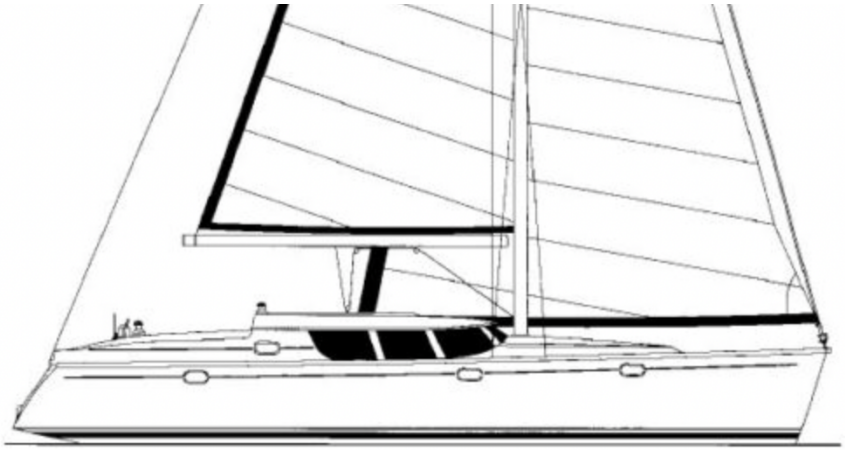
Introduction to Spiral Moon

Version 2.1 - 18 July 2025



Spiral Moon is a Jeanneau Sun Odyssey 43DS built in 2005, with three cabins, convertible to four.

Dear reader, please check that this is the latest version from the Policies section of the SID website.

Contents:

Updates:
2.01 - July 2025: Engine (when sailing, and after use)

FIRST IMPRESSION

SPIRAL MOON is longer, wider, higher and heavier than Silver Wind, and roomier below with a raised saloon (DS= deck saloon).

Accommodation: forward double, midships bunks x2, and an aft double that can divide into two.

SM is a remarkably well-kept and lively boat, with a cruising speed of 8 knots. She is stable, goes well in light winds and noticeably closer to the wind than SW.

SPECIFICATIONS

Length 13.2m	Beam 4.2m	Draft 2m	Air draft 17.4m
Fuel tank: 200 litres	Water tanks (3) 545 litres	Call sign: EIA2908	MMSI: 250014443

Displacement about 13 tonnes. Anchor is 35kg, with 60m of chain.

Propulsion: Shaft drive.

Reverse prop walk kicks the stern to port, so it's generally easier to turn the boat clockwise.

Depth meter reads from waterline. There is no waste-water tank.

BASIC SAFETY

On deck, be aware of the height of the cockpit seats (lockers): standing on them puts people at risk of a bang on the head from the boom.

Also notice the heavy metal frame above the transom: when attending to stern mooring lines, standing up suddenly can be very painful.

The high sides of the boat making stepping off from the bow or amidships risky: crew should know how to lasso a dock cleat from above.

Stepping off should be from the gates in the lifelines aft of amidships. Note the nearby grab-strap for safety. From the transom gate, step off only towards the rear – attempting to step to the finger alongside is very dangerous, especially with the outboard engine in the way.

On the binnacle, except when needed, covers should be left on the anchor windlass control and the autohelm to avoid accidental engagement.

Below deck, be aware of a) the awkward change in step depth halfway down the companionway; b) deceptive steps down from the saloon towards the cabins; and c) the change in ceiling height in the aft cabin.

ENGINE

This is a heavy boat that needs a big push to get going. We are equipped with a 75HP Yanmar 4JH3-TE.

Throttle is in neutral at 12 o'clock.

Similar to SW, with ignition key ON, lift the switch for fuel gauge to work. Rev. counter not working (May 2025). There is also an engine hours meter. Ignition key must be at ON for off-button to work.

Basic throttle settings can be judged by ear: the audible click of the handle out of neutral signals 'tick-over' (= about 1,200 revs, typically 2-3 knots). Further, a light purring sound is enough for steady marina movement, on to a more throaty growl to get going from stopped.

Typical fuel consumption (litres per hour) is advised to be:

Revs	Knots	Fuel
2,000	6	3 l/h
2,500	7	6 l/h

Speeds depend a lot on wind and wave conditions. Note how an extra knot doubles fuel consumption. Max revs is 4,000, but the hull-speed is 8 knots, so we'll rarely go to 3000 revs.

We can access the engine under the stairs for engine checks, through a small hatch on the galley side, and behind two panels in the aft cabin for the water pump and gearbox oil. When these panels are removed, you can raise the white plastic floor plate to get at the stern gland. The first-stage fuel filter (in case it needs air-bleeding) is under the floor in front of the stairs.

The fuel inlet is port-side amidships. It's a bit awkward to use the winch handle to open it, so there is a little wooden block with two prongs in the nav desk that turns it. (It also opens the water inlets.)

The fuel tank is beneath the floor between the galley and the shower bulkhead. There is a fuel cut-off valve on top, and a wooden tool for removing the inspection/cleaning cover.

When sailing with the engine off, the throttle/gear should be left in neutral to avoid damage to the transmission and risk of a jammed gear when restarting.

When finished for the day, this is the procedure for turning off the engine:

- Throttle to neutral position
- Press red button to stay in neutral and 'race' the engine…
- Accelerate to about 2,500 revs then back down
- Repeat four more times
- Leave to idle (1000 revs or less) for five minutes
- Press the red STOP button on the engine panel
- Turn key to OFF

This cleans the fuel injector and cylinders, improving engine performance.

MANOEUVRING AND BERTHING

It takes a time and power to get the boat moving, and likewise to stop it. Use substantial bursts of power (say three seconds plus, rather than one or two seconds).

Equally, when turning, especially with the bow thruster, it takes a while to initiate the turn, and the boat will continue rotating once started.

Because of the high sides, the bow is very sensitive to being blown off. At slow speeds, the boat is most stable when reversing into the wind. The helm person should carefully consider the changing affect of the wind on the bow as the boat turns from fairway into access channel and then the finger berth.

The thruster is of limited use directly against a wind above F3.

In confined spaces, be very aware of both bow and stern.

Closing to a berth bow first, a port-side approach is easier, so that reverse-to-stop kicks the stern in.

You cannot see much from the helm; it is essential to have someone calling the distance from bow from about 10m out[*]. At the last metre, make a small turn of the wheel away from the dock and engage reverse.

A speed of 2 knots or less, and an approach angle of no more than 30˚ along with adequate fenders right on the bow will mean little damage can be done to the boat.

If coming bow-on towards a dock or a finger, be aware of how much and how low the anchor protrudes so as to avoid contact with dockside fittings like electricity/water pillars. If mooring bow-to in a finger berth, avoid being so close that the anchor extends above the walk-way.

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[*] Distance does not have to be precise metres, what's important is the rate of change. Call out numbers facing the helm so they can hear. Use your fingers for the last 5 metres. Distance is not from the bow to the contact point on dock, but shortest distance between the dock and the boat. Also warn of pillars or other obstructions, or if the angle is too steep or speed too fast. There is nothing wrong with abandoning an effort and trying again.

Reversing to the berth allows full visibility for the helm, and the reduced prop-walk allows more flexibility in approach.

Of course all this depends on wind strength and direction. Above 12 knots, consider using another berth if necessary.

Minimum mooring lines when stern-in are: two stern lines, one bow line, one line amidships and at least one each of long stern and bow springs. Because it's a heavy boat, all lines should be tight.

BOW THRUSTER

The thruster is controlled by a small instrument to the left of the binnacle panel. Both ON buttons must be pressed at the same time to activate it. It turns off after 5 minutes idle, so make sure it is still on before entering a tight space. The engine must be on.

Look at the controls: the arrows are not intuitive to everyone: the left arrow moves the bow to port.

Remember to watch both ends – the stern goes to starboard when the bow goes to port, and much more so if stopped or moving slowly, when the boat pivots around the keel.

Use the thruster in bursts, typically of three, five or ten seconds, but only if you need it. Total bursts of more than a minute are not recommended – risk of over-heating and motor cut-off.

If the helm person needs assistance to manage the controls, the assistant should push the button only on the orders of the helm person.

WINCHES

The electric-power winch is to be used only by people who have been instructed in its use. For the moment we do not use it.

If you do need to use the electric winch:

1) ensure the clutch is open
2) keep a constant watch on the sail or whatever you are moving
3) you get no physical feedback when things get stuck: if the target is not moving as expected, stop the winch and find out why
4) once going, do not stop-start, keep it going smoothly
5) make sure you stop before you pass the intended end point.

The electric winch also works with standard human power. In all winches, the handle should be fully inserted. No winches should be operated with a back and forward motion – this is the same as crashing the engine from forward to reverse gear without a pause in neutral.

When the main sheet is on the winch, the clutch must be left open.

Winch handles sleep in the cubby beside the nav table.

MAIN SAIL

This furls in and out of the mast, and needs careful management. No electric winching.

To extend, reef or furl away the main, the boat should be **almost** head to wind on a starboard tack, with the boom about 10˚ out to port, so the sail runs smoothly in and out.

The boom must be just above horizontal by about 5cm at the back end; use the topping lift. As usual, ease the mainsheet and vang. Use the boom brake (see below) to control any swinging.

When deploying, ease the furling line and winch in the outhaul. The clew car sometimes jams in the groove. It is helpful to have someone on the coach-roof jiggling it. If that doesn't work, adjust the horizontal angle of the boom.

Note the black tape on the starboard side of the boom: the shackle of the clew car must not go past this, or you risk tearing the sail. It will be forward a couple of centimeters in light airs.

For reefing or furling, winch the furling line and ease the outhaul. Don't put all the sail away: the dark blue triangle remains out of the mast.

GENOA

Furls onto forestay as with Silver Wind. Do it on any point of sail except close hauled. If it's very breezy, bear away and shelter the genoa behind the main sail.

Be aware when tacking that the jammers sometime lock on the working sheet, preventing release of the sail. We may install thinner sheets.

You might want to experiment with the car position, fully back may not be ideal even with genoa fully out.

SAILING

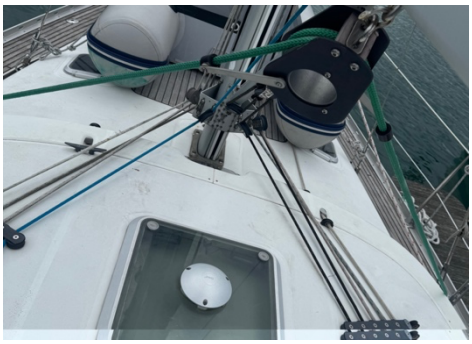
The mainsheet traveller is 'cross-rigged' – pulling the starboard line moves the traveller to port.

Recommended reefing (subject to update as we gain experience): at 15 knots of wind, start with half the main and 2/3 the genoa, then extend if needed.

As mentioned above, when sailing with the engine off, the throttle/gear should be left in neutral to avoid damage to the transmission and risk of a jammed gear when restarting.

BOOM BRAKE

The boom brake is a heavy green line double wrapped round a fixed (non-rotating) drum attached below the boom. Tension is controlled from a jammer on the starboard quarter: more tension, more braking power.



When to use it:

- manage a gybe without the need to haul in the main sheet
- control boom swing when head to wind or hove to
- if using the boom to lift out a POB
- instead of a boom preventer when running before the wind.

ELECTRICS

As well as the usual engine alternator and shore-power connection, we have an inverter, which transforms battery power into mains-type power for use at sea or at anchor.

Control button (beneath the VHF) should be at CHARGE ONLY for normal use, and ON for the inverter. If you turn it OFF, shore-power will not work, so leave the inverter switched to charge unless using it.

The inverter drains the battery quicker than the engine can top it up, so use only for low-power uses, such as: laptops or phone charging; the camping kettle (the small one); the microwave (but only for one or two ready-meals, not three-plus); and the one-plate induction hob kept beneath the aft navigation seat. The plug-in electric heaters should only be used on shore power. (There is a whole-boat diesel heater that we have not tested yet).

After use, turn the inverter back to CHARGE, and run the engine for 15-30 minutes.

With inverter off, check the batteries with the meter on the right, the little button toggles the display between: charge left in engine battery, charge in house battery, amps used, watts used, cumulative use, and % battery left (should always be above 70%; if not, do not use microwave etc). There are the normal battery meters on the navigation panel.

Shore power is in the cockpit, aft port locker, where there is also an adaptor for large shore connections.

BATTERIES

The engine and domestic batteries are stowed each side beneath the aft cabin mattress. The white cords in the cubby holes release the cover panels.

The usual battery switches are in a locker behind the engine accessed from the aft cabin. Beside them are 1) a switch marked Guindeau to reset the anchor windlass cut-off; 2) a reset for the winch cut-off and 3) a turn-switch marked LINK, which gives 30 seconds of power from both batteries if the engine won't start.

There are another two batteries under the forward bunk to power the bow thruster.

NAVIGATION PANEL

To get under way, five switches (from Navigation Lights to Autopilot) must all be ON. Without Autopilot the binnacle log/depth will not work.

The other switches are clearly labelled. Life Tags (personal rescue beacons) are not in use as of May 2025.

PLOTTER

The plotter screen at the navigation table is a repeater, controlled from the binnacle only. There is a remote in the nav table cubby which controls upstairs from downstairs, but it is not working (May 2025) because it was disconnected during a previous repair job.

On the binnacle plotter, a long press on the waypoint button [WPTS/MOB] marks the position a person went overboard.

VHF

The hand-held unit is found below on a clip at the navigation table, and on deck clips to a cradle starboard below the helm. It is not an independent unit, but a Bluetooth-linked slave to the main VHF. It has a DSC - hold for five seconds to send a POB distress signal.

ANCHOR

The anchor is 35kg, and there 60m of chain, so it's very heavy when all out.

The electric windlass is controlled from the binnacle, but there must be someone on the bow to observe that things are as they should be.

The control panel has an indicator to show how much chain is out – currently not working. There are also no metre-marks on the chain yet, so consider flaking out the required amount on deck.

There is a remote controller that plugs in at the anchor locker, currently awaiting installation after repair. It sleeps in the cubby beside the nav desk.

To protect the battery, the engine should be on when using the windlass.

There is an anchor snubber in the anchor locker.

In case of power failure, anti-clockwise turns with a winch handle in the top of the windlass disengage the clutch, allowing the chain to run out; partially re-engage the clutch as a brake; consider running a line from the electric winch to raise the anchor later.

Ensure the chain spreads evenly in the locker when being wound back in (use the boathook handle to guide it), and rinse it with fresh water when next in harbour.

FRESH WATER

There are three fresh water tanks: in the forward cabin, starboard under the table seat, and under the saloon floor near the nav desk. Under the nav desk there are three valves, leaving all open is OK, and will mean you probably have to refill all tanks at one go later.

On the navigation panel above the valves there is a meter [DEBIT EAU] recording litres used. After refilling the tanks check that it has reset to zero, or push the button.

The three inlets on deck are port-side forward (one) and starboard amidships (two).

ON-DECK ROUTINE

At sea, fenders and the boarding ladder should be secured at the stern.

For docking, fenders should be hung from the lower lifeline, as the top wire tension puts too much pressure on the stanchions. If conditions are difficult when getting ready to berth, use the top lifeline and adjust when berthed.

When putting the boat to bed, don't close the sea cocks, don't lock the wheel.

Boathook is in the aft heads. Flares are in the starboard cockpit locker.

The external window shades remain in place whether berthed or at sea. The internal shades should be drawn closed when docked.

OUTBOARD ENGINE

Uses standard petrol, needs oil as well. Dinghy guidelines will be added later.

LIFE RAFT

Stowed in the lazarette - the locker beneath the transom, port side, accessed from the swim platform.

Press the button to release the latch.

GALLEY

Cover the oven to open the microwave.

The fridge has two linked compartments, and three doors, one front opening. To use it, turn on both switches [Cooling Set and Frigoboat] on the navigation panel. The fridge temperature is adjusted with a knob in a locker above the fridge.

The gas control valve is under the oven: the cover panel beside the fire extinguisher pops out and slides up to give easy access.

Storage (what goes where) is due to be reorganised.

MAINTENANCE

The dehumidifier sleeps in an aft cabin starboard locker, standing upright.

Clean wooden decks with Ariel or other biological detergent, liquid or powder, let it sit (dampened) for 1h, then rinse/brush off[†]. Use toothbrush and 10% Milton for hard-to-reach corners. Then use Boracol painted on to keep mould and moss at bay for a season.

[†] Teak should be gently washed using a medium brush across the grain for the first wash. A second wash can be done using a very soft brush with the grain, again gently. Teak is a strange timber. It has hard ridges which are durable but the wood in-between is extremely soft and you can easily raise the grain leaving ridges. A hose with a nozzle is great for washing with another person using the brush. Power wash only on the GRP parts of the hull and deck.

Stern gland needs regreasing once or twice a year a year. Use a feeder gauge blade to lift the black rubber seal, feed in a straw packed with grease and squeeze it.

Twice a year remove some of the engine coolant, and add high quality antifreeze (includes anti-corrosion).

Clean and grease the winches at least every two years.

THE DELICATE MATTER OF THE HEADS

Only because there have many reports of odours from the heads on our lovely new boat, we'll remind everyone of standard procedure.

1) Avoid use in marina, and at anchor if people are swimming.
2) After business, no paper goes down, use a plastic disposal bag.
3) Then:
    a. Turn the pump handle clockwise to unlock
    b. Push the switch to left, marked with a white arrow.
    c. At least 12 pumps
    d. switch to right (black arrow) and 12+ pumps.
    e. (Repeat b-c-d for a no. 2).
4) When finished, leave the switch to right, and turn the handle anti clockwise to lock.
5) When putting the boat to bed, flush out both heads with fresh water, add a cupful of vinegar and pump out x12.

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