

Owner's Notes
Cool Runnings
Hunter 33

Dear Friends,

Welcome aboard *Cool Runnings*, which means “safe journey.” We placed *Cool Runnings* in charter with San Juan Sailing after enjoying her all to ourselves for four years in the Pacific Northwest. Before that, we chartered sailboats from San Juan Sailing, so we have been in your shoes as a charter guest.

Cool Runnings is a Hunter 33, one of the most popular mid-sized Hunter models, and we think she is very well-suited for cruising adventures in the Pacific Northwest. We love her easy handling under power or sail, the comfortable cockpit with a cockpit arch, and the stern rail seats. Down below, we love the extra long berths in the aft and forward cabins and the spacious convertible dinette in the light and airy main cabin.

We've made many wonderful cruising memories in the San Juan Islands and points north...our hope is that you enjoy *Cool Runnings* as much as we do. If something comes up, please feel free to give us a call at (360) 298-8764.

If you would like to suggest anything that would make her more enjoyable for you, please let us know through San Juan Sailing. We've tried not to overlook any detail in our effort to equip her for comfortable, fun and safe travels.

We wish you wonderful memories and “Cool Runnings” on your voyage. Thank you for being our guests!

Sincerely,

John and JoAnn Satzinger
Cool Runnings

Cool Runnings Boat Specifications

LOA:	33' 6"	Displacement:	10,400 lbs.	Fuel tank:	25 Gallons
LWL:	29' 5"	Ballast:	3,459 lbs.	Water tank:	50 Gallons
Beam:	11' 6"	Draft:	5' 6"	Holding tank:	25 Gallons
Year built:	2007				

Engine: Yanmar 3YM30 29 hp with 3 blade fixed prop

Sails: UK Furling main and furling jib

Electronics: Raymarine a75 touchscreen/pinch zoom chartplotter with radar, VHF, wind, depth, VHF radio with second mic at helm, and Fusion stereo with AM, FM, SiriusXM, USB input for iPod/iPhone, and mini jack aux input

Staterooms: 2 doubles plus dinette

Aft berth	60" wide, 84" to 72" long
Forward berth	84" wide at head, 82" long at centerline
Convertible Dinette	42" wide and 90" long

Headroom: 6' 2"

Heads: one with manual toilet, sink, and shower (plus cockpit shower)

Refrigerator: inside 13" by 15" and 12" high (one shelf)
Plus shelf on door large enough for two ½ gallon milk or juice cartons

Freezer: 10" by 8" and 3" high compartment inside refrigerator

Icebox: 15" by 9" and 8" deep (well insulated with drain)

Cool Runnings Nuances

- 1 – **Hatchboards:** we stow them on the port side of the companionway tucked up against the handrail.
- 2 – **Fenders:** we tie them to the stern rail below the port stern rail seat and leave one out as a roaming fender.
- 3 – **Dock Lines:** we coil them and store them in the aft corner cockpit locker on top of the power cord and hose.
- 4 – **Throttle Control:** neutral is NOT straight up. It is about 1/3 back: there is a black mark on the pedestal marking neutral.
- 5 – **Furling Main:** works great, but be sure to keep tension on the outhaul when furling in so the sail wraps up tight in the mast. That's the key to any furling main.
- 6 – **Backing and Maneuvering:** there is a slight prop walk initially to port when backing. She handles very well in forward or reverse.
- 7 – **Either cabin can be the captain's cabin:** personal preferences vary. Aft is best for reading in bed and has more storage. Forward V-berth has built in seating area and more hanging room.

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1 – Emergency Equipment_

Highlights

- **3 fire extinguishers:** in the aft cabin, the forward cabin, and on the port side of the companionway. The engine compartment also has an automatic Halon fire suppression system.
- **4 inflatable vests.** These are manual inflatable vests. They do not inflate automatically when wet from rain. We wear these at all times when working the deck and often in the cockpit. There are also **4 blue conventional vests** in the port cockpit locker.
- **Fog air horn, 4 emergency flares.** In cabinet below top companionway stair.
- **Emergency bilge pump.** Handle clips inside the port cockpit locker. Manual bilge pump is under the helm seat on the port side.
- **Emergency tiller.** Long curved pipe in port cockpit locker. Attach under helm seat after removing round access plate.
- **Lifesling,** starboard stern rail. Please review the diagrams on the face of the case for procedures. The lanyard is secured to the boat so that tossing the floating harness allows it to tow behind the boat like a ski tow rope. Circling the person overboard will draw the recovery line near them.
- **VHF,** Channel 16. VHF at navigation station and at helm.
- **Cockpit cushions.** In case of COB, throw anything that floats, quickly.

Details

Through hulls: All through hulls are located in one place under the floor panel just in front of the engine compartment. These include the engine raw water intake (with strainer), the toilet raw water intake, the macerator discharge, the galley sink discharge, and the head sink discharge. The speed and depth transducers are located under the floor panels in the forward cabin.



2. Anchors

Highlights

- Engine must be running when using the windlass
- Please be careful of fingers and feet around the windlass
- 35 lbs. Lewmar Delta primary, 150' chain, 150' line, 10' yellow mark at 100', then each 50'
- Danforth type secondary in cockpit locker, 20' chain, 200' line
- Snubber always hooked unless chain is moving
- It is essential to push the chain forward and side to side to keep it flat in the well as it is retrieved, using the boat hook or mop handle. Otherwise, chain can build into "mountain" in chain locker when retrieving
- 300' polypropylene stern tie line in port cockpit locker

Details



Main anchor – 35 lbs. Lewmar Delta (plow) mounted on the bow, with 150' 5/16" chain marked with 10' yellow paint at 100', and 5' yellow paint at 150'. 150' 9/16" line.

Snubber - We use the anchor snubber both nested underway and when anchored.

Secondary – Light weight Danforth type anchor stowed in the port cockpit locker, with 15' 5/16" chain and 200' line.

To Deploy Anchor:

- 1 – Check tide tables to determine current water level and direction and amount of change expected while anchored.
- 2 – Weather (Ch 4, “Northern Inland Waters”) helps select an anchorage.
- 3 – The windlass main circuit breaker is below the chart table next to the battery switch. This should normally remain on. Plus, when you want to use the windlass, turn on the switch on the 12 volt panel next to the chart table. Turn off this switch when not using the windlass.
- 4 – Normal for the islands is a 4 to 1 scope, bow to bottom (add 5 feet to depth sounder reading: 4’ freeboard and 1’ for transducer below waterline). In San Juans, anchorages are often about 25’ bow to bottom, so we often deploy about 100’ chain—hence the 10’ marker at 100’.
- 5 – Open and secure with bungee the anchor locker cover at the bow. There are two covered foot switches to starboard for lowering and raising the anchor. Press the down switch for just a second to slack the chain, and then push the anchor forward with the boat hook so it drops slightly.
- 6 – With one fluid motion we lower to approximately the number of feet on the depth sounder 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 the desired scope. If more than 150’ is needed, the windlass will pay out the line automatically. No need to stop the procedure as the gypsy works with chain and line.
- 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 set the snubber to take pressure off of the windlass. Then ease the windlass so it is not under strain. We test the anchor holding in reverse at 1500 rpm for a few minutes *after* setting snubber. If stronger winds are forecast, we test with RPM at 2000 rpm. (We check movement by looking ashore, not the significant prop current going by the chain.)
- 10 - In storm conditions (or storm forecast), you can increase scope if there is adequate room to leeward.
- 11 – The secondary anchor is available for additional holding power if a storm is anticipated, but best if set before the storm hits. In these waters, a stern anchor is rarely used. In some coves, a stern line to shore is used to reduce swing and allow more boats.
- 12 – If anchored in a small cove, you may wish to deploy a stern line ashore. 300’ floating polypropylene on a reel resides in a cockpit locker. Fold helm seat down; use the mop handle as an axle through the reel; set mop handle across rear port and starboard seats. Deploy the line with the dinghy while the spool unwinds. If sufficient length, bring the line around a secure shore object and back to the boat to a transom cleat for ease of retrieval.

To Retrieve Anchor:

- 1 – Start the engine! The windlass draws a lot of amps!

- 2 – After removing the snubber, depress “up” switch, always 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 go past and drag the chain against the hull.
- 3 – A “mountain” of chain under the windlass will jam it and in rare cases cause a wild gravity run out of rode. If that happens, stand clear for safety. We avoid that chain “mountain” by pushing the chain forward and side to side in the well as it is retrieved, using the boat hook or mop handle. One crew adjusts the chain with the boat hook as another crew brings it up by pressing the "up" switch, 2'-3' at a time.
- 4 – If you have more than 150' out, you will start retrieving line, which works seamlessly. As chain comes up, the windlass will continue without problems. No need to stop or make any adjustments.
- 5 - 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.
- 6 - After nesting, with a slight *slack in the chain*, we secure the anchor once again with the snubber on the anchor locker cleat. As noted, the chain is only “unsnubbed” when it is moving in or out.
- 7– Reminder: cover the windlass switches *before* closing the anchor locker lid.
- 8 – If the chain and line is muddy, us the bucket to rinse them off. There is a drain at the bottom of the anchor locker. Knock mud and kelp from the anchor using the boat hook.

3. Barbecue (new 2017)

Highlights

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

Details

The propane fired stainless steel BBQ is mounted on the starboard stern rail and is permanently connected to the propane tank below. To use the BBQ, switch on the propane solenoid switch (LP) on the 12 volt panel. Next open the blue in-line valve in the propane locker, which is under rear port seat.

When finished, please use the BBQ cleaning brush attached with a SS lanyard for convenient cleaning when the BBQ cools. Close the blue switch in the cockpit locker. Turn off the LP switch on the 12 volt panel.

4. Batteries/Charging/Inverter

Highlights

- **No need to touch the battery switch. Leave the switch on #1 for the house bank.**

- **House batteries – Bank #1 has 110 usable amp hours (Ah)**
- **Start battery – Bank #2 is normally not used unless the house bank is depleted.**
- **Average consumption, engine shutdown until next morning: 50-60 Ah**
- **The Battery Monitor below the starboard settee should be checked to see the percent of use, the actual amp hours used, and the battery voltage of the house bank #1 (main). Do not let the batteries fall below 50% or 11.8 volts.**

Details

- We check both Ah used and the voltage 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, so you can just leave the battery switch alone, except to use the start battery for emergency engine start. For reference only, the battery switch is under the chart table.
- 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 alternator delivers regulated maximum battery recharge. However, it is often impossible to fully top off batteries from the engine alone. The engine just doesn't run long enough. If the battery charge percentage stays below 80%, we try to top off overnight on shore power. Hint: one mid-week overnight on shore power helps top off the batteries, especially if we've had a few days of good sailing/little engine use.

House Bank (2017):

This battery bank is located in the rear compartment under the starboard settee. The batteries can be charged by:

- a) running the engine
- b) shore power (turn on the battery charger switch on the AC panel over the navigation station).

Engine start battery (2014):

One Group 27 starting battery is located in the forward compartment under the starboard settee. This battery is normally not used to start the engine. It is charged automatically by the shore power battery charger. You can check the voltage to make sure it remains over 12.6 using the battery monitor.

Battery Monitor:

1 – The Xantrex LinkPRO battery monitor is located below the starboard settee. It is used to check usage and state of the house battery bank (main). Scroll through the values by pressing the arrow keys. It shows the battery voltage, current draw in amps, amp hours used, and percent of amp hours used. Do not let the batteries go below 11.8 volts, 105 Ah used, or 50% or the bank will be damaged. The starter battery voltage only can also be displayed. It should normally stay over 12.6 volts.

2 – When the engine is running and the house bank charging, the monitor will indicate the amps the alternator is supplying to the bank (40 to 50 amps initially, then less and less as the batteries charge). The voltage can be as high as 14.6 during charge.



Inverter

There is a portable inverter for charging phones, computers, or cameras above the chart table. It will **not** run the microwave, hair dryers, or the heater. Plug it in to the 12 volt “cigarette” outlet on the 12 volt panel or in either cabin, turn on the switch, and plug in your AC plug. There are also two USB convertors in the navigation table that plug into the 12 volt outlets for easier charging of phones.

AC Power Outlets

There are AC power outlets throughout the boat. These only supply power when plugged into shore power. Turn on the switch on the AC panel. They are all on a GFCI circuit for safety. If the CFGI trips, the reset button is on the outlet to the left of the VHF and Fusion stereo.

5. Berths and Bedding

- For added comfort in the aft and forward cabins, we have added 2 inches of “memory foam” topper to the boat mattress, with a wrap-around mattress pad to secure it all.
- Each berth has a comforter. SJS provides 2 sheets and pillow cases for each berth.
- Two adults can also sleep on the convertible dinette. To convert the dinette, pull up on the table to lift it off of the two aluminum tube supports. Remove the aluminum tube supports and carefully place the table onto the seats. There is a sliding latch under the forward seat to secure the table. Place the filler cushion; it is stored up against the wall of the forward cabin. This is an unusually long berth.
- Berth measurements are under Boat Specifications above.



6. Bilge Pumps

Highlights

- **Emergency Hand Pump:** Handle in the port cockpit locker. Pump is on port side under helm seat.
- **Electric Bilge Pump:** It is always ready to run.

Details

1. Emergency Hand Bilge Pump – This hand operated pump is located on the port side under the helm seat. The bilge pump handle is clipped inside the port cockpit locker.
2. Electric Bilge Pump – The automatic float switch is located under the middle floorboard in the main cabin along with the pump. The pump is always “on” as it is connected directly to the battery and automatically starts for safety. There is also a switch on the 12 volt panel that will run the pump when desired.

The dripless PSS engine shaft seal eliminates bilge water. The only water in the bilge would be from melting ice in the galley ice box. Note: in emergencies, the shower sump pump can be turned on if water rises into the heads.

7. Bow Thruster (N/A)

8. Dinghy and outboard

Highlights

- **10' rigid inflatable dinghy with Hypalon tubes and fiberglass hull (2016), 2hp Honda outboard on stern rail.**
- **Tow 6' off stern, place loop over port aft cleat; tie off bitter end**
- **Please don't tow with OB attached, or leave on overnight—may flip**

Details

We have learned these precautions, please:

1 – *Never tow the dinghy with the outboard on the dinghy*, and do not leave the outboard on the dinghy overnight. Always transfer the outboard to the stern rail. It could flip and swim, costing you an outboard.

2 – The 2hp OB takes straight gasoline. The gas tank is topped 2/3 (for expansion in hot weather) by our staff. We will top it off when you return the boat, no charge. We stow the gas can in the dinghy, tied to the transom. For safety, please *never* store gasoline in a compartment on the boat.

The 30' polypropylene dinghy painter floats. A large loop in the painter about 7' in front of the dinghy makes it convenient to drop over a stern cleat for towing. We suggest that you tow the dinghy about 6 feet off the port or starboard quarter.

The 6' scope also avoids wrapping the painter around the engine 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. In rough conditions, towing on the low side makes it unlikely the dinghy will flip in the wind/waves.

9. Dodger and Rain/Sun Fly

Highlights

- **Never wipe the dodger glass or use any cleaners! Just rinse with fresh water**
- **Use the rain/sun fly if needed**

Details

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

We decided we did not want a Bimini on *Cool Runnings* as we like to see and feel the sky above us. We do have a rain/sun fly that attaches to the dodger with Velcro and extends over the arch for protection from the elements. It can be used while underway. It is in the port cockpit locker.

10. Electrical Panels (at Navigation Station)

- **12 volt panel breakers we leave on at all times have *green* dots.**
- **There is a 12 volt panel reset breaker below the navigation station, in case it trips (rare)**
- **AC panel is just to the right of the 12v panel**

- AC main breaker is at aft end of port cockpit locker, in case it trips (rare)

11. Electronics

Highlights

- The electronics are networked through the latest NMEA 2000 network standard, so all instruments and transducers communicate and share data.
- The Raymarine chartplotter is touchscreen/pinch zoom and has an assortment of preset pages (charts, radar, music, data) including split screen pages.
- The two Raymarine 70 series instruments at the helm include an assortment of data. On the right is the autopilot control (which also displays other data). The other instrument on the left allows you to scroll through different views; we primarily display apparent wind direction/speed graphic, depth, and speed.
- The 12 volt panel has a switch for VHF radio, Instruments, GPS (Chart plotter), Autopilot, and Radar.



Autopilot

Highlights

- It is a wheel pilot, so engage (or disengage) the “clutch” handle on the wheel.
- Press the Auto button to hold your current course.
- Adjust course by pressing +1, +10, -1, -10 (degrees) buttons.
- Press the Standby button and disengage clutch to stop the autopilot.

Details

The wheel autopilot motor is attached to the wheel. At the back and right of the motor is a lever for engaging or disengaging the motor (it’s a clutch). This is the latest

Raymarine Evolution Autopilot system, which holds course very well. As with all autopilots, if seas are rough, you should steer by hand.

The 70 series control instrument is mounted on the right side of the binnacle. After engaging the clutch, press the Auto button and the autopilot will maintain your current heading. You can adjust the course by pressing the +1 or -1 (degrees) buttons or the +10 or -10 (degrees) buttons. To stop the autopilot, press the Standby button and disengage the clutch. We leave this instrument displaying the magnetic course, the true wind speed, and the speed over ground (SOG). There are other views, but please do not make adjustments unless you are sure you can return the settings back for the next guest!

Please note that autopilot messages also appear on the chart plotter (everything communicates). Also, the wheel hub tightens and loosens as a brake. Make sure the hub is slightly loose before engaging the autopilot.

Chartplotter

Highlights

- **Raymarine a75 touchscreen color chart plotter displays chart, radar, and other relevant navigation data.**
- **Touch top of the screen to see the menus.**
- **Press Home anytime to return to the main screen**
- **On the main screen, press the page icon you want to display (chart, radar, chart and radar etc.)**
- **Before you arrive, install the free Raymarine RayControl app on your iPad or Android tablet and you can connect to the chart plotter via wifi and view and control the plotter from anywhere on the boat. Wifi is *CoolRunnings* and password is *connecting*. (Note: wifi is internal and does not connect to the Internet.)**





Details

- 1 – On 12 volt panel, first switch on the Instruments switch (for network)
- 2 – Next switch on the GPS (chart plotter) switch
- 3 – The chart plotter should begin start up. It takes some time to boot. If nothing happens, press the power button to turn it on. (We usually leave it on and then turn off the switch at the 12 volt panel). At some point it asks you to press continue.
- 4 – The home screen displays icons (see photo) that you can press to choose any pre-programmed page you want. The pages we have set up are Chart, Chart/Music, Radar, Chart/Radar, Dual Chart, Dual Radar, Users Manual, and Data.

We respectfully ask that you not adjust the display settings, other than zooming in and out. Please use the chart plotter only for position finding, not for setting way points. *Please do not adjust the current settings.* (Sorry, but if we need to call a professional to reset to defaults for the next guest, that will be on you.)

Note: the green line starting at the boat icon projects your course based on your current COG (course over ground), which is different from your compass heading when you are affected by current. Very handy for crabbing into the current when necessary to avoid being swept off course and onto rocks/reefs!

The purple line shows your current heading. The yellow line shows the wind direction. The blue line shows the tidal current direction. These lines are referred to as vectors in the manual. Touch any object on the screen to get information. Touch a spot on the chart and the distance to it and bearing will be shown.

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

Radar:

Highlights

- **Raymarine digital color radar overlays onto chart display, displays alone on the screen, or displays in a separate window along side of the chart.**
- **The radar switch on the 12 volt panel must be on.**
- **The chartplotter Menu/Radar Setting option changes from standby to transmit.**

Details

- 1 – Turn on the Radar breaker on the 12 volt panel.
- 2 – On the chartplotter, the radar will be in standby mode after a short warm up.
- 3 – While viewing a chart, select Menu at the top
- 4 – Select Radar Settings from the menu
- 5 – Slide the Standby/Transmit slider to Transmit
- 6 – From the Home screen you can choose to show chart with radar overlay, radar only, or radar and chart plotter side by side. We normally leave the unit preset to 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. We normally do not turn on the radar on the 12 volt panel unless we need radar.

Depthsounder

The Raymarine depthsounder transducer 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. Due to rocks, we get nervous in anything less than 30 feet underway and 15 feet in an anchorage.

The depth is displayed on the i70 instrument to the left and prominently on the chartplotter the way we have it set up. (Depth is the most important information to monitor in these waters).

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 on the chart and track our position on the chartplotter. Rocks are clearly marked.

Knotmeter

You have two speed sources: speed through the water (shown as the speed value in knots on the i70 instrument) and speed over ground (shown as the SOG value on the p70 autopilot instrument, which takes current into account).

The speed through water and SOG should be closely calibrated and can reveal important information. For example, when motoring or sailing into the current, the speed through water might read 6 kts and the COG might read 4 kts, meaning you are being slowed by 2 kts of current.

VHF radio

Highlights

- **ICOM IC-M422 VHF radio at the nav station.**
- **ICOM RAM mic at the helm.** The RAM mic enables us to hear and transmit from the cockpit.
- **Always monitor Ch 16.** As the nearest vessel to an emergency, you may well be able to save a life or a boat.
- **When contacting marinas or nearby boats, set the VHF to low power.**

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 mic* after each use so that you automatically monitor channel 16 and channel 80 while underway. The VHF is not connected to the network.

The “WX/CH” button accesses the weather channels (channel #4 is most often in range). We listen for “Northern Inland Waters.” Pressing “WX/CH” again returns the last used channel. To adjust volume, hold “vol” for a few moments then release. The up and down arrows now adjust the volume rather than the channel.

Emergency Procedures: please see #1 in the above Owners Notes.

12. Engine

Highlights

- Yanmar 29hp 3 cylinder diesel, with PYI dripless shaft seal and 3 blade fixed prop.
- The companionway stairs lift and slide out to access the engine front for daily engine “lookover”. This “before engine start” shows us in one quick view any black powder belt wear or loose belt, oil in bilge, or coolant spillage.
- Avoid excessive idling
- 2400 rpm is economy cruise (5.5 knots)
- 2600 rpm is normal cruise (6 knots)
- 2800 rpm is fast cruise (when fighting wind or waves)
- Please DO NOT exceed 3000 rpm (you are just wasting fuel and overworking the engine)



The oil dipstick is on the left side of the engine. The engine is not known to use oil; nevertheless, a spare quart is stored with spare parts. Mechanics check the oil levels weekly.

The raw water strainer is under the floorboard in front of the engine where all through hulls are. No need to open or clean unless the engine overheats. Turn off the raw water intake seacock before unscrewing the strainer. Be careful not to lose the o-ring. When screwing the strainer back on, please avoid over-tightening. Be sure to open the seacock for the through hull and look for leaks. Some maintenance people put the boat keys over the seacock handle to remind themselves!

To Start:

1. Assure throttle/gearshift is in neutral. Note that this is back about 1/3 rather than straight up. We depress the black button at the center of the gearshift handle and push the throttle forward about 1/3 to disengage the transmission for starting and warm up.



2. Turn the key clockwise to “on” and then “start” (just like a car). When the engine starts, release the key and it will return to the run position. When the key is turned to “on,” the low pressure alarm will buzz until the engine starts.
3. Listen/look for exhaust water coming from aft starboard rear of hull.
4. 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:

- 1100 to 1400 rpm is about 3-4 knots—marina speed
- 2000 rpm is “quiet” economy cruise, about 5 knots in calm water,
- 2400 rpm is economy cruise, about 5.5 knots in calm water.
- **2600 rpm is normal cruise, about 6 knots (green dot on tachometer)**
- 2800 rpm is max cruise, for times of rougher seas or wind.
- Do not exceed 3000 rpm (red dot on tachometer)

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 the engine at modest rpm for 2 minute after running at cruising speed before shutting down.
2. *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.

Engine overheat:

Normal engine temp is 180 degrees. There is a light and alarm buzzer on the engine panel. If the alarm sounds, or steam comes out the exhaust, please check the amount of water coming out the exhaust. If it is little or none, the most likely cause is eelgrass plugging the raw water strainer. See above for instructions for on cleaning the strainer. (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. The plastic overflow container is accessed through the removable panel behind the engine in the aft cabin. Normally, the coolant level in the overflow plastic container is at the “low” to “mid” level. If below the “low” level, we add coolant, but not before. Do not open the “radiator” cap on the top of the engine!

13. Entertainment System

- **Satellite Radio/AM-FM Stereo/iPod**

The Fusion marine stereo has two cabin speakers and two cockpit speakers in separate zones. The Fusion stereo makes it easy to control the volume in each zone. Just press the volume control to cycle through the options. For example, if both zones are highlighted, the volume control will adjust both zones. If one zone is highlighted, the volume control will adjust just that zone.

There is a USB input for phones and iPods (that charges the device as well), and a mini jack aux input. These are on the panel to the left (around the corner) of the stereo. The radio also has AM, FM, and Sirius/XM radio.

The Fusion stereo communicates with the boat’s network and can be controlled by the Raymarine a75 chartplotter. For it to work properly, turn on the stereo before turning on the instruments and chartplotter breakers. The chartplotter has an icon page option for split screen with Chart/Music for controlling the Fusion stereo.



We don't have a TV on board. We bring movies downloaded to our computer or iPad or use a notebook computer with a DVD drive.

14. Fuel

Highlights

- **The fuel gauge is in the engine panel at the starboard side of the cockpit.**
- **Fuel fill is port aft**

Details

Fuel tank is located under the port aft. The tank holds 25 gallons. The key must be on to read the fuel level (but note the low oil pressure alarm will sound).

Fueling: Fill until the *gauge* reads "full". *Don't top off. Otherwise, in warm weather the tank can "oil can" and seep fuel out of the vent.* Please fill very carefully because it is difficult to tell when the tank is full. Do not rely on the pump's auto stop. You need to put your ear to the tank, not fill "too fast", and be prepared. Knowing how far down the gauge is and about how many gallons the tank will accept, helps.

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.

15. Generator (None)

16. Head and Holding Tank

Highlights

- **The toilet is manual and uses salt water**
- **Holding tank holds 25 gallons emptied either by pump out or macerator.**
- **The deck fitting for pump out is starboard aft**
- **A macerator pumps out the holding tank overboard. Open the valve under the floor panel just forward of the engine, switch on macerator on the 12 volt panel, and then hold the switch just below on to run the pump.**

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!

The lever should always be on “dry” except when flushing, to prevent flooding the boat in case of valve failure. Move to “flush” to bring water in and out, then back to “dry” to empty the bowl. If it gets hard to flush, try “oil and vinegar.” SJS staff puts vinegar and vegetable oil in the head cabinet. Vinegar sanitizes and reduces odors. A tablespoon of vegetable oil flushed will lubricate the valves and seals, making pumping much easier as well as more efficient.

Holding Tank:

The holding tank is approximately 25 gallons. It is located behind the aft cabin on the starboard side. The tank has a deck fitting for use at a pump out facility starboard aft. Alternatively, use the macerator to pump out overboard. There is no direct discharge y-valve on *Cool Runnings*. Everything goes into the holding tank.

The gauge at the navigation station has a switch to show either fresh water tank or holding tank. Please forgive us if the holding tank gauge is inaccurate. Due to the nature of their immersion, these foul most of the time. As a general rule, empty the holding tank at least every other day.

Be aware that discharge of the holding tank in deep water is permissible in Canadian waters, but USCG regs prohibit such discharge in US waters. The state director of salt water quality told us that urine from boaters has no adverse impact on marine waters. More information about holding tanks and discharge will be covered in the orientation session.

If the holding tanks are overfilled, effluent will overflow through the vent, which gives foul odors and dirties the hull. In some cases, overfilling can caused a tank to burst. If in doubt, pump out.

17. Heaters

Highlights

- **Webasto forced air, set thermostat to desired temp**
- **Use to warm the cabin before bed and in the morning**
- **Not practical to run all night, noise wakes light sleepers**
- **Portable electric heater for use on shorepower**



Details

The Webasto thermostatically controlled forced air heating system draws from the main diesel fuel tank and runs off of the house batteries. In our waters, we use the heater on cool evenings or to take the chill off in the morning.

The thermostat is in the galley. To use the heating system, first turn on the main breaker for the heater on the 12 volt panel. To start the heater, move the sliding switch on the thermostat to "on." Use the arrows to set the temperature. It takes about 5 minutes to go through the start up sequence. Be patient. There are hot air outlets in the aft cabin, galley, main cabin under dinette, and in the forward cabin.

To turn off the heater, switch the system to "off" on the thermostat. The heater goes through a 5 minute shutdown sequence. **It is very important to NOT use the 12 volt panel switch to turn off the heater.** It is the main breaker, NOT an on and off switch. The 5 minute shutdown sequence must be allowed to complete or serious damage can be done to the heating system. Wait at least 10 minutes before turning the breaker off.

We normally turn off the heater at night, both to sleep cool and to avoid the air blowing sound and the clicking sound of its electric fuel pump. It just isn't practical to use the thermostat to hold the temperature through the night.

If the heating system becomes non-responsive, turn the thermostat off, wait for five minutes, and then turn off the breaker on the 12 volt panel. After a few minutes, start the system again. We have found that making too many changes to the temperature or turning the thermostat on and off too quickly can "confuse" the control system (e.g., as with everything these days, there are some bugs). "Rebooting" solves most problems.

The electric heater is for marina use when plugged into the shore power. It is normally stowed in the cabinet of the aft cabin.

18. Propane

Highlights

- Turn on the LP switch on the 12 volt panel
- Also turn on propane switch right side of sink counter (BBQ and stove)
- Open valve on propane tank
- For BBQ, also turn on yellow valve
- For safety, we turn off the LP switches/valves after stove or BBQ use

Details

We have two aluminum propane tanks under the starboard helm seat, vented to the outside for safety. Each tank normally lasts 2 weeks. The San Juan Sailing staff weighs these tanks weekly to assure that you don't run out. If one tank empties, there is a spare for your convenience.

Troubleshooting: If the stove won't start, check a) propane tank valve is full open, b) LP solenoid switch is on, c) switch at side of galley sink in on, d) stove knob is first pushed in, then left to the "ignite" position and after flame, is held until the thermocouple heats. If BBQ doesn't start, check a) in-line valve near propane tank is parallel to hose, b) BBQ control is pushed down at "start" before igniting.

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

19. Refrigerator, freezer, and ice box

Highlights

- Normally the refrigerator is left "on" all the time
- The switch is on the 12 volt panel
- If batteries are running low, turn off the refrigerator overnight.

Details

The refrigerator is front loading, and with most boats, it is not very large. There is space for two half gallon milk cartons on the door. There is one shelf. The freezer inside is large enough to hold a few steaks and chicken breasts. The icebox has a top loading with lid to the right of the refrigerator. It drains to the bilge if you use ice. We usually use it to hold fresh vegetables and breads without ice.

20. Sails and Rigging

Highlights

- Furling main and 100% furling jib
- All lines led aft
- Easy reefing by rolling in the main and jib
- The key to the furling main is to roll it up tight by putting tension on the outhaul as the sail is rolled in.

- The mainsheet should be adjusted using the winch to the right of the companionway.
- The traveler is on top of the arch and is easily adjusted from the helm.

Details

Mainsail: Unlike a conventional main, with the furling main, you get sailing faster!

Unfurling the Main:

1 – at moderate speed, hold the boat into the wind

2 – there are two lines controlling the unfurling: pull out on the outhaul (on the right side of the companionway) using the winch. At the same time, hold the continuous loop line on the left side of the companionway to provide tension as the sail unfurls. If you do not use enough tension, the sail will furl out too fast, possible causing a jam, but also creating too much resistance as the sail fills with wind. This makes it very hard to crank the winch to pull out on outhaul. This is why holding the boat into the wind works best for this boat.

3 – the continuous loop goes over the winch on the mast and back to two line stoppers next to the companionway. Tension on both lines when unfurling holds the line down on the winch to create some friction. When unfurling, the winch on the mast needs to be set to “free” rather than “ratchet.”



Furling the Main.

It's very simple, really, if done right. But do it wrong—as frankly many charter guests have—and you have BIG trouble. First rule, never, ever, luff the main when furling in the sail. Keep just a little wind in the sail and hold onto the outhaul. Always keep tension on the outhaul so you get a nice tight wrap inside the mast, not a fat sausage with wrinkles—jams are sure to result.

Hunter sailboats reduce the chance of jams because the boom angles up. This automatically makes the sail roll up so the bottom “hem” does not overlap onto itself inside of the mast.

Here's how to do it:

1. Open the two line stoppers for the continuous loop.
2. Put the continuous line around the winch so the winch will pull in the line closest to the companionway.
3. Use the winch to furl in the sail while keeping tension on the outhaul.



An alternate approach (which we prefer) is to have one crewmember go up to the mast and use the winch there to furl in the sail. It is faster and requires way fewer turns on the winch. Be sure to have another crewmember hold the outhaul and keep the boat just off the wind so it furls up tight. No need to hold onto the continuous furling line.

Now, what to do if you end up jamming the mainsail? Arghh! It gets ugly. Try to unfurl the main so you get a “do over.” You may need to get a blunt instrument, like a Philips screwdriver with tape over the end, to try to push binding fabric back into the mast, perhaps after relieving tension on the outhaul. Try cranking in the sail using the winch on the mast to roll up any slack. Fiddle away, and good luck! If the sail is furled in too loose, you probably won’t find out until you next try to furl out the sail.

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 and the tell tales flying straight.

Reefing: [furling main]

Furling sails are great because of easy and flexible reefing:

- 1 – Turn almost into the wind so the main is depowered but not luffing

- 2 – Set up the continuous line around the winch in the cockpit with both line stoppers open (avoid going up to the mast in windy conditions when it's "time to reef" but be sure the winch on the mast is set to "ratchet").
- 3 – Ready the outhaul line by wrapping it around its winch for some tension.
- 4 – Furl in the mainsail using the winch while applying enough friction on the outhaul line. The ratcheting of the winch on the mast will keep the sail from unfurling if the wind fills the sail too much.

The Jib:

The Hunter 33 is a fractional rig, so the 100% jib is not very big, making unfurling/furling and tacking easy. Furling and unfurling is done just like with any other boat

Unfurling the Jib:

While on a close hauled tack (not into the wind), ready the appropriate sheet on the winch to pull out the sail. Ready the furling line (starboard side of the cockpit) by uncleating it and applying some tension as the sail unfurls. Use the winch assisted by wind to unfurl the sail. Cleat the furling line. Adjust the sail as needed.

Furling the Jib:

While on a close hauled tack, ready the furling line by it wrapping around the starboard winch. Prepare the sheet with just a few wraps around the winch ready to slip as the sail furls in. As the furling line is winched to pull in the jib, keep a little tension on the sheet. As the sail approaches being fully furled, apply tension to both sheets so the sail is furled in tight and the sheets wrap once around the sail.

Reefing the Jib:

As with any furling jib, furl it in about a third to reef pulling in on the furling line while keeping tension on the sheets.

21. Showers and Sump Pump

Highlights

- **The shower head is pulled out from the sink in the head**
- **Turn on the sump pump on the 12 volt panel**
- **Sit or stand in the head using the hand held shower**
- **Push the button below sink to pump out accumulating water**
- **There is a hot and cold transom shower under the helm seat starboard side**

22. Spares and Tools

Common spares

Location: under forward dinette seat.

Contents: oil absorbent pads, fuel filters, oil filter, engine belts, impeller, toilet parts

Tools

Location: under the forward dinette seat

Contents: tool kit case, tool bag, Yanmar tools

Fluids

Location: under the forward starboard settee

Contents: engine oil, coolant, battery water

Additional spares

Location: under forward stateroom mattress, forward end.

Contents: spare power cord, spare propeller, spare domestic fresh water pump.

23. Storage

The amount of storage on any sailboat is limited. We found these of greatest use:

Food:

1 – There is a cabinet for food right of the dishes cabinet.

2 – There is space for food on the shelf behind the dinette seat. There is also a three bottle wine rack.

3 – We usually store food in the icebox (without ice).

4 – There is space for food behind the starboard settee cushion and behind the port dinette cushion.

Note: you might want to check that the wood cutting board below the stove is behind the fiddle before you heel to port. Yes, this is the voice of experience ;-)

Clothes and personal gear: Each stateroom has locker space. The forward locker is a hanging locker with shelf on top. The aft cabin has a lot of storage. We have converted the aft cabin hanging locker to shelves because boat hanging lockers just aren't very functional. There also is a shelf above. We hang coats on the hooks provided in either cabin. We hang wet foul weather gear in the head.

Tools: Under the forward dinette seat.

Fenders: We tie them to the port aft stern rail below the stern rail seat.

Dock Lines: In the aft port cockpit locker, on top of the shorepower cable and hose.

Cooking utensils: In bins on top of the three cabinets in the galley.

Dishes: In the middle galley cabinet (stacked on the strainer with drain)_

Glasses: In the open compartment of the galley

Pots and Pans: Under the sink and under the middle dinette seat

Cups, silver, coffee pot, spices: in the rear most galley cabinet

24. Stove and Oven

Highlights

- LP Switch on 12 volt panel on
- Propane switch at side of sink on cabinet
- 2 burner stove, depress knob, turn left ¼ turn, press knob in for sparker
- Hold in until it stays lit; adjust flame
- Stove off, then propane switch off, then LP switch off
- Microwave for use with shorepower only
- Oven knob left or right (see photo) 1/8, push in knob for sparker, adjust

Details

The two burner gimbaled Force 10 propane stove must have the LP (propane) switch on (12 volt panel), plus, the propane switch on the side of the lower cabinet right of the galley sink.

To light a stove burner, *depress* the knob, turn ¼ turn to the left and hold it to light with the spark. You will hear a clicking sound from the sparker. Frankly, sometimes it just doesn't work well. If so, try pressing one of the other knobs (including the oven knob) as they all cause the spark. You can also use a lighter to light the burner while holding in the knob. 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 either broil (clockwise) or bake (counterclockwise). See photo. Depress the knob and the oven sparker will light the oven. Adjust the oven temperature as needed. It works very well. We have found baking times will be longer than at home. Our apologies that the knob is so hard to read because of the teak fiddle in front.



25. Water

Highlights

- One 50 gallon water tank
- Deck fill is forward by the bow on the port

Details

The water tank is under the forward cabin bunk. There are no valves to adjust. We leave the 12 volt switch on all the time. There is an accumulator tank to make the water flow smoother and quieter. Sometimes you will hear the water pump turn on for a moment to fill the accumulator. This is normal. The water level gauge is left of the 12 volt panel below the VHF radio. Turn on the switch on the 12 volt panel. The small switch on the gauge switches between water and holding tank. At 1/2 the water tank is really 1/3 full.

There are two ways to heat water:

- Engine: It takes about a half hour while underway to heat the 6 gallon hot water tank.
- Shorepower: If hooked up, turn on the "hot water" circuit breaker on the 110v panel.