Sail Locker Pump:** under bow thruster motor

### Details

- 1 Emergency Hand Bilge Pump – This hand operated pump is located at the starboard helm station. The bilge pump handle is in clips under the starboard helm seat.
- 2 Electric Bilge Pump – The automatic float switch is located under the center bench seat, forward end. Note: the circuit breaker labeled “Bilge pump” *must be “on” at all times* for the float switch to work (marked by “double green” dots). Breaker is protected by a switch guard.
- 3 Secondary Electric Bilge Pump – This is a high-capacity pump located under the center bench seat, with the float switch higher than the primary pump’s float switch. It is wired directly to the house battery, so it doesn’t have a circuit breaker on the DC panel. Its float switch is above the main pump’s float switch, so it will activate only if the main pump is inoperative or is unable to empty the bilge.
- 4 Sail Locker Bilge Pump - A fourth bilge pump with float switch is under the bow thruster motor and tube in the bottom of the sail locker. It is hard wired and pumps into the anchor well. There is a switch in the anchor locker controlling this pump. Normally it is in the auto position but the pump can be activated manually with this switch. Please let us know if you notice water coming out the anchor well drain to give us early warning of a potential problem in this watertight locker.

The dripless PSS engine shaft seal helps reduce bilge water.

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

## 9 Bow Thruster

### Highlights

- Activate by holding joystick to port while depressing red button.
- Use minimally.
- Battery charged only on shorepower.

### Details

The 7.5hp Maxpower bow thruster sounds a beep and shows a green light at the center of the red button to tell you it's activated.

It shuts itself off after 12 minutes of non-use. Just before shutdown, you will hear 5 beeps; a few seconds later you will hear another series of 5 beeps, followed by a long beep. It's now off. It can be turned off manually by holding the joystick to starboard while pressing the red button. *Caution: expect automatic shutdown from overheat after 45 seconds cumulative use during a short period of time.* Note: overuse will deplete its battery, which is *only recharged on shorepower*. We seldom use the thruster...but always have it activated in a marina in case we need it. There is no circuit breaker for the bow thruster. There are in-line fuses on the electric bow thruster motor and in the port aft stateroom (for the bow thruster battery charger). Spare fuses are attached, but they are seldom if ever needed.



*Caution: the bow thruster is very powerful, designed to push into a 30 knot sidewind. It will rotate the boat on its keel and can swing the stern sharply into the dock. Please position a crew with fender between stern and dock when departing and arriving until you get a feel for it.*

## 10 Cockpit Cushions

Three dark blue foldable canvas "Sport-a-Seat" cushions plus three West Marine equivalents are aboard. (Note: the back of the West Marine cushion has black netting. If you sit on its back, an internal bar may be uncomfortable.) You can either lay them flat like a conventional cockpit cushion, or flip the back up for truly comfortable back support at the helm, in the cockpit, or even for sunning on the foredeck. Lay it flat to activate the ratchet; squeeze ends toward one another to release the ratchet. At night, we tuck them under the dodger, being careful not to scratch the dodger glass. This avoids dew-soaked cushions come morning!

There is a blue cushion stored in the starboard cockpit locker, which is useful for sitting at the helm and also as floatation in a crew overboard situation.

## 11 Dinghy and Outboard

### Highlights

- 10' aluminum hulled dinghy, 2.3 HP Honda on davit
- tow 6' off stern, place loop over port aft cleat; tie off bitter end
- please don't tow with OB, or leave on overnight—may flip

### Details

The custom chrome block and tackle outboard davit at the starboard helm makes transfer on and off the dinghy simple and relatively strain-free. Or, just lift it into place by hand.

We have learned these precautions, please:

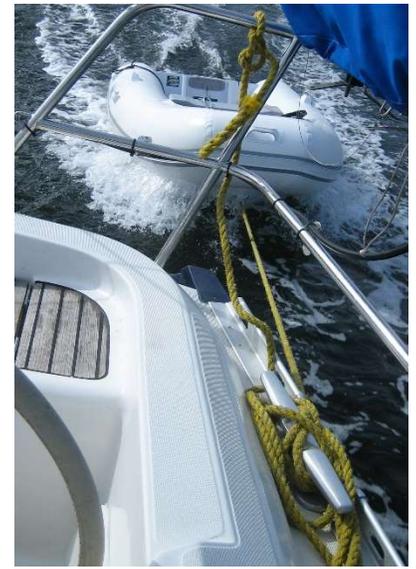
1 – *Never tow the dinghy with the outboard on the dinghy, or overnight.* Always transfer the outboard to the sailboat transom. It could flip and swim, costing you an outboard.

2 – The 2.3hp outboard takes straight gasoline—no 2 cycle oil. The spare tank is topped for you (with an air gap for heat expansion) and we will top it off when you return the boat.

The 30' polypropylene dinghy painter floats. Nevertheless, we suggest that you tow the dinghy about 6 feet off the *port quarter, away from the starboard engine exhaust* (to avoid any sooting of the dinghy), with the painter **not** on the blue paint, but led **outboard at the cleat**, as shown. We have put a loop in the painter so you can just drop the loop over the cleat. If we use the cabin heater, we lift the painter so it rests on the end of the rail. This avoids the heater exhaust (also on port quarter). *It melts painters!*

The 6' scope also avoids wrapping the painter around the propeller shaft when in reverse! Plus, underway the bow is raised slightly, reducing drag, so you sail faster.

Dinghy painters inexplicably come loose (and dinghies disappear), so we suggest you tie the bitter end to the rail as shown.



## 12 Dodger and Bimini

### Highlights

- bimini-dodger insert zips in, if desired.
- Hint: if we get early morning dew fogging our dodger glass, or salt crystals from spray, we rinse off with a pan of fresh water from the galley. *We avoid wiping.* By the way, if you or your guests use *aerosol sunscreen, please apply well away* from the dodger. Sunscreen will destroy the glass. (San Juan Sailing replaced two panels destroyed by sunscreen.)
- If the dodger glass is fogged up with condensation in the morning, please clear it with the squeegee located in the port cockpit locker before getting underway.
- To deploy the bimini, assure the boom is raised (mainsail down). Move the traveler all the way to port or starboard. Unclip the two aft legs from the “bimini stowed” position. Flip bimini forward. Secure the

legs into the “bimini employed” position. Then clip the adjustable straps used to wrap the bimini when stowed, onto the aft bar of the dodger and tension as desired.

- If you wish to use the rain “insert” between the bimini and the dodger (gives full coverage over the cockpit), zip the insert in *before* attaching the bimini’s two aft legs or tensioning the straps. Here are the steps we use:

1 – Remove bimini cover and adjustable straps; stow cover in starboard locker.

2 – Unclip the aft legs of the bimini by pulling the pins. Then re-insert pins for loss prevention. Carefully pull the leading edge of the bimini forward.

If zipping in the “rain insert” now is the time. If not, go to step #5:

3 – Zip in the leading edge of the insert to the aft edge of the dodger. The insert should be rolled and is normally stowed on the starboard “ledge” or starboard hanging locker of the forward stateroom.

4 – Zip the aft edge of the insert to the forward edge of the bimini.

5 – Secure the aft legs of the bimini to the “bimini employed” position on the stern pulpit; insert attached pins.

6 – Finally, tension the bimini by clipping its two adjustable straps (that wrapped around the bimini when stowed) around the aft bar of the dodger and tension as desired.

To stow: reverse the steps. Thanks for your good care.

## 13 Electrical Panel

- Breaker/Switches flagged with color dots per legend photo on right.
- AC panel is just to the right of the above 12v panel
- AC main breaker is under starboard helm seat, in case it trips (very rare)



## 14 Electronics

### Autopilot:

#### Highlights

- Tap “pilot” button (lower middle) to activate
- Tap red to nudge to port, green to starboard
- Tap “off” (lower left) to deactivate

#### Details

The ComNav 1420 autopilot is either on or off, depending upon which of the lower left buttons, “pilot” or “off” is pushed.

“Pilot” will engage about 2 seconds after pushing the button.

Each tap of the red or green button will adjust heading a few degrees.

Depressing and holding either button will cause an approximate 30 degree *temporary* course change designed to avoid debris. After release, the autopilot will return to the earlier heading.

Note: wheel frozen? Tap “off” to free the wheel.



**Chartplotter:****Highlights**

- Raymarine c125 12" color chart plotter displays chart, radar, SOG, COG and other relevant cruising data.
- Customized to swivel and tilt for ease of reading.
- Nearly all controls are on the upper right: the joystick, surrounding doughnut and menu button. Push in the joystick to select a menu item or AIS target.

**Startup and Shutdown**

- At nav station, flip "chart plotter" circuit breaker switch "on".
- At helm unit, press "Power". The unit will beep to acknowledge.
- Press in joystick (upper right) to accept the liability disclaimer.
- Select one of the display options (chart, radar, radar overlay, split screen) by moving the display selection left/right/up/down with the joystick; press when the desired display is selected.
- Shut it down at the helm before turning off the circuit breaker at the nav station.

**Commonly used Chart Plotter Selections**

- **Finding the Navigational Chart:** Press the "Home" button at the upper right. Select "Chart".
- **Zooming in and out:** Press the "+" or "-" button, or rotate the doughnut.
- **Returning the screen to the vessel's current location:** Press the "Menu" button, then "Find Ship" in the popup menu. Note that this option appears in the menu only if the vessel is off-screen.
- **Clearing Pre-existing Waypoints, Routes and Tracks:**
  - **Waypoints:** On the Home screen, select "My Data", then "Import/Export", then "Erase From System", then "Erase Waypoints From System", then "Erase All". A Confirm dialog is displayed; select Yes to confirm.
  - **Routes:** Follow the steps for deleting waypoints, but select "Erase Routes From System" instead of "Erase Waypoints From System".
  - **Tracks:** Follow the steps for deleting waypoints, but select "Erase Tracks From System" instead of "Erase Waypoints From System".
- **Chart Orientation:** Press the "Menu" button, rotate the doughnut to "Presentation" and select the desired orientation.
- **Display Brightness:** Press the "Power" button once, then adjust brightness using the doughnut.
- **Course Over Ground (COG) Vector/Line:** Press "Menu", then "Presentation", then "Vectors", then "COG Vector" or "Heading Vector" and on or off as desired. Note: We run with the COG vector on and the

Heading Vector off, to avoid confusion. It's more important to know where we're going than where we're pointed!

- **Displaying and Using a Split Screen:** Select a split screen display from the Home screen; chart and radar, chart and chart, etc. One pane at a time is active. Pan and zoom affect the active pane. The switch active pane button on the left side of the second row of buttons from the bottom switches between panes.
- **Radar Overlay:** The unit is defaulted to overlay radar on the chart display when the radar is in transmit mode. The Radar circuit breaker must be on to use the radar.
- **AIS Overlay and Targets:** AIS targets display automatically on the chart and radar screens. To select an AIS target and get detailed course, SOG, and time and distance of closest approach, use the joystick to position the cursor over the desired target.

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

### Radar:

#### Highlights

- 4KW digital radar overlays as purple onto chart display

#### Details

1 – "RADAR" circuit breaker is on electrical panel.

2 – At the helm, push the "home" button, rotate doughnut to "RADAR" from the menu, press toggle in to select. Allow warm-up.

3 – Rotate doughnut to switch from "Standby" to "Transmit".

4 – From "home" you can choose to show radar only, radar and chart plotter side by side, or chart plotter with magenta radar overlay. We normally leave the unit preset to magenta radar overlay when the radar is activated; sometimes we find it beneficial to show a side-by-side display for greater radar clarity.

We do not cruise at night or in fog. The radar is especially useful should one be *unpredictably* enveloped in fog. If there is fog either visible or in the forecast, we stay at our mooring until it lifts (normally before noon). Safety is paramount.

**A.I.S.** (active Automatic Identification System):

#### Highlights

- shows AIS equipped vessels as triangles on the chart plotter, especially freighters and tugs with tows.

#### Details

The triangle points the direction other vessels are moving. If you move the cursor over the triangle the system will give you additional information (name, size, speed, etc.) by rotating the doughnut to the right to display vessel details. The system also transmits this same type of information about *Esprit* to other vessels with A.I.S. It comes on automatically when the chart plotter is turned on.

**Depthsounders:****Highlights**

- Raymarine i50 depthsounder with selectable Tri-data readouts at the starboard helm, port helm, nav station and master stateroom

**Details**

The sounder is calibrated in feet and is set to read from the transducer, which is about a foot below water level. If you assume the reading is from the top of the water, you will have a very modest 1 foot safety margin. We get nervous in anything less than 30 feet underway and 15 feet in an anchorage, given that we draw 6'7"!! The two biggest hazards to boats in our waters are rocks and docks.



The Raymarine depthsounder is powered through the "Autopilot" circuit breaker

Please note that depthsounders sometimes give false readings in really deep water. In the San Juans, 400'-600' are common depths in some channels and you may see false readings as the sensitivity on the transducer increases in an effort to give some reading, often from changes in water density, salinity, or underwater debris.

Due to those changes in depth readings (especially in very deep water), we do *not* set depth alarms, but always know our position on the chart.

Please note: You *cannot* rely on the depthsounder to avoid rocks! It is possible to go from 300' to on the rocks in less than 30 seconds under sail in some areas! The answer is simple: we always plan our route in the chartbook and track our position on the chartplotter. Rocks are clearly marked. Warning: rocks disappear when you zoom out!

**Knotmeter:**

You have two speed sources: speed through the water (registered by the Raymarine i60 at the aft end of the cockpit table), and speed over ground (registered by the GPS on the chart plotter, which takes current into account).

The knotmeter reads slightly faster on one tack than the other. It reads about 1-2 knots slow. (Yes, we've checked the transducer but it seems incorrecable software is the issue. So we normally display SOG.)

**VHF radios:****Highlights**

- **ICOM IC-504 VHF radio at the nav station.** This must be turned on first.
- **ICOM RAM mic at the starboard helm.** The RAM mike enables us to hear, tune, and transmit from the cockpit.
- **Portable VHF** on charging stand at the nav station for use when the dinghy leaves the cove.
- **Always monitor Ch 16.** As the nearest vessel to an emergency, you may well be able to save a life or a boat.

- **Dual watch.** You can set up “dual watch” to monitor two channels at once. Useful when sailing in a flotilla!

### Details

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

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

To set up dual watch:

- Turn off power to the radio.
- While pressing and holding the “16\*9” button, turn power to the radio on. This enters “set” mode.
- Rotate the dial to scroll through the set mode items displayed. With the arrow pointing at “Dual/Tri”, push the dial to select dual mode.
- Rotate the dial to select the desired second channel, eg 68.
- Push the “CH/WX” button for 1 second. “DUAL 16” will appear in the radio display.
- To cancel dual watch, push the “CH/WX” button again.
- Dual watch settings are kept when the radio is powered off and on.

Miscellaneous VHF radio functions:

- To silence a DSC alarm, press the “CLR” button.
- To change from high to low transmit power or vice versa, push the “H/L” button. “25W” will be displayed when the radio is in high transmit power mode; “1W” will be displayed in low transmit power mode.
- To get to channel 16 quickly, press the “16-9” button.
- Volume and squelch are controlled by the Volume and Squelch knobs.
- To change between US, Canadian and International channel groups, push and hold the “H/L” button and push the “CH/WX” button to select a channel group. “USA”, “CAN” or “INT” will be appear in the display. Under normal circumstances there is no reason to select anything other than the USA channel group – USA channels work fine in Canada.
- The radio can be set up to scan a set of channels. The set of channels to be scanned are called TAG channels.
  - To clear all TAG channels, push and hold the “H/L” button while pushing and holding the “SCAN” button for 3 seconds. TAG channels are clear when the long beep changes to 2 short beeps.
  - To set a TAG channel, select the channel to be set and push the “SCAN” button for 1 second. “TAG” appears in the display.
  - To clear a TAG channel select the channel to be set and push the “SCAN” button for 1 second. “TAG” disappears from the display.
  - To start a scan of the TAG channels, press the “SCAN” button. When a signal is detected on a TAG channel, the scan pauses until the signal disappears.

## 15 Engine

### Highlights

- Yanmar 88hp turbocharged 4 cylinder diesel, with PYI dripless shaft seal and 3 blade feathering Max-prop.
- Bottom 2 companionway steps lift out for engine “lookover”. This “before engine start” daily check shows us in one quick view a) any black powder belt wear, b) loose belt, c) oil in bilge, d) eelgrass in strainer, or e) coolant spillage.
- Neutral is 30 degrees forward, in line with red arrow
- Avoid excessive idling
- 2000 rpm is economy cruise, the “sweet spot” (green dot on tachometer)
- 2300 rpm is fast cruise
- 2800 rpm is emergency fast cruise

### Details

Raw water strainer is above the water line, so no need to close the raw water intake seacock when opening the strainer. No need to open or clean unless engine overheats. If overheat and cleaned, strainer bowl should refill itself. If not, you may need to “blow out” the hose/seacock with the dinghy foot pump, very forcefully. When replacing the lid, please avoid over-tightening.

Oil dipstick access is via a panel in the starboard aft cabin. The engine is not known to use oil; nevertheless, a spare quart lies just below the dipstick in the engine compartment. Mechanics check the oil levels weekly.

### To Start:

- 1 Neutral has the handle forward, in line with the red arrow. In cold weather, we depress the red button at the base of the throttle, and push the throttle forward until it is even with the Jeanneau registration plate, to accelerate slightly for starting. This disengages the transmission for cold weather 1100 rpm warm-up.  
Gentle reminder: *straight up on the single lever throttle/gear shift engages reverse.*
- 2 Listen/look for water coming from aft starboard end of hull.
- 3 Most engines idle too long, causing carbon buildup. So if in a marina, we start the engine just before loosing lines. Same protocol if hoisting anchor or untying from a buoy—minimal idle. If starting after sailing, we allow one minute at 1100 rpm, another minute or so in gear at 1500 before resuming cruising speed.

### Running:

- 1400 rpm is about 4 knots—marina speed
- 1700 RPM is about 6.5 knots – very comfortable and quiet, < 1 GPH.
- 2000 rpm is economy cruise, about 7 knots, approx. 1 gph, range: 50 hours, 350 NM
- 2300 rpm is fast cruise, about 7.5 knots, approx 1.4 gph, range: 35 hours, 265 NM
- 2800 rpm is emergency max cruise, for short burst only.

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

Shutdown:

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

Engine overheat:

Normal engine temp is 180 degrees, straight up at the helm temperature gauge. If the needle climbs, or the alarm sounds, or steam comes out the exhaust, please briefly check the amount of water coming out the exhaust. If it is little or none, the most likely cause is eelgrass plugging the raw water strainer, located at the forward port end of the engine, which you saw on your Daily Engine Look-over.

If the exhaust manifold temperature alarm sounds, please shut down the engine immediately to avoid melting the raw water impeller blades. The monitor displays a green light at the nav station when temperatures are normal.

As an added precaution, a grate below the hull deters eel-grass and other debris so eelgrass is seldom a problem. (Note: raw water impellers are replaced annually as part of preventive maintenance.)

If the engine overheats with adequate water flow out the exhaust, check the coolant level in the engine. Normally, the coolant level in the overflow plastic container is at the "low" level. If below the "low" level, we add coolant from the port cockpit lazarette, but not before.

## 16 Entertainment Systems

**Bose speakers/Satellite radio/Bluetooth.**

Steps to Activate: On the electrical panel, if not already on, we tap "Inverter" twice (Magnum controller, bottom left), turn on "12V Plugs" (DC lower panel) and "stereo" (AC panel). Use the remote to turn on the SONY amplifier. Speaker system A for the Bose speakers in the main salon; speaker system B powers the Bose 150 Environmental speakers in the cockpit, mounted in the support legs of the teak cockpit table. Hint: if the amplifier does not turn on, check the GFI outlet under the aft starboard settee immediately under the stereo cabinet. If there is no little green light on the outlet, it needs to be reset.

Satellite radio: The SiriusXM satellite radio receiver does not have a full-time active subscription but we will activate it for your charter if you would like us to. Please make this request in advance, through San Juan Sailing.

The satellite radio receiver is located at the nav table above the Heart Interface monitor. It is powered by the 12v plug (12v plug circuit breaker must be on).

Press the power button on the SiriuXM receiver, then the “Input 1” on the SONY remote. A playlist of the 145 channels is in the sleeve of the Charter Guest Reference Manual Cover, or on your cell phone. To select a channel, push the appropriate channel numbers or arrow up or down on the SiriusXM receiver.



Bluetooth: Tap “bluetooth pairing” on the remote. This puts the receiver in pairing mode, so that your Bluetooth device can find it. Complete pairing on your device – the receiver identifies itself as “STR-DH190”.

## TV/DVD

The 26 inch HD TV is mounted between the starboard cabinets in the main salon. The DVD player is in the stereo cabinet between the TV and the nav station. Caution: the DVD player takes a few seconds to “think” before responding to your commands. In particular, wait after pushing “open” until the loader ejects. Don’t try to force a DVD into what looks like an open slot. Remotes for each should be stowed in the stereo cabinet. No TV reception in the islands, so the TV is used only with the DVD player.



To operate away from shore power, assure the “Inverter” is on (Magnum controller), and the “AC outlets” circuit breaker is on. The sound routes through the music system by pressing “Input 4” on the amplifier remote control.

## 17 Fuel

### Highlights

- Use only the starboard tank. Fuel fill is starboard aft, near helm.
- To read fuel level, push toggle down on engine control panel at starboard helm
- Do not “top-off” the fuel tank (gauge full only)

### Details

The fuel tank is located under the starboard aft stateroom cushion. Consumption rates are listed under “Engine” above. It holds 53 gallons (200 liters).

Note: the port tank is not used.

Fueling: Fill until the *gauge* definitely reads “full”. *Don't top off. Otherwise, in warm wx the tank may “oil can” and possibly seep fuel out the top gaskets.* Note: due to tank/hull curvature, if the gauge reads  $\frac{3}{4}$ , your tank is about half gone.

The attendant will give you absorbent pads. Before fueling, we build a fuel absorbent dam fore and aft in case of overfill (reaching for the pads after the spill is too late).

We find these guidelines helpful: we don't fill too fast, track how many gallons are in, keep our ear to the fill, and occasionally turn on the key and check fuel level, stopping when the needle definitely shows full.

## 18 Heads and Holding Tanks

### Highlights

- Both toilets are electric fresh water
- Holding tanks are gravity drain
- No Y valves
- There are two gray rocker switches. The switch on top is “flush”. It brings in domestic fresh water and pumps it out simultaneously. The switch on the bottom separates those functions. Depressing one end brings in water, depressing the other end pumps it out. That's the one we normally use
- fresh water minimizes odor buildup



### Details

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

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

Here's what uses least water:

For liquid effluent:

1 – After use, depress the “drain” side of the lower rocker switch to pump out the liquid.

2 - Briefly toggle that rocker switch to “fill” to rinse, then back again to “drain” to pump out.

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

For solid effluent:

- 1 - Depress the “fill” end of the lower rocker switch to bring in a quart or so of fresh water.
- 2 – After use, depress the upper switch, “flush” to evacuate most of the toilet. Then press “fill” and “drain” as above to complete the flush as needed.

Holding Tanks:

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

Please, especially in small coves and marinas, use the holding tanks. We urge you to use shoreside facilities for solid effluent when moored in shallow bays and marinas where solid effluent has a measurable adverse impact...or the holding tank. Be aware that discharge in deep water is permissible in Canadian waters, but USCG regs prohibit such discharge in US waters.

If the holding tanks are overfilled, effluent will overflow through the vents, which gives foul odors and dirties the hull. Depending upon the number and type of flushes above, and the number of people aboard, each holding tank may hold about a day's usage. For efficiency, some people reserve one head for liquid and one for solids.

*Holding Tank gauge:* The “tank tender” gauge is opposite the galley at knee level by the mast step. Always leave the toggle in “clear” for its protection. The Tank B button registers the forward holding tank; Tank C registers the aft holding tank (Tank A is drinking water). With the toggle in the “clear” position, depress Tank B or C buttons and pump the little pump handle vigorously to clear the air tube. Then toggle to the left to “read”, depress and hold the Tank B or Tank C buttons as you *gently and slowly* give the little pump rod a little shove. Where it settles is how full the tank is. The yellow dot shows full for each holding tank. (The green dot shows the water tank full at about 12 o'clock.) **Caution:** if you push too hard on the pump rod while the toggle is in the “read” position, you will “peg” the needle, which can *damage* the Tank Tender. After reading, return the toggle to “clear” to protect the instrument.

## 19 Heater (cabin)

### Highlights

- Not efficient to run all night, noise wakes light sleepers
- auxiliary portable electric for use on shorepower

### Details

The Webasto thermostatically controlled forced air heating system draws from the main diesel fuel tank.

In our waters, we use the heater on cool evenings or to take the chill off in the morning.



The thermostat, black, is at the nav station just above the propane solenoid control, to the right and above your head as you sit. To turn it on, move the slide switch from “Off” to “Heat” The display shows the current air temperature. To adjust the set point, press the up or down buttons. The display will show the new set point for a couple of seconds, then revert to current temperature.

After turning the heater on, it takes a couple of minutes for it to start up. When you hear the fuel pump clicking it’s running. We normally turn off the heater at night, both to sleep cool and to avoid the clicking sound of its electric fuel pump.

The electric space heater is for use while on shore power. It is normally stowed under the starboard settee.

## 20 Propane

### Highlights

- solenoid is at nav station, just below the heater thermostat
- two large aluminum propane tanks
- for safety, we turn off solenoid after stove or BBQ use

### Details

We have two aluminum propane tanks under the port helm seat, vented to the outside for safety. Each tank normally lasts 4 weeks. The San Juan Sailing staff checks these tanks weekly to assure that you don’t run out. If one tank empties, there is a spare for your convenience.

*Troubleshooting:* If the stove won't start, check a) propane tank valve is full open, b) solenoid is on, c) stove knob is first pushed in, then left to the “ignite” position, and after flame shows, held until the thermocouple heats. If the BBQ doesn't start, check a and b above, then check that the regulator is not closed at the BBQ.

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

## 21 Refrigerator and Freezer

### Highlights

- Refrigerator is both top load and front load



- Thermostat in freezer controls temperature in both. Ideal thermostat setting is when the green dot on the control knob (in freezer) points to the yellow dot on the freezer bulkhead...about the 11 o'clock position. Turn right for colder, left to unfreeze the lettuce in the refrigerator 😊
- Circuit breaker is under the bottom step of the companionway
- Check that there is sufficient battery power to operate the refrigeration equipment all night. Usually there is.
- Super insulated for minimal energy consumption
- SJS provides a bag of ice. Also, there are ice cube trays in the cabinet above the freezer.

## 22 Sails and Rigging

### Highlights

- Sails new in 2022
- Carbon fiber mast and boom
- Stainless steel rod rigging
- 5' extra mast height gives larger sail area for light breezes
- See hints for ease of hoist and drop of full battened mainsail.

### Details

She sails best when kept under 20 degrees of heel. The tall rig allows you to sail when others are motoring, but that extra tall rig and extra sail area mean you'll want to reef at about 15 knots true upwind.

### Mainsail:

The fully battened mainsail uses Antal slides.

We have a "stack pack" zipped boom cover and lazy jack system. *No need to adjust the lazy jacks...just unzip and hoist!* Please do not adjust lazy jacks.

To hoist: we release the a) downhaul (we string out in the cockpit to prevent stopper knots), b) mainsheet c) boom vang and d) reef lines. Reef lines should be slack enough but if someone has tightened them with the mainsail down they will need to be free in order for the sail to rise.

Hint: we found the following to be the easiest way to hoist the main:

1. Once daily, we spray the mainsail track and slides with the pink soap mixture in the spray bottle stowed in the port cockpit locker. This helps keep the track and slides clean and, being slippery, makes your job easier. (It has a lot of sail area with the tall mast)

2. We assure that the main halyard always leads outside the tan boom cover on the port side of the mast. No need to unzip the stack pack in front of the mast.
3. Assure that the stack pack is unzipped and the boat is pointed *directly* into the wind (any wind in the sail puts pressure on the slides and increases friction).
4. Pull the main halyard by hand until it becomes too difficult to continue. Take care that the battens don't become fouled in the stack pack lines. Keeping the boat dead upwind helps here.
5. Bring to full hoist with the cockpit halyard winch, or very carefully bend the halyard a half turn around the starboard side of the halyard winch to the port electric primary winch. Take 3 wraps around the electric winch—**but hold it by hand**--never put the halyard in the self-tailer. Just look up and "feel" when the luff is tightened properly. Note: if we don't achieve full hoist, the boom may drag on the dodger or bimini. Note: if using the electric winch, please never let the halyard slip down around the base of the deck halyard winch or it will dislodge the winch from its base!

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

This boat sails best with a foot or so of mainsail luff (though sometimes hard to see with the full battens), and the tell tales flying straight.

Dropping the main is easy with the downhaul. Here is our procedure:

1. String out the halyard on the cockpit sole so it's free to fly.
2. Assure the main is directly into the wind.
3. Push the main halyard sheet stopper all the way forward and let the main drop fast.
4. Assist the drop by pulling on the downhaul if necessary.
5. Moving the traveler a bit to one side makes it easier to stuff excess leech into the canvas stack pack.
6. Zip the top of the stack pack closed. This protects the sail from UV radiation and prolongs its life. Thank You!
7. We leave the halyard attached to the head, and lead to a "bend around" on the starboard shroud to avoid mast chatter. (If motoring in a substantial chop, move the halyard to the boom end (to act as boom lift) and tension to prevent the boom from swinging and possibly causing head injury and/or damaging the dodger bar or the boom itself.)  
There should be no need to adjust the lazy jacks.

#### Reefing:

Two large reefs are pre-rigged.

1. Release the mainsail halyard and let the main drop to just below the level of the reefed clew. This is difficult to see directly because of the stack pack, but you can see the reef grommets when they're above the stack pack. When they disappear you have a couple of feet left to go.
2. Tension the single line reef moderately, then release the mainsheet and boom vang. Now fully tension the reef line until the new clew is close to the boom. Then re-tension the mainsheet and vang. (Using this method raises the boom sufficiently above the dodger.)

Note: tuck the extra mainsail foot if you like, but please don't bother with reef ties, which in our experience easily tear sails.

Genoa:

Please do *not* adjust the luff tension. The primary sheet winches for the 130% genoa (Harken roller furling) are two speed electric Harken 53s. (An inserted winch handle will automatically provide manual override, but will tend to pop out. Yellow top winch handle works best.) Please operate these powerful electric winches with extreme care.

The *inboard button is high speed*. The *outboard button is low speed*.

**NOTE!** For safety, whenever you are not sailing, please *don't* secure the sheets through the self-tailing. Just take two wraps around the winch and let it hang loosely. That way if a child pushes a button, damage is less likely. (To paraphrase the old saying, "loose loops save sloops". 😊)

*These winches have tremendous power and one needs to be watching all lines carefully during their operation.* Keep fingers well away from the drum when trimming. Thank you for your conscientious caution.

Note: the electric winch circuit breakers are in the port aft stateroom, just outboard of the battery switches, in the compartment just under the leading edge of the cushions. If popped, a black lever sticks out at an angle from the top of the circuit breaker. Squeeze the lever back up into the circuit breaker to activate.

There are two vertical black stripes on the foot of the genoa. These indicate the maximum that the sail should be reefed. That is, you can reef up to the point that the aft stripe is at the head stay but no further. The reason is that the foot is reinforced between the tack and the aft stripe. Reefing beyond that stripe will tend to stretch the sail.



The genoa fairleads are adjustable underway with the blue control lines in the cockpit...very handy to move the fairlead forward when sailing off the wind. We position the fairleads about even with the aft end of the nearby small deck hatch for close hauled (see photo), then move them forward (blue lines led aft) as we fall off the wind.

Spinnaker:

If you are *well-experienced* in handling a tri-radial spinnaker and spinnaker pole, you are welcome to use this symmetrical spinnaker in appropriate conditions. It is a *very* large sail suitable for breezes under 15 knots. It is stowed with its lines and snatch block in the sail locker forward of the master stateroom, and accessed through the large foredeck hatch. The pole is stowed mounted on the leading edge of the mast. The spinnaker

is enclosed in a sock with a fiberglass “mouth” for ease of employment and dousing. To jibe, douse the sail, dip the pole, complete the jibe, and open the sock.

As you may know, the spinnaker is the most vulnerable of sails. Thank you for your care!

#### Backstay adjuster:

The carbon fiber rig can be easily tuned with the hydraulic backstay adjuster at the transom. “10” is ideal for winds over 10 knots, “20” for winds over 20 knots. Do not exceed the red tape on the hydraulic shaft (about “25”) or damage can result. Please relax the adjuster after sailing by turning the knurled knob to the left and then back again.

## **23 Showers and Sump Pumps**

### Highlights

- separate shower stall forward has circular rotating shower wall
- aft head shower
- transom shower
- shower sump pump circuit breakers at nav station, switches in showers, no sump or float switches

### Details

Forward circular rotating shower wall protects the head door and paper and towels from shower spray. We find it easiest to rotate by placing one hand under the handles on either end of the curved shower wall. This also helps keep it in the track (top). Toggle operates the sump pump.

The aft shower is incorporated into the aft head. The sink faucet extends to become the shower head. Depress the top of the shower head for spray. Again, toggle operated sump.

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

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

## **24 Spares and Tools**

### Common spares

Location: under aft settee cushion

Contents: oil absorbent pads, fuel filters, oil filter, impeller, etc.

### Heavy Duty spares

Location: under forward stateroom mattress, forward end. Access by removing mattress, then carefully disengaging the forward end of ventilation slats.

Contents: spare float switch, spare electric bilge pump, spare domestic water pressure pump(s), spare engine starter, spare engine alternator, Yanmar tool set, battery jumper cables, bag with spare oil and fuel filters, light bulbs, outboard tools, toilet one-way check valves, spare shower drain pump.

Tools

Tool boxes are under the nav seat. Yanmar unique tools are stored with Heavy Duty Spares.

## 25 Storage

The amount of storage is one of the appealing factors of the Jeanneau 45. We found these of greatest use:

Food:

1. Given the large capacity and the front load feature of the refrigerator, we stow many optional refrigerated items in it.
2. Salon island settee. Located opposite the galley counter, the island settee storage is convenient. There is door access on the port side of the settee, as well as two flanking storage areas on each end accessed by lifting the cushion. (Note: bilge sump is under the forward island settee storage bin.)
3. Mast support enclosure. A two-level custom teak mast support cabinet is ideal for wine and dry snacks and canned goods.
4. Galley bilge areas. Two shallow bilge compartments, both in the main salon, that we call "galley forward", "galley aft" are ideal for things like eggs and "keep cool" vegetables.
5. Under forward settee cushion.
6. Master stateroom under-bed cabinet. The large slide-out drawer under the master stateroom mattress is huge!
7. Behind settee cushions. There is some stowage under the U-shaped settees, behind the settee cushions, and the cabinets above them.
8. Above galley counter cabinets. We store quite a bit of food in the cabinets above the refrigerator and freezer.
9. Table drawers. The teak table has four small drawers convenient for condiments.

*Note:* the wood cutting board should be stowed above the refrigerator and *behind the fiddles* before you heel to starboard. Yes, this is the voice of experience.

Clothes:

Each stateroom has a hanging locker and drawers that we find more than adequate.

Fenders: We store them in the sail locker forward. *Hint:* when lowering them into the locker, droop the fender line over the top rung of the ladder; making for easy retrieval. A fifth blue fender is ideal to protect the stern rail when backed into a slip. There is an orange light "rover" fender that should be in a crew member's hand whenever maneuvering in a harbor. That has saved us several times when "surprises" had the wind drifting us into another boat.

Dock Lines: In the port cockpit locker.

Cooking utensils: In the forward galley under-counter cabinets.

## 26 Stove/Oven and Microwave

**Highlights**

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

**Details**

The four burner gimballed Force 10 propane stove must have the propane solenoid switch on to operate (above and to the right of the nav station).

We suggest that whenever you turn off the stove burner, you shut off the propane solenoid, which, for safety, shuts off the propane flow in the cockpit.

To light a stove burner, *depress* the knob, turn  $\frac{1}{4}$  turn to the left and light with the provided sparker. Note you don't need a flame...just the spark. After ignition, hold for a few seconds to heat the safety "thermocouple", then release. Turn the knob to the *left*, counterclockwise, to go from "high" to "simmer".



To light the oven, set the knob to the desired temperature. Open the oven door. While kneeling, depress the blue cylindrical button on the stove panel. This bypasses the thermocouple and allows propane to flow to the oven burner. Ignite the burner with the sparker. Keep the blue button depressed for about 30 seconds before slowly releasing, watching the pilot to make sure it remains lit.

The microwave is behind teak doors, above the forward end of the galley counter. The inverter must be on, and the "AC outlets" circuit breaker on. Please note that excessive use sucks down the batteries. We find it is best for warm-ups and short term uses, but *not for extended cooking* like bringing a soup supper from cold to hot.

**27 Water****Highlights**

- In line carbon filter yields bottled water quality in galley
- One 120 gallon water tank
- Tank tender water meter opposite galley
- Deck fill is starboard forward

**Details**

The water tank is under the master stateroom bunk.

The "tank tender" gauge opposite the galley is at knee level by the mast step. Always leave the toggle in "clear" for its protection. With the toggle in the "clear" position, pump the plunger vigorously to clear the line.

Then move the toggle to the left to “read”, then depress and hold the “Tank A” button as you *gently and slowly* give the plunger rod a little shove. Where it settles is how full the tank is. The green dot at about 12 o’clock is “full” for the water tank. **Caution:** if you push too hard on the pump rod and “peg” the needle, you can *damage* the tank tender. Again, return the toggle to “clear” to protect the instrument.

Note: the “Tank B” and “Tank C” buttons are holding tank gauges. Full for these is marked in yellow.)

Hot water is produced by two methods:

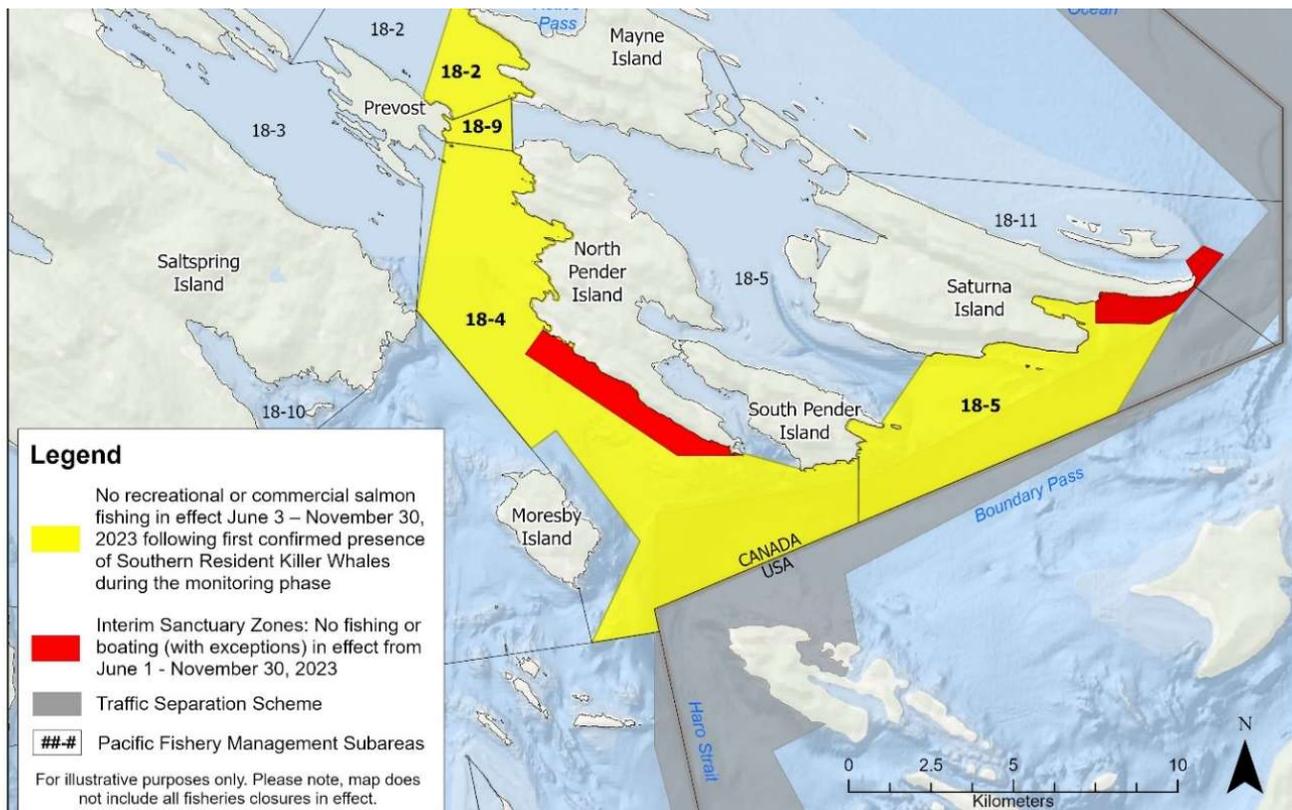
Engine: It takes about an hour under solid load to heat the extra large 12 gallon hot water tank. (Running the engine at idle won’t heat the water.)

Shorepower: If hooked up, turn on the “hot water” circuit breaker on the 110v panel above and to the right of the nav station.

## 28 Being Whale Wise

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 Esprit de Mer. In general, stay at least 400 ft. 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.

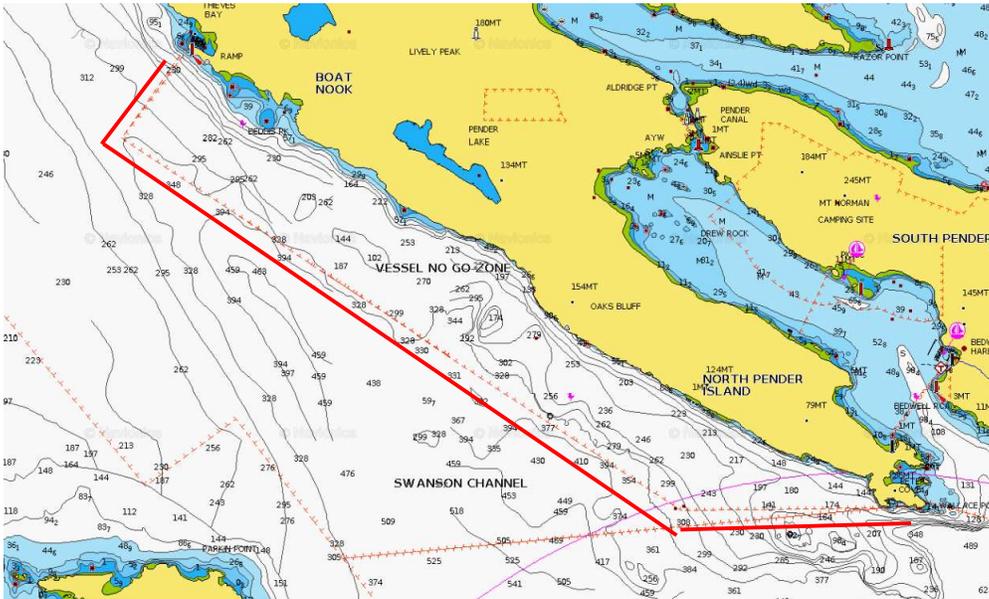
In Canada they have gone a step further by creating some zones where boats are not allowed. This further



improves the environment for the whales. The red areas in the diagram below show these zones.

And here is an example of what they look like on Esprit de Mer'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.



## 29 Appendix 1: Orientation Photos

These are photos that may help orient you to *Esprit de Mer*:

Companionway doors, with flip up canvas flap employed or flipped up



Sequence showing how to expand main salon table:



Sling Placement: There are small placards on the port side toe rail indicating correct placement of the slings should for any reason Esprit need to be hauled out. But in case those can't be found for some reason, here is a photo showing correct sling positioning. (This photo was taken upon annual haulout for preventative maintenance)

