

# SPIRITED AWAY

## Jeanneau 409 Owner's Notes



# Welcome Aboard!

Dear Charter Guests:

Spirited Away is a Jeanneneau 409. This innovative design quickly became one of the most successful offerings from Jeanneau and one of the most popular charter yachts worldwide. Of particular note is the Phillipe Briand designed hull with its hard chines that start at the stern and carry forward about one third of the hull length. This design serves two purposes. First, it increases interior volume allowing for two spacious double aft cabins under the cockpit. Second it provides form stability allowing for excellent upwind performance. We have found her to be a fast, capable, and comfortable Northwest cruiser. Here are some highlights:

**Accommodations:** Three double cabins with two heads. My wife and I are thrilled that our daughters now each have their own rooms! Spirited Away is ideal for 6 but will sleep a total of 8. The forward cabin has an en-suite head and shower. The main head has a separate shower stall.

**Solar Power:** 375 Watt solar charging system virtually eliminates the need for shore power or a running engine to charge batteries.

**Filtered Water:** Drinking water at galley sink is carbon filtered. See the section on “water”. We have tried to eliminate the problem of single use plastic by bringing “Drinking Water”. See the section on “Water” in these notes.

**Cockpit:** Dual carbon fiber helm stations complement a teak sole and teak-trimmed seats. The walk-through transom and wide swim step provide easy boarding from dock or dinghy. A large, sturdy drop-leaf table is the platform for many memorable meals.

**Sail plan/Sail handling:** The first time I raised the mainsail on Spirited Away, I felt guilty...like I was cheating. The two-speed **electric halyard winch** takes all the hassle out of raising the main. The lazybag make dousing as simple as releasing the halyard. With only one set of cockpit winches, the first tacks and jibes can be a bit of a tongue twister. You'll want to review the procedure I find most effective.

**Electronic Navigation:** State of the Art suite of electronics including a 9-inch B&G Zeus Multifunction Display (MFD) chart plotter with 4G HD Radar overlay, AIS Transponder, and WiFi to get remote data on your iOS/Android device. A Bluetooth sound system lets you pair your own device.

**Engine/Max Prop:** The 40hp Yanmar provides plenty of power to cruise between 7 and 8kts. The Max Prop minimizes propeller drag while under sail. The propeller is lefthanded although, the positioning of the propeller with the Saildrive reduces “prop walk” significantly.

**Aluminum RIB Dinghy with 9.8 hp Electric Start Outboard:** You need not dread starting this outboard. The electric start is as simple as connecting the battery and pressing a button. The aluminum hull pushed by a powerful 9.8hp cuts through chop for a smooth ride while exploring. For short distances, the aluminum hull rows very easily and with the “V” keel, tracks well. The outboard crane makes handling the motor easy.

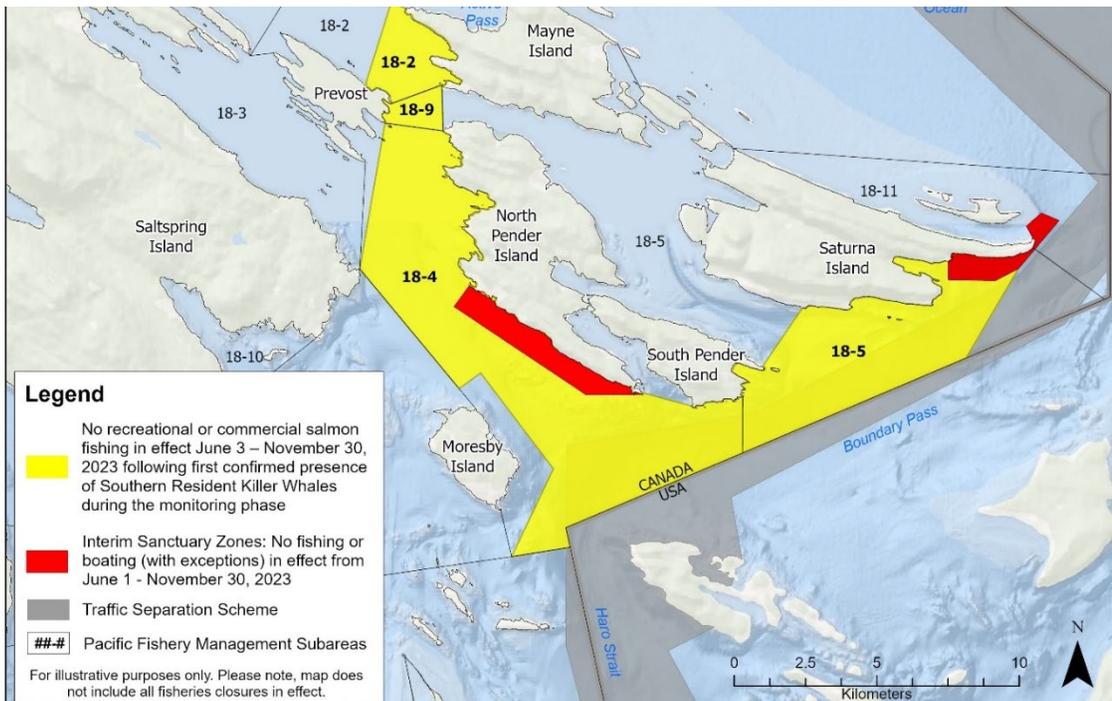
**Companionway Drop Board:** Is stored in a dedicated spot in the aft compartment.

**Spirited Away is a Pet-free, Smoke and Vape Free Vessel.**

## Being Whale Wise

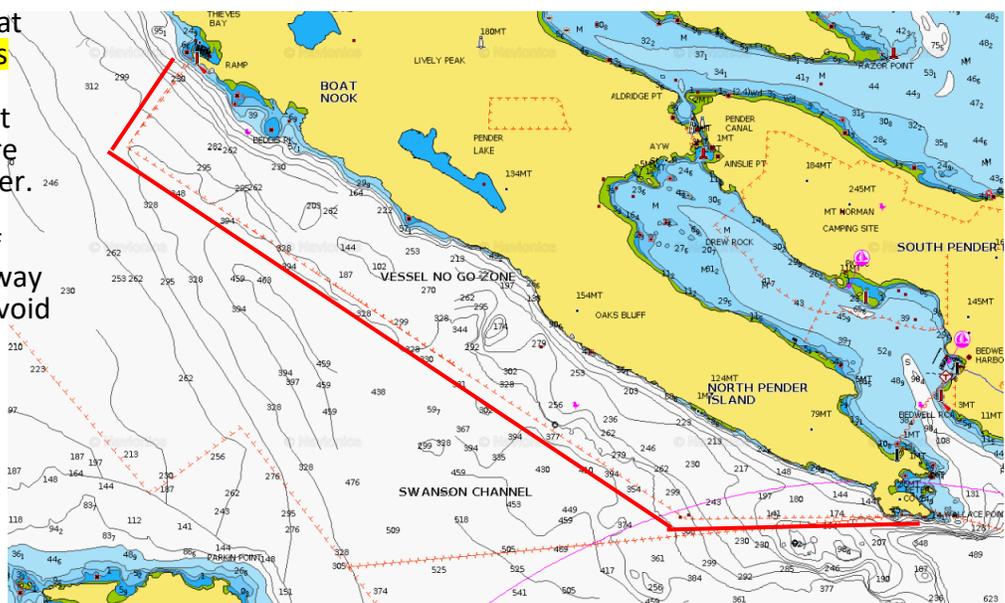
Our local Killer Whales are a wonderful part of the local family. But they are having a difficult time surviving due to declining salmon runs. These whales use echo location to find and catch their food. Therefore, noise pollution from boats and ships make it harder for them to thrive. In an effort to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

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



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

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



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# 1. Spirited Away Specifications

Make	Jeanneau
Model	Sun Odyssey 409
Length Overall	40 ft
Length at Waterline	36 ft
Beam	13 Ft
Draft	6ft 11in
Displacement	
Mast Height Above Water	63 ft
Mainsail Area	
Furling Genoa Area (135% overlap)	
Fuel	53 Gallons (200L)
Water	
Forward Tank           #1	87 Gallons
Starboard Aft Tank   #2	53 Gallons
Hot Water	10 Gallons
Holding Tanks	2 X 21 Gallons
House Batteries	4 AGM 420Ah
Engine Batteries	1
Hull Number	IRINT147F516
USCG Documentation Number	1263354
(Under mid-ship floor board)	
MMSI	367686170

## 2. Special Requests

Please return items to their proper location. If you are unsure, please look at the vessel inventory for guidance.

If you fry anything on the stove, please use the splatter guard.

No candles please. They leave soot on the interior surfaces.

Do not set hot pots and pans on unprotected surfaces. The galley is small, if you need to remove a hot pan from the stove, set it on a potholder or folded towel.

Brush long hair outside.

Cover all instruments and sails when not in use. UV is highly destructive. Covers will greatly prolong life.

Please do not allow Genoa Sheets or the Main Sheet to run across the composite steering wheels. You will wear through the finish and may be charged for their damage.

Please **No cellophane tape on any plastic surfaces.** The residue eventually becomes permanent.

Please do not shove ice bags in the onboard freezer. There is a cooler provided for your use located in the aft compartment in the cockpit under the floor.

When you use something, please put it back in the proper location. This is a courtesy to other charter guests. Locations can be found in the inventory section.

## 3. Emergency/Safety Equipment Locations

You will want to familiarize yourself with the location of all emergency items prior to departure.

<u>Fire Extinguishers:</u>	Total of three. One located in each sleeping cabin mounted on the bulkheads
Emergency Tapered plugs:	Attached to each thru-hull (see diagram)
Emergency Tiller:	Port Cockpit Locker
Bilge Pumps:	Two. One electric on an automatic switch. Circuit breaker on electric panel should always be at "Auto". One manual located in the port-aft section of the cockpit. <b>Handle is in the Port Cockpit Locker.</b> There is also a bucket in the Starboard locker.
User Manuals:	Under seat cushion port side below the electronic breaker panel at the Nav Station.
Tools:	Under Port Side Seat forward of Nav Table
Spare Parts/Supplies:	Under dinette seat forward against bulkhead
First Aid Kit:	main head cabinet above sink
Safety (USCG Required):	(6) Type V Auto-Inflate PFD's. 2 in hanging lockers in each sleeping cabin. Additional type III vests under dinette seats. Type IV throwable in Port Side Cockpit Locker. Flares with operation manuals. Air Horn is in the aft compartment of cockpit table. Lifesling is on portside stern rail.

## 4. Emergency Procedures

Engine Room Fire:	Do not lift the companionway steps or open any engine access panels. If you do this, you will introduce lots of oxygen to the fire and it could quickly grow out of control. Rather, there is a small opening in the aft starboard cabin. Pull the plug. Insert the nozzle of the fire extinguisher and pull the trigger.
Other Fire:	instruct crew to don PFD's if not already worn. Move crew upwind and away from fire. Locate fire extinguishers in each of the cabins. Aim at base of fire and deploy using a side to side motion.
Rock/log Hit, Grounding:	Immediately pull floorboards and look for water. Pull engine access panels and inspect saildrive for water incursion.

**Contact San Juan Sailing. A diver will need to inspect prior to continuing voyage. 360-671-4300**

**Leaks:**

Try to determine source of water. It could be the Saildrive, a faulty thru-hull fitting, or something else.

- Confirm electric bilge pump is running. Shower sumps can also be used.
- Have crew don PFD's
- If faulty seacock, use tapered plug to stop leak at through-hull
- If unable to keep up with water incursion, call a "MAYDAY" on the VHF. Also activate the "DSC" red button. This will activate an automatic distress call and transmit coordinates.

**Crew Overboard:**

MOB (COB) drill should be practiced regularly. There are several techniques. I recommend you drill one technique often. That way you automatically know what to do. Briefly, here are some steps:

- Take control and assign a spotter. The spotter has a single job not to take their eyes off the MOB and to always point to the MOB
- Throw the type IV. The Lifesling can be used but remember it is connected to the boat.
- Hit "MOB" on the chart plotter.
- Motor or sail to the MOB using your preferred method
- You can use the swim platform to help bring them aboard. Alternatively, you can use the engine hoist (200# limit) or the Lifesling block and tackle found in the Starboard Lazarette.
- Immediately treat for hypothermia

**Boarding by US or Canadian Coast Guard:**

Usually, this is a routine safety check. Ships papers are in the binder in the Nav station. Also show them the "Safety Check" form in the binder next to the documentation certificate. They will check for USCG required gear: Appropriately sized PFD's for each person aboard (Type V's must be worn to be counted), Type IV throwable, Air-Horn, Fire Extinguisher, Flares (3 req'd) with current dates. They may ask for the location of the official number. It is under the mid-ship floorboard. They should give you a record of the boarding. Put this document in the binder with the operating papers. Let SJS know that Spirited Away was boarded.

**Special Note**

**Cannabis:**

Under no circumstances is Marijuana or any Cannabis derivatives considered illegal under US federal law to be on board Spirited Away. Although it is legal in Canada and under Washington State Law, the Cruising grounds in the US are under federal jurisdiction.

## 5. Anchoring

### QUICK NOTES

- Primary Anchor: 20kg (44#) Lewmar Claw (Bruce Type) with 300ft 5/16 high test galvanized chain.
- Secondary: Fortress (Danforth style) with 30 ft of Chain and 170ft of 5/8" Nylon rode stored in Port side cockpit locker
- 4 – 1 scope is typical for Primary, 5 – 1 for secondary
  - Add 5ft bow freeboard to scope calculation
  - Allow for highest tide for the duration of your anchor stay
- Check tides! We have up to a 15ft tidal range!
- Engine must be running to operate windlass
- Windlass circuit breaker is located on the battery control panel in starboard aft cabin
- Test that the windlass is operating by “bumping” it in “down”
- If the gypsy will not move, the “anti-reverse” pawl may be engaged. See diagram below.
- Boat must be stationary when deploying anchor to avoid damage to plumb-bow
- **Use the anchor bridle** to relieve stress on the windlass (stored in the anchor locker)
- **Chain Counter at Helm** I discourage operation of the windlass from the remote chain counter. Best to station a crewmember forward to monitor the anchor while lowering or raising.

### Fleet Standard Marking for Primary Anchor

- 2ft length of line woven through chain links every 25ft
- 2 – 2ft lengths woven through chain every 100ft.
  - 100ft, and 200ft.

### Paint, Fading but visible

- 10 ft Yellow at 100ft
- Yellow every 50ft after that
- Red last 25ft

### Secondary Anchor

- Fortress, aluminum Danforth style in port cockpit locker. 30 ft chain with 170ft of line (200ft total)
- One orange mark for every 50 ft. 1 at 50, 2 at 100, and so on.
- Chain is heavy be careful of the deck when you're using the secondary anchor.

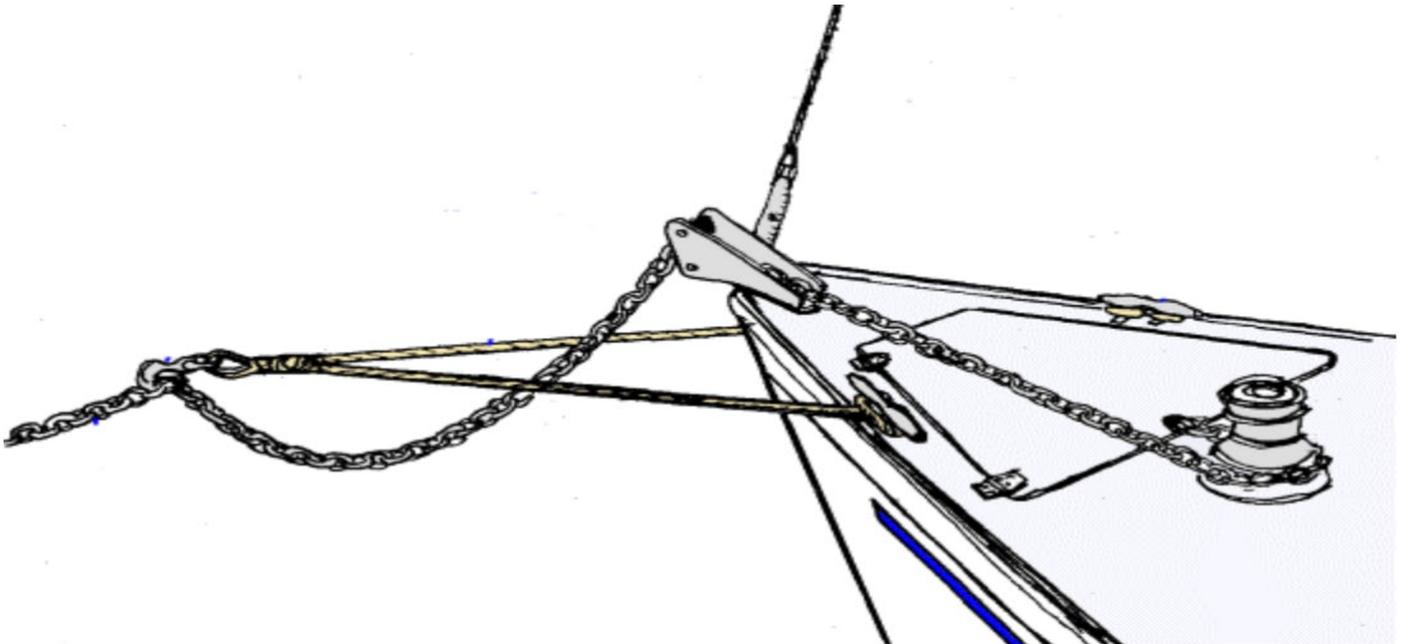
### Procedure

Pay attention to the tidal cycle for the duration of your stay. The tidal range can vary in excess of 15 feet! Use US tide tables with US charts only and Canadian tide tables with Canadian charts only. Follow the guidelines provided in the Skipper's meeting and the San Juan Sailing Skipper's Handbook. Anchoring works best with one person at the bow and

one person at the helm. The windlass is controlled by the controller in the anchor locker. Agree how much anchor chain to pay out in advance.

### To Deploy

- Ensure engine is running and windlass circuit breaker (battery panel in starboard aft cabin) is on
- Bring boat to a complete stop to avoid damage to plumb bow.
- Ease windlass by about 7 chain links
- Move anchor forward on roller by hand
- Lower anchor to bottom
- Continue to pay out chain while reversing at idle speed
- Pay out the necessary amount of chain
- **Attach anchor bridle to chain** (See diagram)
  - Pay out additional chain until anchor snubber is taught and chain is slack.
- slowly increase RPM's in reverse to 1500 RPM
  - If you 're not moving, the anchor is set
- Set Anchor Drag Alarm on chart plotter at night (if necessary).
  - Try the "Anchor Watch" app available on iOS and Android
- Consider using a trip Line



### Attaching the Bridle

- Loops through bow cleats.
- Attach grab hook to chain
- Lower chain until chain is slack and bridle is tight.
  - The grab hook will be well under water
  - The bridle lines will be tight
  - The chain will be slack

### Anchor Recovery

**DO NOT use the windlass to pull the boat to the anchor! It is hard on the windlass motor and the mount.**

- Ensure engine is running and windlass circuit breaker is on (See “Batteries” for location of breaker)
- Take up slack chain and remove anchor bridle
- Slowly move boat to anchor position while taking up excess chain with windlass
- You may hear the windlass motor slow under the load as the anchor breaks free from the bottom
  - If you hear this stop raising the chain and allow the anchor to break free on its own
- Once it breaks free, continue raising the anchor
- Once you see the anchor below the surface, make extra sure the boat is not moving such that the anchor will not swing and damage the bow
- If the anchor is coming in upside down, use the mop handle to flip it.
- Secure the anchor
- Replace bridle in port cockpit locker

## 6. Barbeque (also see Galley/Propane)

### QUICK NOTES

- Propane tanks and valves in the aft starboard cockpit locker
- Solenoid switch is located beneath the galley sink
  - Auxiliary circuit breaker controls propane solenoid
- Grill is manually lit. Lighter in the galley
- Store brush inside grill while underway
- **Clean grease tray. Grease is a fire hazard!**

### OPERATION

- Ensure tank, solenoid and valve inside propane locker are all on.
- Open lid to BBQ
- Insert lighter in hole in side
- Turn on gas at BBQ then light
- **When grilling, please protect the wood seat/cushion immediately below with a galley towel.**
- **Clean Grease Tray when finished**

\*\*Always close dedicated BBQ valve in propane locker after use

## 7. Batteries, Charging, Shore Power, Inverter

### QUICK NOTES

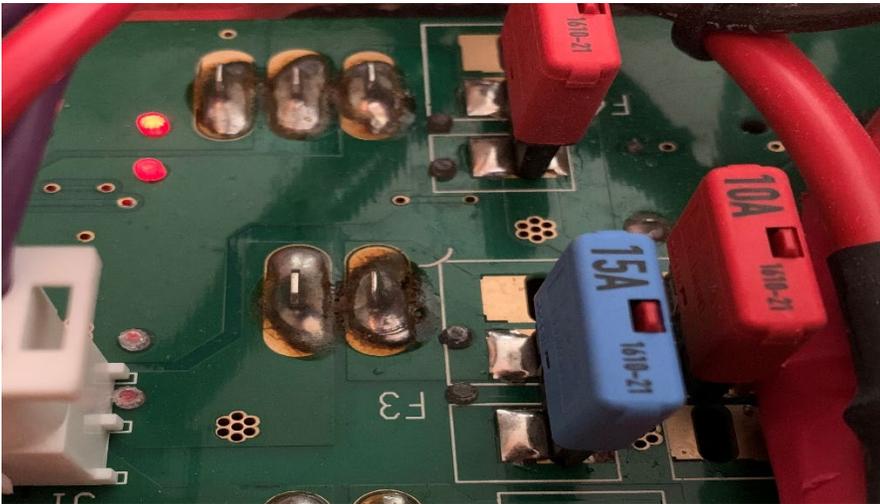
- Engine Battery is isolated from domestic/house batteries
- House bank is 420 Ah
- Solar array is 370 Watts and is continuously charging in daylight.
- With proper power management, you shouldn't need to run the engine for the sole purposes of charging batteries.

- Charging level is indicated on the Battery Monitor below the main panel. The indicator on the panel should only be used for water level and fuel level.
- Do not let the voltage fall below 40% SOC (State of Charge)
- You can “page” through the Battery Monitor to see the following
  - State of Charge
  - Starting Battery Voltage
  - House Bank Voltage
  - Current Draw (this will be negative if you are using power, positive if the solar array is charging)



## Inverter

- There is a small inverter located in cabinet next to Electrical Panel.
- Plug in cigarette lighter socket to operate.
- Be aware of current draw at anchor
- Great for charging a laptop but will not run a hair dryer
  - If you run something that is too power hungry, it will trip a “Resettable Fuse”
    - Unplug the culprit
    - Open the panel
    - Reset the fuse by pushing in the small tab



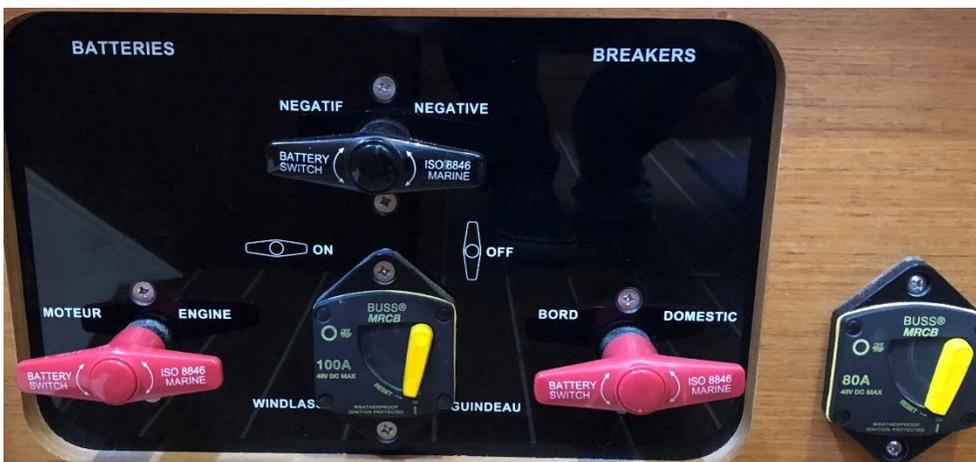
Note: The above picture is not necessarily the exact fuse you will reset. Look at all resettable fuses and push in the small tab as necessary.

### Shore Power

- 30 Amp
- Prior to connecting, ensure power switch at dock is off along with the Battery Charger and AC Outlets breakers in cabin are off.
- Connect to boat first, then the power outlet on the dock. Dock breaker on, then battery charter breaker.
  - Turn dock breaker on first, then Battery Charger and AC Outlet breakers.
- To disconnect, reverse sequence. Battery charger breaker off, Dock Breaker off. Disconnect from dock then boat. Stow.

### Battery Switch Panel (Starboard Aft Cabin)

- As shown all switches are on.
- Turn 90 degrees to disconnect the ground (negative) or the positive (house/domestic) or (starter/engine)
- Smaller breakers are for the windlass and the power halyard winch



### Notes on power usage

## 8. Berths

Spirited Away sleeps 6 people comfortably in three private cabins. All are spacious with aft berths equivalent to queen-sized mattresses. The forward cabin is closer to a king.

Converting the dinette to a double berth is a two-person job. See section 8 in the owner's notes. This procedure supplements those instructions. I suggest that if you don't need a double berth at the dinette, don't lower the table. It is extremely important to replace the bolts after you raise the table

1. Under the table are two "L" supports. Lift these to 90 degrees until you feel them catch.
2. Ensure the table leaves are folded closed
3. One person lifts the table approximately 1 inch
4. The second person removes the bolts with the safety wire handles. See picture
5. Inside the beverage cabinet are two white pull handles. second person pulls the releases. After the table releases "pop", both people can lower the table until it meets the "L" supports. You may need to gently wiggle it into place.
6. To raise the table, just reverse this process. Again, gentle wiggling may be necessary to raise the table. Once the table is locked in place, lower the "L" supports by squeezing the interior spring. They can be shin busters if you forget!

### Caution

**After raising the table you must replace the bolts you removed earlier. Failure to do so will result in an unstable table surface that could collapse without warning. This can cause damage or physical harm from hot foods, sharp or heavy objects.**



Table lifted approximately 1 inch. Remove bolts to lower. Replace when raised.



"L" Bracket under dining table (open both!)



Pull both to release table



Lower Gently



Add Insert (Stored in Forward Cabin)

## 9. Cockpit

**Cushions:** There are custom cushions for the cockpit seats. There are tabs with snaps. If the cushions are out, please snap them (and make sure they are snapped). They will blow away. Especially the ones for the helm seats. These were not cheap!

**Dodger/Bimini:** Please help prolong the life of the plastic windows in the dodger. Do not wipe morning dew away with a towel or (gasp!) paper towels. Ideally, if you are not going anywhere, let the dew go away on its own. If you must clear them, there should be a squeegee on board.

I rarely sail with the connector panel installed between the dodger and the bimini. Feel free to remove it, however, know that it is very tight and can be a chore to reinstall. If you do remove it, please reinstall it for the next charter guest. Store removed connector panel in the cabin, not in a cockpit locker!

**Teak Cockpit Sole and Seats:** Please clean up spilled liquids or dropped foods immediately. Items such as potato chips and other greasy snacks and foods will stain the wood.

**Barbeque:** Also mentioned in “Barbeque”, if you are using the grill, please lay a towel or some other protection on the seat below. Also, clean out the grease tray after use. Better, line it with foil for easy cleanup. Failure to do so will create a fire hazard.

## 10. Dinghy/Outboard

Spirited Away is equipped with a 10' aluminum hulled RIB with a 9.8 h/p electric start outboard. The aluminum hulled dinghy tracks extremely well when rowing. So, if you're too lazy to lower the outboard or if you want some exercise, have at it.

**The motor will operate with or without the battery. If you are using the battery it is important that you secure the battery with the yellow strap. If you are not using the battery, it is important to cover the electrical connector from the motor.**

**The External fuel tank is normally stored in the bow locker of the dinghy** with the fuel line pre-run. The battery is usually in the port cockpit locker

Please top up the gas tank when you return. When filling at a fuel dock, remove the fuel tank and set it on the dock.

#### Dinghy and Motor Set-Up (2-person job)

- Lower swim-platform
- Move dinghy such that the transom is below the Nova Lift outboard crane
- One person is in dinghy, one is operating the Nova Lift
- The Nova Lift is designed to be used with the winch.
  - Always have a minimum of 4, Four, wraps on the winch. This way, if you let go, the friction will slow the descent of the motor enough for you to catch it.
- Unscrew mounting bolts completely prior to lowering motor
- Slowly lower motor to transom and secure with mounting screws
- Plug in Battery
- **Secure battery box and tighten webbing.**
- Fuel Tank goes in the bow locker, attach to fuel line with Quick Release fitting, ensure tank is vented (small screw in cap)
- Connect fuel line to motor and squeeze bulb pump until firm
- Kill cord connected
- Motor in neutral
- Choke out if motor is cold
- Throttle at "Start"
- Push start button
- Push choke slowly in taking about 10 seconds for full travel



**SECURE THE BATTERY**



**FUEL TANK IN BOW LOCKER**



**CAP BATTERY CABLE WHEN NOT USING BATTERY**

# 11. Electrical Panels

From right to left you will see AC Power, DC Power, and Monitoring.

## AC Power

- The analog meter will indicate a positive shore power connection
- Battery Charger should always be on when connected to shore power
- Hot Water – self explanatory.
- Outlets

Below the nav table there are two AC outlets with a GF reset breaker.

## DC Panel

- Navigation – can be turned off at night unless you are using an anchor drag alarm
- Pressure Water Pump – Turn off at night, heavy draw
- Auxiliary – Suggest it be left on as it controls:
  - AIS Transmit
  - Propane solenoid
- Refrigeration – suggest it be turned off at night while at anchor
- **Bilge Pump – Always On!**
- Deck Floodlight – As needed
- Steaming/Running lights – As needed.
  - Running lights for under sail at night
  - Steaming light turns on running lights and steaming light for lighting while under power
- 12v Outlets – cigarette type outlets in each cabin, as needed.
- Cabin Lights – generally leave on

## Monitoring

The monitoring panel shows levels of each water tank and fuel. **Refer to the battery monitor for the status of the house batteries.**

- Water, press the water indicator to check the status of each tank.
  - Reads in ¼ tank increments
  - Tank 1 monitoring seems accurate
  - Tank 2 is not reliable. For this reason, once you use everything in tank 1, take on water at your next opportunity.
- Batteries
  - See **“7 Batteries, Charging, Shore Power, Inverter**
- Fuel
  - Consider refueling when gauge falls to about 1/3 tank.



# 12. Electronics, Navigation, Communication

## Quick Notes

- SJS recommends that the Mapttech chart kit with known “killer rocks” marked in red be used at all times. It should be in the cockpit and open to the appropriate chart while underway.
- Quick Guide instructions for operating navigation equipment are stored under the nav station settee. Due to periodic software updates
- The Nav. Instruments circuit breaker is located on the DC panel above the chart table
- Return handheld and remote VHF to charging cradles each night

**Radar and Chart Plotter:** Spirited Away is equipped with a B&G Zeus-2 touch screen color GPS chart plotter and 4G RADAR. The manual is under the seat just aft of the nav table. You can also go to B&G.com and download a manual to your device.

**Turn On:** Push the on button in the lower right corner.



**Finding Home Page/Main Menu:** After turning on the Power Key, hit the Home Key to find the Chart Plotter, Radar, and Tides functions. We recommend that you only use these three functions. The Autopilot is much easier to manage at the small control at the starboard helm. Guests are asked not to set waypoints and routes because the “drift” impact of Pac NW currents require constant attention.

While you are underway, your chart plotter will look something like this.



If you pan and scroll to look at different portions of the area, simply hit “Clear Cursor” in the lower right-hand corner to bring the vessel back to the center of the chart. Note that the Blue Line is where the vessel is pointed. The Red Line is the Course Over Ground (COG) line. This is where the vessel is actually going taking in to account current, leeway, etc. **If your blue line shows a clear path but your Red Line is crossing rocks or other hazards, you need to take action.**

I also recommend clearing Routes and Waypoints entered by prior customers before your trip. This will unclutter your chart.

To do this:

1. On the touch screen, press the tile button in the upper left-hand corner
2. On the next screen scroll the selections on the left side until you see “Find” and press “Find”.



3. At the next screen select “Waypoints” or “Routes” as desired



4. At the next screen select “Delete All”

**Zoom/Centering Vessel in Screen:** With the touch screen you can move around the chart for planning or to see what’s ahead. If you do this a box will appear at the bottom right of the chart screen “**Clear Cursor**”. If you press this, the plotter will return the vessel to the center of the screen. This is what you want for navigation. Also, be aware of the resolution. Certain hazards will not show if you are not zoomed in enough. Remember the Volvo Ocean Race in 2014, one of the race boats hit a reef at full speed in the Indian Ocean because their plotter was not zoomed in enough! A tragic yet avoidable accident.



**Depth Sounder:** The B&G unit’s measurement is set in feet. There is no “Keel Offset”. That is; the transducer is set to where it is. The bottom of the hull. With a draft of 7 feet, If you’re reading 5 feet of depth, you’re likely aground.

**Knotmeter:** Speed is indicated in knots. If the knot meter shows a reading of 0.0 while underway the impeller is most likely clogged with a piece of kelp. Sometimes it will float off overnight, but you can also try removing it by traveling in reverse for a short distance.

**AIS, (Automatic Identification System):** In my opinion one of the most valuable collision avoidance tools available. AIS that identifies most large commercial vessels and many pleasure craft. Vessels transmitting AIS appear as black triangles on the chart plotter. Tap on the triangle once to see the vessel name. Tap twice to see details such as size, speed, and direction. However, not all vessels transmit AIS, so it doesn't replace the need to constantly scan the horizon and keep track of vessels around you. Spirited Away both transmits and receives AIS signals. The main ship VHF must be turned on to receive AIS. The switch labeled "Auxiliary" on the main switch/breaker panel must be on to transmit.

**To Power off Plotter (MFD):** Push and release power button in lower right corner. Then push power button on screen.

**Brightness:** Push and release power button. Adjust brightness as necessary.

**B&G Triton Instruments:** These repeaters are located at each helm.

Use the page toggle on the bottom right to view:

- Boat Speed & Depth
- Apparent & True Wind Angles. Wind Speed
- Autopilot direction/Rudder Position

**Autopilot:** The autopilot control is straightforward.

Set AUTO to engage, and STANDBY to deactivate.



Use this key to scroll pages

**VHF Radio:** The primary VHF radio is mounted at the Nav. station. There are two handheld units. The B&G handheld is tethered (wirelessly) to the main Ship's radio. It should be kept in the cockpit while underway. It will not work for a shore excursion. To charge this unit make sure it is in its cradle and it is plugged in to a 12V outlet. The other handheld is a re-chargeable, stand-alone VHF/GPS unit and perfect to take on a dinghy ride.



From Left to Right: Main Ship Radio, Wireless Remote, Handheld VHF/GPS

**Weather Reports:** For Pac NW weather we listen to channels 1, 2, 3, 4 or 8. The “Northern Inland Waters” report gives conditions for the San Juan and Gulf Islands.

- **Turning On and Off the radios** – Knob on upper left will turn radio on and control volume. Wireless remote press and hold power for 2 seconds. VHF power must be on to receive AIS signals from other vessels.
- **Silencing a DSC Alarm** – When the DSC button on a radio is pressed by another boat (or the Coast Guard) it sounds an alarm on all boats in the area. To silence this alarm, press and release the “x” key on either the main unit at the nav station or on the wireless remote.
- **Changing from High to Low transmit power** – Press the HI/LO button on the mic of the main unit.
- **To quickly get to channel 16** – tap the red 16/9 button (upper right). Holding it in for a second will take you to channel 9.
- **Accessing the weather channels (WX)** – Pressing the “WX” button on the wireless remote or main unit will take you to the weather channels.
- **Adjusting Volume and Squelch**
  - Main unit, upper righthand knob controls volume. Lower righthand knob controls squelch.
  - Wireless Remote, right side buttons control volume. Front SQL controls squelch
- **Changing between International & U.S. channel** – The radio should be pre-set to USA mode. To change between USA, Canada, and International modes, press and hold call/menu for about a second. Select “UIC”, select desired mode. FYI, I have never had a need to use Canada mode even when in Canada.
- **How to set up and use Channel Scanning**
  - To set up “All Scan” mode, hold down “Scan” on main unit or wireless remote for about 3 seconds. This mode scans all channels and checks 16 about every 2 seconds. Press “Exit” to stop on a channel and “X” to stop scanning.
  - To set up 3 channel mode (3CH). Start at 16, press “3CH”, go to next channel and press “3CH”, etc. Then press “Scan”. “X” to stop.

# 13. Engine and Fueling

## QUICK NOTES

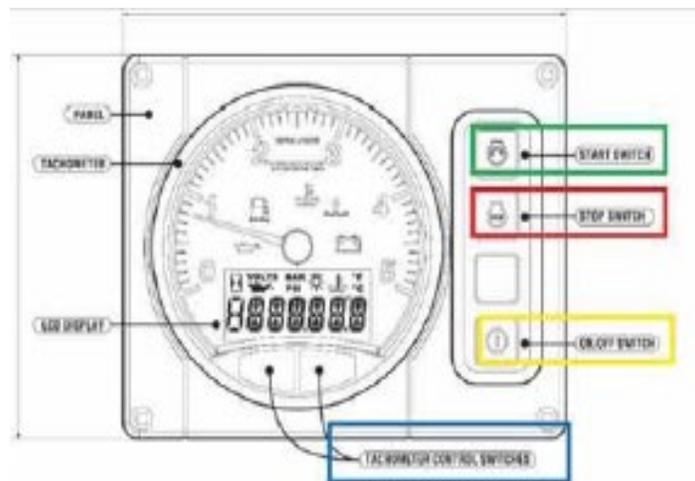
- Spirited Away has a Power “ON/OFF” button rather than an engine key.
- **The hour meter has a phantom decimal. If it reads 133.5, the hours are 1335.**
- Do not press the Power “ON/OFF” button while the engine is underway. It’s like turning off a traditional engine key, which can blow the alternator.
- Monitor engine temperature throughout the day and regularly check for water flowing through the exhaust. The Islands can be quite “grassy”. See diagram. Raw water should always be < 100 degrees. At 200 degrees there will be an alarm. If this happens, shut down the engine and investigate. It is likely the raw water filter basket.
- Run engine between 2400 and 2800 RPM
- Max temp should be 82 degrees Celsius.
- Fuel Capacity = 200 liters or 53 gal. To stay safe, Fuel after approximately 30 hours of use.
- This engine does not have a history of using fluids. Please double check before adding anything.
- The coolant reservoir just needs to be between the lines. Do not top off!

## DETAILS

Morning Routine: Through the companionway hatch give the diesel a quick visual inspection to look for oil or water in the bilge, or belt powder. The belts are located behind a black protective cover, but you can feel behind the cover for belt looseness. Fluid levels are checked weekly by Maintenance Pros, so there is no need to check fluid levels unless you are out for more than 1 week. Access to oil and coolant are noted below in this section.

There is no need to “warm up” the engine much before casting-off in the morning. Too much idling can gunk up the engine. Using a slow speed while leaving a marina or hoisting the anchor gives the engine sufficient time to warm up. However, if the wind is dying while under sail, a little engine warm up is needed.

Starting the Engine: The “On/Off” switch is like the engine key.



Stopping the Engine: Do not hit the ON/OFF power switch while the engine is running. It’s like turning off a traditional engine key while the engine is running which can blow the alternator.

- Place the engine in idle and the gearshift in neutral.
- Push the middle Stop switch, (i.e.: Engine Kill – shown in red above).

- When the engine stops you will hear an alarm
- Press the bottom power switch, the alarm will stop
- If you are sailing, place the Throttle lever into reverse to help feather the propeller blades and stop rotation

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**Indicators and Alarms (Optional)**

When a sensor detects a problem during operation, the indicator on the instrument panel will light and an alarm will sound. Indicators are located on the instrument panel and the alarms are located on the back of the panel. Under normal operating conditions, the indicators are off.

**Battery Low Charge Indicator**



When the alternator output is too low, the indicator will light. When charging begins, the indicator will turn off.

**Coolant High Temperature Indicator and Alarm**



When coolant temperature reaches the maximum allowable temperature (95°C [203°F] or higher), the indicator will light and the alarm will sound. Continuing operation at temperatures exceeding the maximum limit will result in damage and seizure. Check the load and troubleshoot the cooling system.

**Engine Oil Low Pressure Indicator and Alarm**



When the engine oil pressure falls below normal, the oil pressure sensor will send a signal to the indicator, causing it to light and the alarm to sound. Stop operation to avoid damage to the engine. Check the oil level and troubleshoot the lubrication system.

**Water in Sail Drive Seal Indicator and Alarm**



When water is detected between the seals of the sail drive, the indicator will light and the alarm will sound.

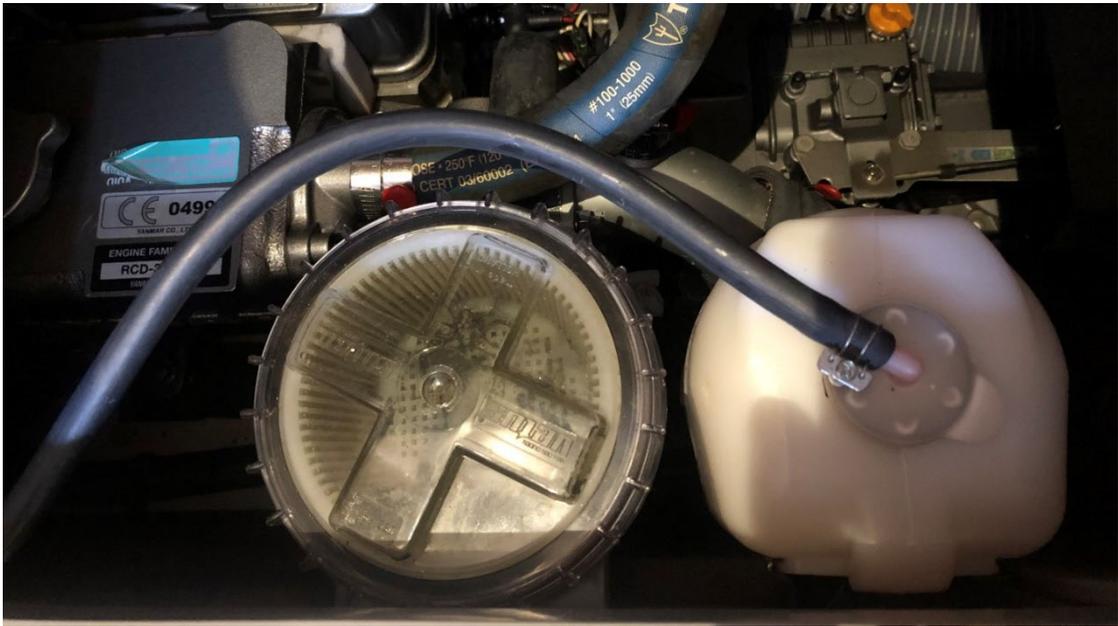
**Water in Fuel Filter Indicator and Alarm**



When the water level in the fuel filter/water separator becomes too high, the indicator will light and the alarm will sound. Drain the water from the fuel filter/water separator. See *Draining Fuel Filter/Water Separator* on page 91.

**Fueling/Fuel Consumption:** The 40 HP Yanmar engine moves Spirited Away easily at 6.5 - 7 knots over water, (not accounting for current). The engine operates best at around 2500 RPM. In this range she consumes .75 - 1 gal per hour. We've found that pushing the engine beyond 2500 RPM does little good for boat speed and disproportionally increases fuel consumption. The fuel tank has a 53-gallon capacity. It can be checked at the Nav Station (see image in #5 above). Please do not allow the fuel tank to fall below ¼ tank since float gauges are notoriously inaccurate. A good rule of thumb is to fuel before the engine hits 30 hours of use. The deck fitting for the diesel tank is on the port side in the stern line locker. The actual tank sits under the port aft cabin bunk and the fuel shut-off valve is located on top of the tank. Use a winch handle to open deck plates.

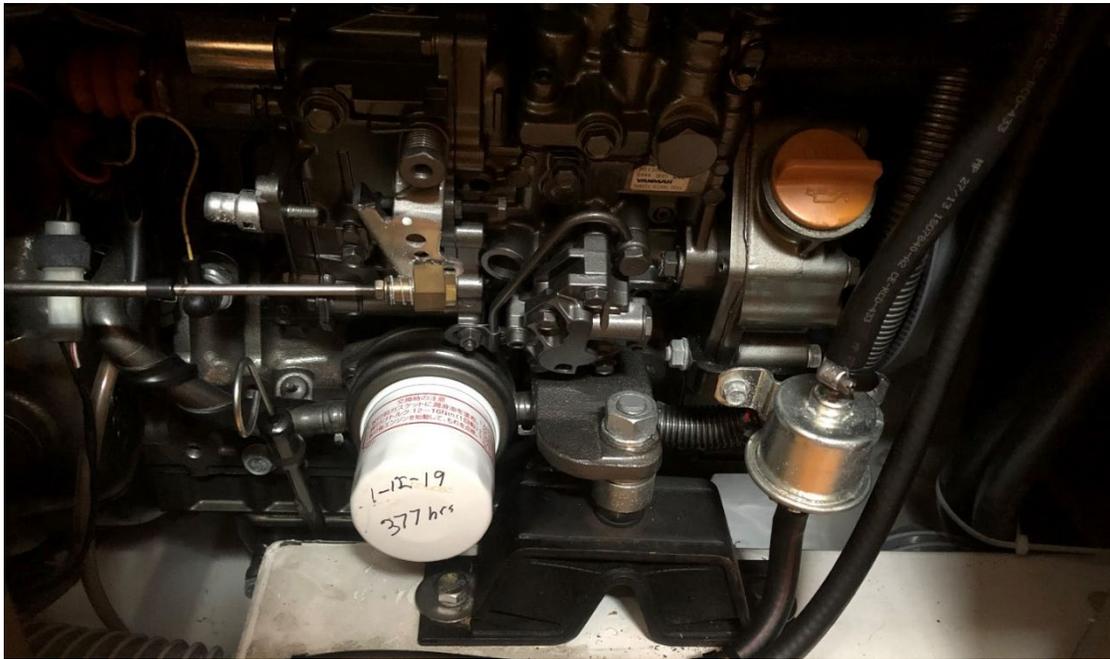
Portside Access



Sea Water Strainer

Coolant Reservoir

Starboard Side Access



Oil Dipstick

## 14. Entertainment

Spirited Away is equipped with the Fusion sound system. You can listen to AM/FM signals or pair your device for your own tunes. There is limited control at the unit inside the cabin. The main controls are at the Zeus 2 MFD at the helm station. With the unit on, the lower left-hand side, you will see "Audio". Press that and you can control the individual "Zones". Zone 1 is in the cabin. Zone 2 is in the cockpit. Keep this in mind when you're listening to music in the evenings. You don't want to be "that guy" who's ruining a perfectly peaceful anchorage for everyone!



## 15. Galley/Stove/Propane

### Galley:

Spirited Away has a well-equipped Galley. There are 8 place settings for many memorable meals. All galley equipment is in the galley area. All pots and pans are under the stove. The bank of drawers and cabinets to the left of the sink contain as follows from top down. Top drawer, kitchen knives and steak knives. Next drawer down contains an assortment of spoons, spatulas, measuring cups, juicers, etc. the bottom cabinet has collapsible dish rack, colander, cutting board, cookie sheet, and a baking dish.

The cabinets above the sink/stove area contain cutlery, dishes, serving bowls, and drinkware.

### Stove/Propane

The stove's propane tanks and valves are located in the stern starboard tank locker. The solenoid switch is located just below the sink.

The ignitor button is on the right side of the cooking panel. Press the ignitor switch then push IN the stove knob and turn to high. When the flame lights, hold in the knob IN for an additional 3-5 seconds.



## Overboard Discharge

### Illegal in US waters

In Canada only discharge in open channels with plenty of tidal exchange. Also, pay attention to “No Discharge” Zones. Grey water (sink, shower, galley is ok). Make sure you’re underway while you discharge otherwise it can be a tad unpleasant.

Simple, non-stinky procedure. Forward head, the discharge valve is below the sink. Simply turn the handle 90 degrees counter clockwise so it is in-line with the hose. It takes less than a minute. Make sure you turn the valve back when you’re done.

The aft head discharge valve is under the shower seat. Same procedure.



Valve closed, perpendicular to the line

**Do not get caught with the discharge valves in the open position while in US waters. The fine will be severe!**

## 17. Heater/Cooling Fan

The cabin heater on Spirited Away is straight forward. The control is located on the starboard side just forward of the Galley. The knob on the left controls the fan. The knob on the right is the thermostat



#### To Operate:

- Start with the heater and fan on the highest setting.
- Press the white button.
  - The white button will light up when on
  - It will take a few minutes to start.
- When you feel warm air exiting the vent in the cabin (Starboard side) near the floor, then adjust the fan and thermostat as necessary.
- If the heater is on and does not work. Look at the small green light. If it is flashing, the heater needs service. Turn power off and report to San Juan Sailing.

For cooling air in the summer, you can set the switch to the blue fan and ambient outdoor air will circulate through the cabin. Nice for cooking and buggy evenings when you have things closed up.

## 18. Refrigerator

DETAILS: Equipped with a large 48 gal. refrigerator with top and front doors. The circuit breaker is located on the electrical panel and the thermostat is inside of the refrigerator unit. We usually keep the thermostat set just past the "ON" position (See Picture). The knob is to the right of the freezer.



The unit can typically run 24 hrs a day without battery issues. If you plan to sail for a few days without much battery recharging time, consider turning the fridge off at night. There is a small freezer unit that will keep meat frozen solid indefinitely. NOTE, (a lesson learned the hard way), anything that touches the outside of the metal freezer unit for an extended period will freeze. Take care especially with cans that may burst when frozen. Water that accumulates from melting ice drains into the bilge through a small plug in the bottom.

**If you spill anything other than water, please clean (wipe) out the mess from the bottom of the fridge. Do not drain liquids other than water into the bilge. It will start to stink! Fast!**

## 19. Sails, Sail Handling, Rigging

#### QUICK NOTES

- Main should be raised before unfurling the jib
- When attaching the main halyard, be sure and route inside of the lazy jacks.
- The boat must be dead upwind when launching the main to keep batons from hooking on the lazy-jack sheets.
- "Flatter is Faster". Too much heel slows her down
- When you first think about reefing, it's time to reef.

#### DETAILS

Spirited Away is a lively performer. She easily moves in light wind but is also comfortable in the heavy stuff. We can double-hand in all conditions.

Running Rigging - Halyards are clearly labeled and lead to rope catches on the cabin house roof. All sheets run aft to the cockpit winches next to the helmsman's posts.

Mainsail Trim – Spirited Away is rigged with a traditional mainsail. It flukes into a “lazy bag” and has two pre-rigged reefing lines.

To raise the Main (always before the jib):

- It's easiest to unzip the sail bag while at dock or anchor before you depart. Positioning the traveler to the starboard side will help you reach the zipper.
- **When attaching the main halyard, make sure it is lead inside of the lazy-jack lines.**
- Un-clutch the mainsheet, vang, and reefing lines, (if you are not reefing).
- When hoisting, keep the boat dead upwind so that the battens don't hook on the lazy jack lines.
- Raise the sail, applying enough tension as conditions call for. Light air = looser. Heavy air = tighter. Don't overtighten.
- Fall off the wind and trim!

Special Note on Power Winch



The power winch is so sweet it feels like cheating every time you raise the main! There are a few things to keep in mind.

- No more than 3 wraps on the winch
  - You want the line to slip as the sail nears the top.
- Start with slow speed (right button) until the head of the sail clears the lazy jacks.
  - This way you can correct if you didn't lead the halyard inside of the lazy jack lines
- See “Batteries” for location of power winch circuit breaker.

Spirit Away is fitted with a German Main Sheeting System. This means there is one “double ended” main sheet. Be aware that, with this set up, too much line can accumulate on one side of the boat so adjust as needed. Before each day, make sure there is approximately the same amount of main sheet on each side.

Reefing the Main: The reefing system is simple, but it’s always best to reef just before you really need to. There are two preset reef points. In upwind conditions I usually reef at 15 – 16 knots of sustained wind.

- Head the boat upwind and depower the main by easing the vang and main sheet.
- Lower the main halyard so that the reefing point eye is about 24” above the boom. Clutch the main halyard.
- Pull in the reef line to tighten the sail, which will pull down the reef point eye closer to the boom.
- Adjust by balancing the amount of main halyard pulling the sail “up” with the amount of reef line pulling it “down.”

Genoa: Spirited Away has a 135% roller-furled Genoa. It should be unfurled after the Main. To deploy:

- The furling line and clutch is located just ahead of the port helmsman’s position.
- Keep moderate tension while releasing the furling drum line when unfurling the sail. This helps prevent a rat’s nest on the drum.
- The genoa tracks control the amount of twist in the sail. If you have excessive heel in moderate winds move the car back to tension the foot of the sail and spill wind out of the upper leach.
- When furling the genoa in, keep a similar tension on the jib sheets while you pull in the furling line to prevent “candy striping”.

## TACKING

Many modern boats have only a single set of cockpit winches that are shared by both the main and genoa sheets. That is, if both sails are used, both winches are loaded. This begs the question of how to tack.

Let’s assume Spirited Away is sailing close to the wind on a starboard tack. With this configuration, the port winch will hold the genoa sheet. The starboard winch will hold the main sheet. In this configuration, the rope clutch for the main sheet on the port side will be closed and the clutch on the starboard side will be open. For the genoa sheet, it will be opposite. So, the clutch for the sheet that is on the corresponding winch will be open. We do this in case you get a gust and you need to spill wind fast by releasing the sail.

Now we want to change tacks.

Since you’re close to the wind in this example, your main will likely not need much attention through the tack. So, close the rope clutch for the main sheet on the starboard side and remove the sheet from the winch. Take the lazy genoa sheet, make sure the cam is open and put a couple clockwise wraps around the now vacant starboard winch. Tack the boat as you normally would. Trim the genoa on the new, port tack. When the tack is completed, be sure and wrap the main sheet around the port winch and open the rope clutch.

I would not recommend sailing without the sheets on the winches. That is, solely relying on the rope clutches. If wind comes up quickly, you may not be able to quickly blow a sail due to extreme tension on the rope clutch.

## Jibing

As any sailor knows, the main focus of a tack is the jib/genoa and the main focus of the Jibe is the Mainsail. For the example say you are on a broad reach, starboard tack. In this configuration, the main sheet will be on the starboard cockpit winch, the genoa sheet will be on the port winch. You wish to jibe to a port tack, broad reach. Execute as follows:

- Trim jib such that it is blanketed by the main.
  - Engage port cam clutch for jib sheet
  - Remove jib sheet from port winch
- Put a couple of wraps of the port side mainsheet on the port winch put in the jaws of the winch
  - Release port mainsheet rope clutch
- Starboard side put a couple of wraps of the jib sheet around starboard winch
- Center boom using port side mainsheet.
- Helm to starboard to execute jibe
- Ease mainsheet as necessary
- Bring jib to the proper side using the starboard winch.

**If you figure out a better way to Jibe, please share. See contact at the end.**

## 20. Shower, Sump

Each head has its own shower. The main head has a separate shower stall. Be water-wise while showering and do not let the water run for no reason. As you shower, you will need to periodically pump the water overboard. Just push the black button and the sump pump will kick in. It's on a timer so it will stop on its own.

There is also a hot/cold shower at the swim platform.

## 21. Tables (Dining, Cockpit)

When open the dining table in the cabin can seat 8. There are folding camp stools, stored under the vee berth in the forward cabin, if you want extra seating.

The cockpit table will lock open with "L" brackets on each side. Be aware that you can trip the bracket with your legs.

## 22. Water

Spirited away carries a total of 153 gallons of fresh water. Please consider not adding to the plastic problem by avoiding buying "drinking water". Tanks are flushed and cleaned every season. Additionally, the cold water from the galley sink passes through a carbon filter. We have never had a problem drinking the water directly from the tanks. The forward

tank is filled on the port side forward. The aft tank is filled Starboard side, aft by where the sheets/lines are stowed. Use a winch handle to open the deck plate.

**To keep water fresh tasting follow these steps:**

- Avoid using suspect/sketchy dock hoses.
- Use the onboard hoses wherever possible.
- Attach the hose to the double filter system found in the starboard cockpit locker before water goes into the tanks.



**For freshest water, use the onboard hoses along with this contraption when filling tanks.**

To change tanks simply close the newly empty tank then open the other. Closed, the arrow on the knob will be perpendicular. Open, the arrow will be in-line. The water distribution panel is on the starboard side behind the dinette cushion.

- I suggest you use the forward tank, #1, first as it is the largest containing about 2/3 of the total capacity. Then switch to the aft tank, #2. Then, at the earliest opportunity take on water. Be sure and full use tank #2 to avoid stale water.



## 23. Starlink

Easy Peasy! Network: Spirited Away Password: Yubaba2024! Power switch in cabinet above navigation table.

**BE AWARE OF POWER USAGE** The Starlink system draws about 5 amps of continuous power. I would suggest downloading during the day when you are plugged in at the dock, running the engine, or in full sunlight. There is a switch in the cabinet above the Nav Table labeled “Starlink”. I would suggest turning this off when it is not needed. Especially at night when not connected to power. Remember, you are responsible for proper power management.



### Contact:

I welcome any questions, comments or suggestions. You are welcome to e-mail me, Doug Powers at [Spinnakerreach@gmail.com](mailto:Spinnakerreach@gmail.com) or to call or text 206-228-3684.

Maintenance Pro: Holdfast Marine, Jon Robitaille 360-393-0415