

Notes from the Owners of LITTLE TOOT

Welcome aboard! We hope you enjoy Little Toot as much as we do. We are immensely pleased with this fine boat. She is a non pretentious, "bristol" quality fast trawler, that is very sea kindly, and as fuel efficient as a sail boat. We have tried to equip her with the quality of gear befitting her fine heritage. She is very stable in heavy weather, and has the most advanced electronic and safety equipment that we can find. My wife, who is a gourmet cook, has outfitted the galley with the best tools and equipment for easy enjoyable cooking. Not only is Little Toot a "fuel sipper", she has an electric tender, so there is no gas on board. The tender is also designed to be a nice rowing boat, so we have added some custom spruce oars for those who like their exercise on the water. What we find the most enjoyable, is the 360 degree open view window configuration. This allows uncompromised enjoyment of the great northwest, without regard to the weather. For us, sitting on Little Toot, taking in the late evening afterglow in some protected little cove, is about as good as life gets.

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1. Anchors: Our boat is equipped with two anchors, one forward and another located aft in the aft cockpit locker. The primary anchor is a Bruce type with 150 feet of chain and 100 feet of rode. We find this holds well in a variety of conditions. The secondary is a Fortress which has 50ft of chain and 100 ft of rode. It is made of aircraft aluminum and is very light, but very strong. This allows it to be easily moved about in case you want to put it in the dinghy and take it ashore for a stern anchor. This is all kept in the aft storage locker in a sea bag. Primary Chain and rode are marked with paint every ten feet. In addition there is 200 ft of floating line in the aft cockpit locker for a stern tie off (The aft

locker is locked and unlocked by a “T-pull” just to starboard of the inside of the cabin door). It is on a roller spool. Finally, there is a small anchor for the tender so that you can hold the dinghy on shore should the tide come up after you have beached.

The scope to use in the islands is 4-to-1. Most coves are 15'-30' deep, so expect to pay out about 60'-120' of rode. After you have paid out the suitable amount of rode, a couple of in and out reverse (idle speed) sets the anchor and tests its holding power.

For storm conditions, extend scope to 7 or 10-to-1 (200' in 20' of water), provided you have room to leeward. Otherwise, set two bow anchors (using the secondary anchor, chain and rode) in a v-type pattern for extra holding power.

- **Anchor windlass** can be operated from inside at the helm station, or on deck using the foot switches. Adjacent to the anchor station is a wash down hose that is housed in the flush deck access panel. This wash down hose uses a raw water pump that has plenty of pressure to wash off caked on mud and other debris that the anchor has hauled up. After the pump is turned on from inside the helm station, the water is controlled by rotating the nozzle and the end of the hose. The anchor road has a stainless steel universal coupling so it feeds into the windlass automatically. Just pull up the anchor let it go snug against its housing. Afterwards replace the keeper which is on the end of a keeper line next to the anchor assembly. No need to put your fingers or feet into the moving chain to seat the anchor.

When retrieving the anchor, never use a windlass to pull the boat forward to where the anchor is set. (The windlass is not designed for it, would be a large draw on the batteries, and might cause serious damage to the attachment base.) Instead, head the boat under power toward the anchor while using the windlass to take up the slack in the chain.

2. Barbecue: The stainless steel propane barbecue sits on the stern rail. To use, take off the cover and take out the shelf that is stored inside. It hooks to the front of the barbecue and gives you a place to set food while you are cooking. The propane hose is in the propane tank storage box located under the steps to the flybridge. As a courtesy to the next guest, please use the wire brush to clean the barbecue after use. When finished put the tee hose, starter and wire brush back in the propane box. Place the storage shelf back into the barbecue and recover it with the canvas cover. Thank you!

3. Batteries: Two battery banks are located in the engine room. Bank #1 is for starting the engine. Bank #2 is a four-battery bank with deep cycle high amp/hr batteries. Each bank has a dedicated alternator. The two battery banks are completely separate with no cross over connections. This means there is no chance of draining the start battery by forgetting to switch off of the house bank. Nor is there any need to switch banks to charge. Both banks charge automatically.

CAUTION: *Never turn a switch to “off” while the engine is running! This will blow the diodes on the alternator, and your batteries will no longer charge.*

In the unlikely event that the start battery failed, there are jumper cables in the engine compartment to make the connection from the house bank. (Do not do this without contacting San Juan Yachting first.)

The house bank has a high-output alternator. As a result, with four deep cycle batteries, there is no need for a generator. The house bank will run the refrigerator, furnace and normal lighting requirements for about three days with no running time on the main engine. If you are underway for 45 minutes a day, the batteries will be fully recharged. If you use the microwave or a hair dryer with the inverter, it will require a little more run time.

There is a house **battery control panel** on the port side bulkhead next to the clock and barometer. This little device will give you real time information about the percentage of availability, the amp hours available, as well as consumption. To operate, just punch the mode button and it will scan and read out the appropriate info. Managing your electrical consumptions is very easy using this device.

There are three separate **inverter** 110 plugs onboard. One is on the port bulkhead next to the barometer. The top switch is for the inverter and the lower is 110 for shore power. There is another set of inverter switches in the galley, as well as another set of shore side 110 plugs. And finally there is an inverter 110 outlet in the port side forward berth. It is located on top of the portside shelf above the berth. The control switch for the inverter is in the galley next to the control switch for the propane. I recommend that you leave it on at all times.

4. Berths: Our boat sleeps four adults, two in the private cabin forward; and two in the main salon. The forward berth has an extra thick pad so the bed is very comfortable. My wife and I do not use the center fill cushion because there is plenty of room to sleep side by side along each of the bulkheads. If one wants to use the center cushion we store it on the top deck under the helm station. If you use it you will notice a small tag that shows how to align the cushion with the bed.

There is lots of storage under both beds, and a foot locker with two dowers as you enter the cabin. There is a private door for the cabin, it is provided by opening the hanging locker next to the head. We keep the hanger locker door closed and only use it when someone wants privacy to change clothes, etc.

The aft berth is a fold down bed made up in the main saloon. The main table is dropped to make up the berth. Be sure to retighten the hold downs when you have the table at the lowest level. The berth cushions are located in the forward berth strapped to the port and starboard bulkheads.

5. Bilge pumps: There are three bilge pumps. The bilge pumps are located in: [1] the engine compartment at the stern under the drive shaft; [2] the forward sole under the step in the galley; and [3] the exterior aft storage locker. These pumps are automatic and are all on separate switches on the lower side of the electrical panel. They have testing switches so that you can determine that they are in fact able to pump. The electric bilge pumps all have an automatic float switch. When turned on at the electrical panel, it remains on, but the pump will only engage when enough water comes in to cover the float switch. I like to monitor all of the bilges. The boat should be dry. If there is any water in the bilge, its source needs to be identified and remedied.

6. Dinghy: The boat is equipped with a custom built tender. This tender was built by Gig Harbor Boatworks and is designed to serve several functions. The most obvious is to transport you and your guest to and from shore when at anchor. The second is recreational, I enjoy rowing for exercise and the tender is designed to be a smooth comfortable row boat. There is a set of specially-made spruce oars on the upper deck. Finally, we have equipped the tender with an electrical motor instead of a gas motor. It is very quiet and enjoyable to travel around under electrical power. The motor which is attached to the tiller is a very efficient electronically-controlled motor and will travel at hull speed for approximate 8 to 10 hrs before needing a charge. It will run only 2 hrs if run at full speed. We believe that having this green source of power is much safer than having gasoline on board and it adds one more battery to the house side bank of four. The charge happens automatically as long as you plug it in when you are underway.

When getting into and out of the tender be careful. It will tip! Step into the middle of the tender while it is still attached to the davits. Keep your body low and your hands on both gunnels when you move around. It is important to not step on the edges. When you use the tender please take the portable floating vhf radio with you. It is an important safety feature should you need to get in touch with someone.

As owners, we would very much appreciate your special care when beaching the dinghy. There are not always gentle sandy beaches here in the northwest. Most often they are rocky, covered by barnacles equipped with extra sharp cutters. Here's what works best: As you approach the beach pull up on the hall out lines on the tiller, this will raise the motor; launch a person off the dinghy bow as you touch shore; have the person on the shore help offload everyone else over the bow. Now lift the dinghy above barnacle height and deposit it gently on the beach. It is only 50 lbs and two people can carry it very easily. We recommend using the small anchor under a log or rock so that a rising tide does not leave you high and dry and dinghy-less!

7. Electronics:

The boat is equipped with Integrated Radar, ALS, Dual GPS Chart Plotters, Auto Pilot, Depth sounder, 3D Plotter, Sirius Radio Weather Chart Plotter, and VHF Transponding Radio. Everything is Raymarine and there is a handbook at the lower helm station that will give you a quick overview of the operating features of all of the equipment. There is a more comprehensive set of manuals under the seat in the main.

We recommend that in addition to using your PRIMARY navigation aids – namely, the Maptech waterproof chart book or the roll charts (with the most active “killer rocks” marked in red) – up at the helm while underway, you also utilize the chartplotter for added safety. It helps you to see if you are where you think you are on the chart book or paper charts. If someone asks, “Where are we?” Within 3 seconds, you need to be able to point to the chart and show them the vessel's precise position. If you can't, you're in danger of hitting a rock.

The only time when the chartplotter becomes your primary navigation tool is when you're in a “tight spot” like going through a narrow pass or approaching the entrance to a secluded cove. (With the chartplotter, you can “zoom in” to make something that's the size of a dime on a paper chart into the size of a paperback novel or larger on the screen. You can see more detail and,

importantly, any hazards in the area. Your boat's position on the chartplotter is accurate to within 3 meters – about 10 feet.)

You should have little need of the radar except for the highly unlikely event that you are suddenly enveloped by fog, which is rare in this area. The fog that we've encountered in the islands usually forms in the wee hours of the morning and burns off by mid-day. So if it's a little soupy after breakfast, we put on an extra pot of coffee until it lifts. Never depart from a safe location into the fog! To do so, even with radar, would be contrary to prudent seamanship. FYI – Fog becomes "reduced visibility" when you can see ¼ mile (about 4 football fields) in all directions. It is safe to proceed CAREFULLY in reduced visibility using your radar to "see" beyond the haze, but be sure to look up from the screen about every 10 seconds and use your eyes to scan the horizon forward, behind, and side to side. A motoryacht, tanker or freighter traveling at 20 knots takes only 39 seconds to travel ¼ mile! You need to see these fast-moving vessels sooner-rather-than-later so you can prepare, if indicated, to quickly take evasive action to avoid an impending collision.

All of this equipment is controlled from either the lower helm station or the flying bridge helm station. There are electrical switches on the main power control panel for all of the equipment. I tend to turn all of the equipment on and off at the power control switches. That way everything can be turned on before starting the engine, and turned off after you are stopped. There is also a computer on board that we use as a DVD player and it can be used as a course-plotting system since it is integrated into the boat's electronics. The AM/FM/CD/Sirius radio in the main salon controls speakers on the top deck.

- Depthsounder

The digital depthsounder will not give accurate readings in deep water. In deeper water, the sensitivity on the unit increases as the transducer tries to get some reading back. Consequently, you will receive many false readings caused by currents, changes in water temperature, fish, and seaweed. Use the depthsounder only as an aid to navigation in shallow water.

IMPORTANT: *The key to avoiding rocks is NOT the depthsounder – but knowing where you are at all times. (Rocks are the greatest navigational and safety hazard in the islands – but they are all clearly marked on the charts.)*

We do not recommend using the depthsounder's alarm during night. It's likely to sound at inappropriate times such as late at night while fish are passing beneath the transducer. (Instead, consult the onboard tide data to determine whether you're anchored in a safe location, considering how shallow your depth will become when the tide ebbs out of your anchorage in the middle of the night.)

- VHF radio:

You should monitor channel 16 (the hailing and distress channel) during your cruise. After establishing contact on channel 16, switch to working channels 68, 69, or 80. Scan the weather channels for the one with the best reception before sailing in the morning and prior to anchoring for the evening. This is generally a light wind region but weather changes can be sudden. Listen for the “inland waters of western Washington” or “Camano Island to Point Roberts”. Both cover the San Juan Islands. You will also hear “Strait of Juan de Fuca” (south of the San Juans), “Georgia Strait” (north), and “Rosario Strait” (runs through the eastern part of the San Juans). San Juan Yachting monitors channel 80 during office hours (closed Sundays). By phone you can reach the San Juan Yachting office at (800) 670-8089 or SJS’s owner, Roger Van Dyken, at (360) 224-4300 (cell) or (360) 354-5770 (home). You can reach the maintenance professional, Forrest Longman at 360 927 6906

8. Engine:

The hatch to the engine compartment is in the main salon under your feet. There is a rotating latch to unlock and then open the hatch door. Be sure and close the latch after closing the engine compartment door or else you will trip over it. There is a set of engine compartment lights on the main control panel, be sure to turn them off after using them as they will drain your house batteries if left on. When you close the engine compartment hatch you will notice that there is a safety catch on the hatch lever. If the door does not close easily it is because the latch has not been released. Reach towards the back of the engine hatch and pull the lever towards you and it will release. The door is hydraulically closed so it will not slam shut on you.

Check the oil level. The dipstick is easily accessed on the starboard side of the engine compartment. There is a wide gap on the dipstick between the full line and the fill line.

Above all, do not overfill. Use the onboard spare oil to add no more than a cup at a time. Then check the level again. This is not a car engine where you can add a quart at a time. Overfilling is the worst thing you can do to a diesel. The excess oil will get out somehow, sometimes by blowing the head gasket. So if the oil is down a bit, please add only a cup at a time. Incidentally, the first time you pull the dipstick; it often has no oil showing. After your heart skips a beat, reinsert the dipstick and the correct level will show. It will be black, of course, as is all oil in diesels after a couple minutes of running. We change the oil at 100 hour intervals.

Also check to make sure that you have coolant in the clear coolant storage expansion tank. It will tell you what the level should be when the engine is cold. If the engine needs additional coolant or oil they are located on the port side of the forward engine compartment. It is unlikely that you will need any, but please check the oil and coolant every morning before starting the engine. Also make sure there is no oil, coolant, or water in the engine compartment. If there is, find the source and call San Juan Yachting for direction. Everything should be clean and dry.

- Engine-starting Sequence

Close the engine compartment, and secure the rotating latch.

Turn on all electronic equipment.

Check that all electronic systems are on and functioning correctly

Check the helm indicator to make sure that your rudder is amidships
Check the transmission lever to make sure it is in natural
Check the accelerator handle to make sure it is at its lowest level
Check that the forward windows in the forward birth are closed and locked
Turn on engine by turning the key to the right and let run approximately 3 minutes
Check all engine gages to make sure that all is working properly
Check fuel levels in each tank and make a note as to amount and time

We have found that this 200 hp Volvo engine to be very reliable. The engine compartment is heavily insulated so the engine noise is very low. The type of hull [known as a KEELFORM] has a unique bottom shape consisting of a large displacement keel and a very wide waterline bream. This is not a planing or modified planing hull. As a result, you can cruise at any speed you like between 1 knot and 15 knots. At seven knots you should get between 1 and 1.5 gallons per hour. At 13 knots you will burn around 2.5 and 3 gallons per hour. We tend to stay at about 2400 to 3000 RPM. The maximum sustained RPM should be 3500.

To avoid the possibility of sucking air or sludge when the fuel level approaches 1/4 of a tank, refuel when the fuel drops below 1/2 full and before it reaches 1/4 full.

Engine Overheat. If the buzzer sounds while the engine is running, about 999 times out of a thousand it's no more serious than eelgrass plugging up your raw water strainer. The best upfront solution to this problem is prevention—keep an eye peeled for eelgrass mats, especially along those “soapy” looking tide and eddy lines in the water. And don't run over it. When eelgrass gets sucked into the engine cooling water intake, it jams at the raw water strainer.

***To clear the eelgrass from the raw water strainer,** close the seacock located in the engine compartment at the front of the motor on the port side. Remove the filter element of the strainer by turning the cap to the right. Extract the stainless steel filter element. Remove the eelgrass. Open the seacock to assure that it is not clogged. Close it again and carefully reinsert the stainless steel filter element. Note the two nubs on the bottom which must seat into two receptacles in the base of the strainer, otherwise the lid won't seal. Reinsert the filter casing and tighten simultaneously to assure the casing remains flat on the strainer. Then restart the engine.*

If upon restarting the engine overheats again, check the seal between the strainer, the rubber gasket, and the lid. If the strainer is drawing air, it won't draw water. If needed, open and then retighten the lid on the strainer...and check to make sure the rubber gasket is in place in the lid (and not lying in the bilge.)

If the above fails to solve the problem, call San Juan Yachting for assistance.

There may be other reasons you hear the buzzer. If you lost oil pressure, the oil icon warning light will light up, so check which light is showing red. If it's the oil light, shut down the engine, check the oil level, and contact San Juan Sailing. The alarm buzzer is more likely to indicate engine overheating, and the temperature icon light will light up. Before you shut down the engine, check for water gurgling out the exhaust. If you have a “wet exhaust”, check the coolant level in the overflow reservoir bottle and if none is seen, add enough to reach the top level line on the bottle. (ONLY AFTER THE ENGINE COOLS DOWN, you might remove the cap on the engine block and add coolant.) And check the bilge for a light green liquid. If found in the bilge, call San Juan Yachting. If the coolant reservoir bottle

is full, check to see if the engine threw a belt. Without a belt on the raw water pump, the coolant won't circulate and cool the engine. (Replacement belts are located in the engine spares kit.) One other possibility is that the impeller in the raw water pump has failed. While they are replaced each spring with a new one, it's still possible that a hard object may be drawn in and break off an impeller blade. (A replacement impeller is found with the engine spares.) Call San Juan Yachting if you suspect you have an impeller problem.

Engine shutdown: First make sure the engine is at idle and the gearshift in neutral. Then turn the switch by turning it to the left and hold for 2 seconds till the engine stops. When the engine dies, flip off the power switch to the electronic equipment.

9. Fuel Tank: The boat is equipped with two fuel tanks for a total of 133 gal of fuel. The level can only be read when the boat is at stop. All other readings are inaccurate. The fuel gauge is located in the center of the helm station and has a switch to determine which tank is being checked. Flip the switch to check both tanks.

Please be very careful when fueling. It takes only a few drops of diesel fuel in the water to create a sheen and subject you to a Coast Guard fine. Fill carefully. Check the side vent and, with soap, wipe up any excess fuel to avoid yellowing the stern and polluting the water. Also be very careful of drips when removing the hose. Diesel and shoe bottoms are a very slippery and dangerous combination. After wiping, please use soapy water to scrub down any drips so it does not stain the fiberglass.

Note: Unlike automobile fuel gauges, fuel gauges on boats are notoriously inaccurate. Therefore, whenever the fuel level drops below 1/2 full, you should refuel at your next opportunity. NEVER let the fuel level fall below 1/4 full or you're in danger of running out of fuel. (Towing and the cost of a mechanic to bleed the air from the fuel lines is an expensive proposition for a charter guest.)

10. Head and holding tank: The boat is fitted with a Vacuflush toilet system. This toilet uses fresh water from the fresh water tanks and requires the fresh water pump to be on. This eliminates the odor problems associated with saltwater-flushing systems. The Vacuflush also uses very little water which makes the 15 gal tank seem bigger than a normal holding tank (although it still fills fast and you don't want to overfill it!) There is a "full indicator light" next to the helm station. This is a red light and when it comes on you need to pump out the waste tank.

If you pump out the holding tank at a shore facility, please fill it with about 5 gallons of fresh water through the deck fitting to rinse, and then pump it out again. Thank you!

Remote cruisers have a rule: "Never put anything down a marine toilet that hasn't been eaten first." And that, of course, includes feminine items. In fact, remote cruisers do not even put soiled toilet tissue down a marine head. They simply deposit soiled toilet tissue (and feminine items) in a receptacle such as a

waste basket with a liner bag or a ziplock baggie, but not down the toilet. We and San Juan Yachting highly recommend you follow this rule. And since we've been recommending this, we've had almost no incidents of plugged heads!

Little Toot does not have a Y-valve. All effluent automatically goes into the holding tank. San Juan Sailing staff will discuss holding tanks and pump outs on your arrival. Our one plea is this--please monitor it carefully! Exploding or leaking sewage is most unpleasant! The tank should be pumped out, filled with fresh water through the deck fitting to rinse, then pumped out again. Thank you! When appropriate, you may wish to use the macerator. The switch is located to starboard of the lower helm wheel and is controlled with a key.

11. Heater: The heater is a diesel forced air cabin heater with the thermostat mounted on the port side bulkhead of the main salon. To operate, simply turn the thermostat to the "on" position. The heat is dry, comfortable, and on those occasional rainy days or cool evenings, makes a huge difference in cruising comfort!

When it's cool, we recommend warming the boat before turning in for the night, with the last person to go to bed instructed to turn the diesel heater off before retiring. (Otherwise, the boat will get too hot and the electric fan in the diesel heater will drain the house batteries. The comforters will keep you warm in bed.) Then, the first one up in the morning can simply turn the cabin heater back on.

12. Refrigerator: The refrigerator must be turned on at the electrical panel. Then find the thermostat located on the back wall inside the refrigerator. This is a well-insulated refrigerator and will function well when adjusted to level 3 on the dial, if turned all the way up, everything will freeze! We leave the refrigerator on all of the time, as it does not use a lot of electricity.

13. Shower: Water is heated automatically by the engine running under load (after about a half hour) but running it at idle in the morning won't do it. The hot water is stored in the insulated 7 gallon tank located in the engine compartment. It can also be heated electrically when on shore power. Experienced cruisers know the sailor's shower: get wet, turn it off. Soap up. Rinse off. If we overflow the shower basin we've used too much water. There is a sump pump in the head located on the starboard side of the sink. It is an on/off switch.

14. Stove:

The propane stove has three burners and an oven. Propane is a hazardous gas, and requires caution. For your safety, please follow these procedures:

1. Open the faucet-like hand valve at the propane tank all the way open.
2. Make sure all stove control knobs on the stove are in the "off" position.
3. Turn the electric solenoid switch located near the electrical panel to "on". A red light will appear.
4. Light a match or butane lighter, push in the stove control knob in and turn to the left to high. The burner should light immediately. Hold the knob in for 2-3 seconds (warming a thermal couple) and release. You may then operate the knob like a normal stove.

5. When finished with the stove, shut off the burner(s), then shut off the solenoid switch. (What little propane remains in the line from the tank to the galley is insignificant, and even if this tiny amount of propane were to leak into the cabin, it would not cause a problem.) No need to shut off the propane tank during the day.
6. At night, it's recommended that you turn off the propane tank with its faucet-like hand valve. That way, should the solenoid valve fail, there's no chance that propane will leak into the vessel. (Since propane is a deadly gas, you'll sleep much better!) Then, the first one up in the morning can go out to the tank and turn it back on to start the water boiling for the coffee!

15. Water:

Water pressure: The water pressure switch is located on the main electrical panel. We have two tanks with a total of 77 gallons water tanks, located on the port and starboard side of the forward engine compartment. If you go down below you can see the water levels in the tanks to see how much is left in the tanks. When you fill the tanks you need to fill both side, there is a cross over connection but it will not fill both tanks at the same time you are filling from one side. State parks have no pressurized water to refill tanks, but all points of civilization do. If your crew does not let the water run continuously while they brush their teeth or shave, you shouldn't have a problem.

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