

# Notes from the Owners of “Wave Dancer”

*Welcome aboard Wave Dancer! We hope you enjoy her as much as we do. We are immensely pleased with this fine boat, have had many wonderful times sailing her, and have tried to equip her with the quality of gear befitting her fine heritage. You will find she sails beautifully and is very well balanced. She keeps her speed in light air and is very stable in heavy weather. We have learned some "nuances" of sailing, which we've outlined for you to make your cruise more enjoyable. Our FIVE favorite things about Wave Dancer are:*

- 1. The roomy cockpit and interior with an L-shaped galley allows the chef to face forward and join in the fun.*
- 2. The two staterooms allow for more privacy and the dinette converts to a comfortable double bed if you require more room for guests!*
- 3. Both the main & jib are roller-furling and allow for easy single-handed sailing without leaving the cockpit.*
- 4. The very large “head” and shower area.*
- 5. The dodger, bimini and the extra wind and spray curtains give great protection from the elements both at anchor and while sailing.*

*We've been sailing the San Juan Islands for 25 years and are excited to continue exploring aboard Wave Dancer. We are continually amazed by the marine life we see, and have thoroughly enjoyed the cozy anchorages and quaint towns. Leave us a note in the guest log and tell us if you found someplace special.*

*Happy Sailing! We're delighted to share our sailboat with you!*

**Gary & Phyllis Newman**

Owners

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**Anchors** - Our boat is equipped with two anchors, one forward and another located in the aft port locker. The primary anchor is a 35# plow with a 70' chain and 200' rode, which we find holds well in a variety of conditions. The secondary is a Danforth (located in starboard aft boatlocker in a yellow bag) which is smaller and with slightly less holding power than the primary, but perfect for a stern anchor. Primary Chain length is 70 feet, the rode (line) is marked with tags of 30' increments. The scope to use in the islands is 3 or 4 to 1, definitely not 7 to 1. Release the anchor sufficiently upwind so that the actual position of the boat (and swing circle) are clear of other boats, rocks, or other obstructions. Check the tide tables and correction for the local area. Most coves are 15'-30' deep, so expect to pay out about 50'-100' of rode. After you have paid out the suitable amount of rode, 30 seconds of idle reverse both sets the anchor and will test its holding power. The anchor windlass requires power from a switch on the navigation station control panel. The hinge type circuit breaker for the windlass is located in the aft starboard locker on aft wall of locker. Do not use the windlass to pull the boat to where the anchor is set. Instead, head the boat under power toward the anchor while taking up slack by hand. Finish retrieving the anchor using the up button on the windlass and store anchor securely. If you lose power on windlass set circuit breaker by moving it to a horizontal position. Power is received from the engine battery. Always operate the windlass while the engine is running or it will drain the battery. The up-down controller for the windlass is located inside the starboard side of the chain locker. **Deploying the anchor:** With an electric windlass, it's important to deploy the anchor into the water by hand. Pay out enough slack in the chain so you can hand deploy the anchor into the water about one foot below the water surface (by having the anchor slightly in the water, it will buffer the pendulum action which could swing and chip the bow). Once the anchor is in the water, use the electric windlass to lower it to the bottom. For storm conditions (sustained wind of 25+ knots) extend your scope to 7 or 10 to 1, provided you have room to leeward. Otherwise, set two bow anchors (using the secondary anchor in a V-type pattern for extra holding power).

**Retrieving the anchor:** Retrieve the anchor up to where you can see it. Then by hand, retrieve the anchor from just below the water onto the bow roller. Do not use the windlass power to take up the last few inches of slack. Take your time, the anchor chain dropping off the gypsy sometimes bunches up under the windlass and you might need to push it down several times with your foot or the mop handle to the bottom of the chain locker to prevent the chain from jamming in the windlass. **Securing the anchor:** Once the anchor is on the bow roller, be sure to secure the anchor with a keeper line. Snap the line through a link in the chain nearest the anchor, then lead the line straight back and tie off on the cleat. **Stern tie line:** A six hundred foot reel of line for stern ties to shore around a tree or a rock is located in the aft port cockpit locker. You can use the mop handle through the reel to help you bring your line ashore. If you want to be able to leave your anchorage easier, run the line back & tie off to the cleat. When leaving, just pull the line in. Please do NOT cut the line!

2. **Barbecue** - The stainless steel propane barbecue sits on the stern rail. Use the hose in the propane locker to connect the propane to the BBQ. It's a simple connection. Before lighting the bar-b-que, turn it toward the aft exit...away from the GPS antenna. Please remember to turn off the valve to the BBQ and the propane tank after use. Place the hose back into the locker. Also, as a courtesy to the next guest, please use the wire brush wired onto the BBQ to clean it after use. Thank you!

3. **Batteries.** Two battery banks are located rear starboard locker #1 is a 12 volt for starting the engine. Bank #3 is 2- 6 volt house batteries. Wave dancer is equipped with a no touch blue sea link battery management system. Battery voltage can be checked at the NAV Station. The gauge is located under the cabin heat controls. Indicator 1 reads start battery. Indicator 2 ignore. Indicator 3 reads house batteries.

**NOTE: This is a no touch hands off system**

4. **Berths.** Our boat sleeps 6, 2 in the private cabin forward; 2 in the aft cabin and 2 in the main salon. The table adjusts to sleeping position by lifting up from below...there's a metal bar that you pull out to drop the table.

5. **Bilge pumps.** There are 2 bilge pumps. The emergency bilge pump is located port side rear exit. The handle should be kept in the cockpit alcove for quick access in event of emergency, but we keep it stored in the starboard forward locker under lid when not sailing. The electric bilge pump does have an automatic float switch. When turned on at the electrical panel it remains on, but the pump will engage when enough water comes in to cover the float switch. We like to monitor any bilge water coming in daily. The electric bilge pump can be used manually at the electrical panels. Turn the break on. Use the black toggle switch to activate the bilge.

6. **Dinghy.** The new Zodiac dinghy with V keel and solid bottom is stable, rows well, and tows with the least drag if brought close to the boat--about a foot off the stern. This lifts the dinghy bow, reduces drag, and guarantees that you won't accidentally wrap the painter around the propeller when you back up! We tie the painter off twice--a cleat tie close and the bitter end we tie onto the stern rail. Others have lost the dinghy when their cleat tie slipped loose.

As owners, we would very much appreciate your special care when beaching the dinghy. Ours are not all gentle sandy beaches. Most often they are rocky, covered by barnacles equipped with extra sharp rubber cutters. Here's what works best: launch a person off the dinghy bow as you approach shore; then offload everyone over the bow. Now lift the dinghy above barnacle height and deposit it gently on the beach. We also secure the painter under a rock or to a log—a rising tide can leave you high and dry and dinghyless! When using forced air heat system tie dinghy off on starboard side of boat.

7. **Dodger.** Our dodger not only protects the crew from weather, but it has several stainless hand holds to grab for safety. The most vulnerable part of the dodger is the plastic "glass". Please avoid touching it as much as possible. To clean, use only a sopping wet sponge, wiping very lightly with lots of water. We have had to replace the glass every few years because of those small scratches that "fog" it up. So if the glass is really clear when you are aboard, you can thank previous guests for their care. By the way, the glass' worst villain appears after sailing smartly into a challenging breeze. The salt spray which collects on the glass dries in the wind, leaving behind tiny salt deposits that obscure your vision. Please don't let an energetic crew member wipe off those salt crystals. They act like sandpaper on the glass! Instead, let them "flood" off the crystals with a pan of fresh water from the galley. We have installed removable side curtains for extra warmth, wind and rain protection. You may decide on hot days to open the center panel of the dodger for a refreshing breeze.

8. **Electronics:** all electronics are activated by breaker switches on the panel left of the NAV Station.

- **Cellular Telephones.** Our boat is equipped with a 12 volt cigarette lighter type outlet for recharging your cellular telephone. It is located (bottom of electrical panel).

- **Depth sounder.** The digital depth sounder will not give accurate readings beyond 200'. It is designed for use in shallow waters. 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 underwater seaweed. Use the depth sounder only as an aid to navigation in shallow water. However, the key to avoiding rocks is not the depth sounder--but knowing where you are on the chart at all times. (Rocks are the single biggest navigational and safety hazard in the islands—but they are all marked on the charts.) We do not recommend using the alarm. Experience in the islands tells us that it goes off at the wrong time--usually the middle of the night as a fish passes underneath. Wave Dancer has a fin-winged keel and draws 6 feet.. Figure on 10 to 12 feet under the keel at all times both underway and at low tide and at anchor.

- **GPS:** Wave Dancer is equipped with a Raymarine C-80 series GPS color chart plotter. To start, turn the switch on at the electrical panel labeled instruments, then auto helm. Then push the ok power button for 2-3 seconds until the screen activates. That's all we have to do. About 30 seconds later, the GPS will have acquired its satellites, calculated our position and displayed our lat/long, heading, and speed. That's all there is to it! To turn it off, again hold in the little power button a couple seconds until it beeps. If you want to experiment with waypoints, you may refer to the owner's manual on board. As a practical matter, navigating the San Juans is line of sight with the normal clear visibility. The only time you might need the GPS is in the highly unlikely event that you are suddenly enveloped by fog, which is very rare in this area (late August, early September, if at all, normally). Any fog usually burns off before mid-day. So if the soupy stuff sets in, we put on an extra pot of coffee until it lifts. Wave Dancer has a 2<sup>nd</sup> GPS at navigation station. The chart plotter is a secondary tool—charts are primary navigational tool except when you're in a tight spot and need to rely on the chart plotter.
- I.e. going to a narrow pass or approaching the entrance to a secluded cove. (With the chart plotter, you can zoom in to make something the size of a dime on a paper chart into the size of a paper back novel on your screen. You can see more detail and any hazards in the area. Your boat's position on the chart plotter is accurate to within 3 meters...about 10 feet.)
- **Knotmeter:** If the digital knotmeter shows a reading of "0.00" while underway, the impeller is most likely clogged with a piece of eelgrass. Sometimes it will float off overnight. You can also try removing it by traveling in reverse. The impeller is located under small door in floor midship. You may wish to remove the impeller to clear it if you are experienced in such things.
- **Radar:** Radar is Raymarine. The operation sequence is located on chart plotter.
- **VHF radio:** We recommend that you monitor Channel 16 during your cruise. It is reserved for emergencies and boat-to-boat initial contact. After contact, move to channels 68, 69, or 79. The Bellingham Marine Operator, formerly channels 28 and 85, are out of service until further notice. They told San Juan Sailing that they are converting to a digital format, but the cell phones may make the marine operator obsolete in many regions. If you are in serious trouble and can't be at radio push the red button on radio. It will send your position to coastguard.

We listen to weather channels 1, 2, 3, or 8 (whichever gives the best reception) before we sail 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". You will hear "Strait of Juan de Fuca" (lies south of the San Juans), "Georgia Strait" (lies north), and "Rosario Strait" (runs through the eastern part of the San Juans). Most often the weather report you will be looking for will be introduced as the "weather forecast for Camano Island to Point Roberts".

San Juan Sailing monitors channel 80A during office hours (closed Sundays) but it will be difficult to hail San Juan Sailing after a good day's sail into the islands due to these beautiful islands getting in the way of the signal. Typically, cellular phones are the best means of communication. You can reach the maintenance professional, (Steve Pinley) at (360-303-6668) (cellular), or owner Roger Van Dyken at 360-224-4300 (cell phone) or 360-354-5770 (home). The San Juan Sailing office is 1-800-677-7245.

## 9. Engine. Starting--

1. Check the oil level. The dipstick is easily accessed on the starboard side access engine panel which is located in the head. 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; it is stored in the engine compartment. Check the level again. This is not a car engine where you can add a quart at a time. Over filling is the worst thing you can do to a diesel engine. 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 of minutes. We change the oil at 100 hour intervals. With the cover removed, this is an excellent time to check the coolant levels, but never do so when the engine is hot.

2. Make sure the gearshift lever in center pull knob located under shift it is now in neutral.
3. Push the accelerator handle forward to about ¼ throttle.
4. Turn key to the right. The buzzer should sound. This is the warning buzzer you would hear if the engine overheats or if there is loss of oil pressure.
5. Press the starter button above the key. This engine usually fires right up in just a couple seconds.
6. If it doesn't fire right away, give a little more throttle.
7. After she starts, gradually ease the throttle back to just above idle about 1300 RPM for warmup; then check for water gurgling out the exhaust.
8. Please allow 5 minutes of warm up before placing a load on the engine. Pushing a cold engine is very hard on diesels.
9. When engine is warm and ready to go, push the button in and move the shift level forward to go ahead and back to go in reverse.

**Reverse:** Wave Dancer backs easily with no noticeable prop walk. (Hang on tightly to the wheel in reverse. If not, water pressure on the aft edge of the rudder will slam the rudder over to one side or the other.)

**Forward:** Wave Dancer has a large and deep rudder. She's very quick on her feet and turns in a narrow radius.

**Docking:** Wave Dancer carries momentum well, so your final approach and turn into your slip can usually be done with the shifter in neutral. You will certainly need no more than idle speed forward unless you're in high winds. Never turn off the engine until the vessel is securely tied at the dock. Remember, you'll need to use your engine in reverse to completely stop the boat. When coming into San Juan docks, or you would like assistance upon arrival, simply hail San Juan Sailing on the VHF Channel 80. Most marinas in the islands will help you if you ask for assistance. Asking for docking assistance, especially in windy conditions or with an inexperienced crew is a sign of prudent seamanship.

Operation: We have found this little 27 HP Yanmar engine to be very reliable. We have insulated the engine compartment to muffle engine noise. Cruising speed is 6 knots at 2500 RPM. With the 30 gallon fuel tank, at a half gal. Per hour or about (60) hours of cruising. Please do not exceed (2500) RPM because it's hard on the diesel to push past cruising hull speed (at very little increase in speed). We find the engine will have least vibration at (2200RPM), so go ahead and bring it right up there.

Engine Overheat: If the buzzer sounds while the engine is running, immediately check the oil pressure and temperature gauges. If oil pressure is flat, shut down the engine, check the oil level, and contact San Juan Sailing. (We have never had an oil pressure problem and we hope you don't either). Most likely a buzzer means the engine has overheated. Check for water gurgling out the exhaust. If gurgling, check the coolant level. If there is no water gurgling, the water strainer is likely plugged with eelgrass. Eelgrass looks like an exploded view of lawn clippings. They are about 3 feet long, brownish green, flat and about 1/2 inch wide. Look for them in two places--floating masses undulating on the water, and in "tide lines", those soapy lines in the water that contain other intimidating debris as well. Best solution here is prevention--keep an eye peeled for eelgrass masses, tidelines, and semi-floating logs and steer around them. If eelgrass gets sucked into the engine cooling water intake, it jams the raw water strainer located (aft of engine under aft berth). Use flashlight to see if this is the problem. To clear it, close the seacock located (aft of strainer). Remove the filter element of the strainer. Remove the eelgrass. Close cover of strainer. Open the seacock to assure that it is not clogged. Close it again and carefully reinsert the filter element. Reinsert and tighten simultaneously to assure the ((lid or casing)) remains flat on the strainer. Reopen the seacock. If the engine overheats again upon restarting, check that the seacock is open and check the lid seal. If it draws air, it won't draw water. Only after you shut down and cool the engine should you check the engine coolant.

Engine shutdown: Please never touch the power switch while the engine is running! First make sure the engine is at idle and the gearshift in neutral. Then pull the fuel cutoff handle by your right ankle. When the engine dies, turn the key off.

10. **Fuel Tank.** The (30) gallon diesel tank (port aft cockpit locker). The engine burns (one half) gallon of diesel an hour. The fuel gauge is located under the port side steering station below the key. If it dips much below half, add fuel (running out of diesel involves a lengthy bleeding process that you would really rather not do.). Please be very careful when fueling. Never allow maximum flow from the filler hose. If you do, the fill tube will surge and diesel will spill onto the hull from the vent located (starboard aft), and put you into the ever-caring hands of the EPA. Fill slowly and carefully. When the pipe begins to gurgle like it's full, you are probably full. You may also be able to see the diesel when looking down into the fill tube. Check the side vent and, with soap, wipe up any excess fuel to avoid yellowing the hull and polluting the water. Also, be very careful of drips when removing the hose. Diesel and shoe bottoms are very slippery and a dangerous combination. After wiping, please use soapy water to scrub down any drips. \*\* EXTRA DECK FILL CAPS are located in the NAV Station in case one is lost.

11. **Head and holding tank:** Please do not put anything in the toilet that has not been eaten. **All sailors deposit toilet paper and feminine hygiene products in a plastic bag, then deposit in a waste basket, not down the toilet.** The head has a 30 gallon holding tank located under the starboard locker. San Juan Sailing staff will discuss holding tanks and pumpouts on your arrival. Our one plea is this-- please monitor the holding tank carefully! Exploding or leaking sewage is most unpleasant! The tank should be pumped out, filled with fresh water through the same fitting to rinse, then pumped out again. Thank you! When appropriate, you may wish to use the macerator. The switch is located on the electrical panel. On the navigation station there's a button—push to activate macerator. We recommend you use the macerator when gage shows half full.

12. **Heater :** The heater is a diesel forced air cabin heater with thermostat mounted nav. station. To operate, turn switch on adjust temp to high with dial. We like to burn hot so heater doesn't carbon up. The heat is dry, comfortable, and on those occasional rainy days or cool evenings, makes a huge difference in cruising comfort! When warm turn off. Repeat as needed.

13. **Refrigerator:** The refrigerator must be turned on at the electrical panel. Then find the thermostat located inside right side. This is a well-insulated refrigerator and will functional well when adjusted to level 3 on the dial, if turned all the way up, everything will freeze! While at anchor, it's best to run during the day to keep house battery charged. Turn it off after dinner.

#### 14. **Sails and rigging:**

Mainsail - The mainsail is easily furled out by pulling the blue line marked furl out on cabin top. All the reefing controls are on the blue line marked furling in pull till you are happy with the sail position while letting the out haul run in. When furling in main a little tension on out haul will give a tight wrap on main. Do not furl sail past blue sail cover. You may have to go on deck and pull out haul by hand to get sail started.

Headsail - The jib is on a roller furling. It has good sail shape at the full out position. During periods of heavier winds, furl the headsail as desired. Boat heel will be greatly reduced when sailing under reefed main and partially furled headsail in winds over 20 knots. Please note that slight tension on the roller furling line when deploying the headsail, and on the sheets when furling, prevents problems from either a rat's nest on the drum or "candy striping" of the furled sail.

**Sailing Characteristics:** Wave Dancer is a delight to sail. Her sloop rig makes for easy sail handling, and gives a variety of options for various weather conditions. Wave Dancer is a cruiser that handles well under power with a close turning radius and little prop walk. her all around perfect breeze is 10 to 15 knots, heel at 20 to 30 degrees. Full sails can easily be carried in winds to 15 knots. above that, partially furl the jib and main.

16. **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 6 gallon tank located under the port side of the seating area.. It can also be heated electrically when on shorepower by switching the breaker on for the water at the NAV Station. Turn sink

taps to desired temp. Pull the knob located on shower faucet. This routes water to shower. 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! The basin will drain by itself. There is no sump to pump. CAUTION: the engine can heat the water to scalding temperatures! There is a shower at stern starboard side.

When under sail in heavy weather, turn head, sink & seacock off inside the toilet paper door.

17. **Stove:** The gimballed propane stove has 2 burners & oven. Propane is heavier than air and requires caution. For your safety, please follow these procedures:
1. Open the hand valve on the propane tank all the way open and very slightly snug.
  2. Make sure all stove controls are in the "off" position. Turn on LP Gas solenoid switch at the electrical panel NAV Station. The second propane switch is in the galley on the right side of the sink cabinet.
  3. Turn knob to the flame icon. Push knob in while pushing the spark button when lit. Turn to desired heat.
  4. When finished with your cooking, immediately turn the electric solenoid switch off, for your own and the boat's safety.

Please note that both propane valves (and one control) are located in the propane locker in the aft of the cockpit, which is vented and isolated from the rest of the boat. Any leaks there will move down, out, and away from the boat.

San Juan Sailing staff fills the propane tank every 2 weeks. One tank normally lasts much longer than that.

18. **Water:**

Water pressure: The water pressure switch is located on the electrical panel. Please switch this off when motoring or sailing. You could burn out the water pump should one of the tanks run dry (and you would not hear the pump running over the sound of motoring or sailing).

Water tank: We have 1-75 gallon, located below the v- berth. 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, and shower you shouldn't have a problem.

19. Spare parts are located in the wet hanging locker at the aft wall of the head.
20. Tools are located starboard under the seat cushions in the locker.
21. Safety equipment located starboard under seat cushion at NAV table. Fire extinguishers: 1. aft cabin above hanging locker 2. under cabin stairs

Other safety equipment:

Fog Horn—located in NAV Station

Emergency Tiller & Radar Reflector—located starboard cockpit storage area.

Access for the emergency tiller is in the floor panel behind the wheel.

Emergency Bilge pump handle located under the lid of the starboard cockpit storage. The manual bilge pump is located port side of the aft exit.

22. Wave Dance is equipped with a 4 stroke Honda 2 HP outboard motor. Warning: Do NOT add oil to the gasoline mixture. The fill cap is located at the top of the engine. As a courtesy, we have an additional red spare gasoline container tied into the dinghy. Warning: Keep the spare gasoline container tied into the dinghy. Never store gasoline in a locker lazarette or any other storage area on board your vessel. \* \* \*

We have continually improved wave dancer for our own and your enjoyment. Her sailing ability, both in light air and in a blow, her very comfortable cockpit, her ample storage, roominess below, and just the generally cozy feeling we get when aboard. We have installed an inverter for the TV and DVD player so you may enjoy a movie or games while at anchor. The DVD player is located starboard V berth above closet. You may use the DVD/TV on shore power or 12 volt by turning the stereo breaker on at NAV Station. New this year is Zodiac dingy and extra protection side curtains for the cockpit. We earnestly solicit any suggestions for further improvements and hope you enjoy her as much as we do. Thank you in advance for taking special care of her! We're delighted to have you as our guests!