



“Zahra” Jeanneau Sun Odyssey 440

Technical Guide

Zahra is an award winning Jeanneau Sun Odyssey 440, with a Yanmar 4JH57CR 57HP driving through a propeller shaft system. She has a standard keel, giving a draft of 2.30m and twin rudders which not only give great sailing performance, but also a shallower draft at the transom making stern to Mediterranean mooring easier on shallow or ballasted quays. She is equipped with a standard furling genoa and an in-mast furling mainsail. The sail setup combined with the full-length keel provide great sailing performance.

Unique walk around decks makes for easy navigation in and around the cockpit. She offers a one of a kind feature; the entire spacious cockpit can be quickly transformed into a huge sun lounger. The entire deck, cockpit and bathing platform are all finished in teak and the platform has an electric lower/raise which can also be operated by remote control, ideal if you wish to raise the platform when you leave the yacht moored stern to on a quay. The spacious cockpit offers all the all the latest navigation equipment, along with music system and shower. Deck and navigation lighting are low power LED, with the choice of ambient, cockpit and table lights, controlled on a centrally mounted panel, along with the transom controls.

Down below Zahra has a large saloon and galley area. The entire yacht features Jeanneau’s ‘Premiere Trim’. The saloon table has ample seating for 6 adults, with the option to extend the table. The galley is equipped with sink and drainer bowls, two burner gimble hob and oven, a large front

opening fridge, with a separate fridge / freezer, allowing for extra worktop space. All saloon and galley lighting are LED, with a choice of ambient lighting at eye and ground level.

2 spacious rear double berth cabins share an aft head with walk in shower. The 'pièce de résistance' being the forward cabin, featuring a queen sized bed, upholstered bulk heads and lamps with another walk in shower/head. It is the largest bed on our fleet!

Adjacent to the companion way steps is a large leather-bound chart table with access to VHF, stereo and touch screen boat management display

Following on you will find some useful technical information on the operation of Zahra.

The Mainsail

Zahra is equipped with the user friendly in-mast furling mainsail system with a high performance Dacron sail with tell-tales, along with a two speed power winch. The Mainsheet operates on either side and is best to use on the windward aft winch when sailing (as the Genoa will be operated with the leeward aft winch). Here is our guidance for operation along with a few setup tips.

To get the Main Sail out

- Ensure the yacht is ready for sailing and everything secure down below
- All deck hatches are closed
- Ensure no one is on deck
- Prepare the OUTHAUL on the starboard coach roof winch
- Prepare the MAIN FURLER on the port side coach roof winch and open the jammer
- Now put the boat 'Head to Wind' if you are not already, and motor gently forward
- Release the MAINSHEET and KICKER (to avoid the sail powering up during unfurling)
- Pull in on the OUTHAUL and feed out the FURLER until the required amount of sail is out
- Tension the OUTHAUL using a winch handle until you have tension on the foot of the sail
- Sheet in the MAINSHEET until boom is centred
- Bear away from the wind until the sail fills
- Put the engine into neutral and ensure you are sailing
- Turn off engine
- Bear away from the wind more to come onto desired course and sheet the sail out accordingly
- Now move on to the Genoa

To Reef the mainsail, you have 3 options;

1- Put the yacht in the 'Heave to' position

2- Furl away the Genoa, put the engine on and go 'Head to Wind'

3- Come onto a 'Close Reach' point of sail (recommended)

If the wind picks up and you feel the yacht is over powered then it is time to reef. Best to try and anticipate this to avoid feeling out control. Knowing when to reef depends on the crew's experience but as the saying goes 'if you are thinking of putting in reef, it is probably too late'!

The 'Hooray Henry' will tell you to get the toe rail in the water, but remember, the yacht will perform best when she is most upright, so often she will sail better when reefed with less 'Leeway' and 'Weatherhelm'

Our recommended way to do this is option 3 from above and should be performed as follows;

- Prepare the OUTHAUL and MAIN FURLER on respective coach roof winches
- Open the MAIN FURLER jammer
- Bring the yacht onto a 'Close Reach' point of sail
- Ease out the MAINSHEET until the sail flaps
- At the same time furl in on the MAIN FURLER and ease out on the OUTHAUL until the required amount of sail is away.
- Close the jammer of the MAIN FURLER
- Winch back on the required tension on the OUTHAUL
- Sheet back in the MAINSHEET until the sail stops flapping

This is our recommended way to reef as it does not require furling away the Genoa or turning on the engine.

To put the sail away and begin motoring again;

- Turn engine on
- Furl away Genoa first (if out)
- Prepare the OUTHAUL and MAIN FURLER on respective coach roof winches
- Motor gently 'Head to Wind'
- Furl away sail using the MAIN FURLER and easing the OUTHAUL

NB. In-Mast Mainsails are excellent and very user friendly but there are certain rules that must be applied in order for it to be operated correctly;

- If you are used to In-mast furling mainsail you will be aware the boom must be level to avoid the sail can creasing at the 'Tack' and getting stuck in the track in the mast. HOWEVER, Zahra's boom is designed to sit slightly up from horizontal and the sail is cut accordingly. The boom level is adjusted using the TOPPING LIFT/MAINSHEET/KICKER
- When furling in and out the OUTHAUL and MAIN FURLER must be controlled and not simply let go. This can also cause creases in the sail as it furls in/out
- Zahra is equipped with a powerful two speed winch on the port side coach roof which can be a real blessing. However, the winch is powerful and care must be taken not to overpower the lines and sails. The winch has more than enough power to rip the 'Clew' off the sail. Communication is King on a yacht so make sure you are all talking and giving each other information as you go through the steps.

The Genoa

Zahra comes equipped with an extra large roller-furling Genoa. Genoa cars run down the length of the deck should you wish to change the angle your sheets lead to the deck.

The furling line runs to a jammer on the port side coach roof so can be furled away using the power winch. Remember the rules as stated above when using the power winch as over tension can break the furling drum and damage the forestay.

The Genoa has 3 blue dots running along the foot which can assist when choosing a reefing point.

The other lines that run back to the cockpit are as follows;

- MAIN HALYARD – Will be coiled up and is not necessary to use on a furling system
- GENOA HALYARD - Will be coiled up and is not necessary to use on a furling system
- SPARE HALYARD
- KICKER/VANG
- TOPPING LIFT

Engine operation

The engine control panel is located on the starboard side of the saloon table making it easy to see your engine's RPM from the helm. The familiar Yanmar panel shows a clear RPM dial and red warning lights should any issues arise.

Simply power on the panel and hold down the START/STOP button. Always check you have water coming out of your exhaust (port side)

If running the engine to charge batteries it is best to run in 'neutral revs' at around 1500RPM (red button pushed in on the throttle). This ensures the batteries are being supplied with charge and the raw water-cooling system is pumping enough water through the system to maintain temperature. This should also be applied when hoisting the anchor.

The throttle/morse control is located to the right of the starboard helm and an RPM of 2400 should not be exceeded when underway. Any more than this and you run the risk of overheating in the warm summer conditions.

Should you have any issues with your engine the start panel will alarm and display the issue in hand.

Anchoring

Zahra is equipped with the latest Rocna Vulcan anchor and 75 metres of chain, so anchoring should always be a simple process. For overnight anchoring, try to get a ratio of 5 times chain length to depth of water, but remember to add 2 meters to your depth shown on the instrumentation as these are set from the bottom of the keel. The chain is clearly marked up to 50 meters, with the marker colours labelled under the bow hatch cover. The anchor windlass is operated via the hand control unit in the bow locker and the engine must be switched on in order for it to operate. There is also a winch handle in the bow locker for those who wish to 'Free Drop' the anchor. A chain hook for securing the anchor chain overnight is located in the bow locker or one of the cockpit lockers. Zahra is also equipped with a chain counter located at the starboard helm that can also operate the windlass, although we always recommend having a crew member operate from the bow to ensure there are no issues and to check chain tension when mooring stern to.

When pulling the anchor up, ensure the engine is switched on and revving at around 1700 rpm in neutral. Use the electric windlass to raise the anchor. If the windlass slows/stalls significantly, stop for 5 seconds, Rocna anchors dig deep and sometimes it takes a few seconds of vertical tension on the chain to “pop” them out of the mud. If the anchor comes up full of mud, leave it just below the water's surface and motor astern for a couple of minutes to clear the mud. Try to avoid motoring forwards to do this as the anchor will then hit the bow of the boat possibly causing gel coat damage. Once clear of mud, slowly raise the final few feet to stow away.

NB. Always ensure the anchor locker door is open and secure to avoid it falling down and causing injury. Children should be supervised if using the windlass and be sure to not let the cable flex get anyway near the working machinery.

Up at the bow you also have a handy bow locker which can be used to store your fenders should you desire. A fixed ladder leads down into the locker.

Bow Thruster

Zahra is equipped with an extremely powerful Quick BTR185 drop down bow thruster that can be an absolute blessing when mooring stern to with a cross wind. The controls are located at the starboard helm. Turn on the thruster by holding down both buttons. You will hear a continuous beep as the thruster drops down, which takes around 20 seconds. When using the thruster push the button (port or starboard) the way which you want the bow to move. It is important to only use small bursts, maximum 3 seconds, then release, then press again. Do not just continually hold the button down as this can burn out the system.

Remember, when mooring stern to you will have attached your dinghy to the bow and it is very easy to ‘prop wrap’ your thruster on the dinghy painter. The same applies when using ‘lazy lines’.

The thruster will turn itself off after a few minutes of non-use, or repeat the turn on steps to put it away. The thruster will continuously beep if it does turn itself off.

Solar Panel

A panel is fitted to Zahra's coach roof deck. This will work automatically and trickle charge the batteries throughout the day meaning you can leave the fridge on all day. Just turn the fridge off when the sun goes down, and back on again at sunrise.

Battery Isolators

These are located in the port aft cabin where you will also find the trip switches for the anchor windlass and the power winch.

Shore Power

Shore power facilities are slowly becoming more common in Greece, although still most harbours do not offer. You will find your power cable in the cockpit lockers and the fitting point is located on the

stern on the port side, just below the pushpit. It is best to not run your engine when plugged into shore power.

Ensure your cable has slack and is wrapped around something on the dock and the yacht, so should it get accidentally snagged it will not damage the connection fitting.

Once plugged in your batteries will now be charging and the plug sockets around the yacht will now work.

Should the power cut out, it will either be a trip switch that has popped on either the shore or the yacht. The trip switches are located in the port aft cabin in the cupboard.

In the Cockpit

Zahra has a beautifully spacious cockpit area where you will find a separate bimini and spray hood with large panoramic windows, perfect to give clients some shade in the hot summer days. A host of cushions including helm seating on either quarter. 3 Choices of lighting make for comfortable evenings aboard with a large teak fold down table for dining.

The electric lifting transom has an integrated fold out swim ladder. The transom is secured by horseshoe bolts on either side, be sure to open these before trying to drop her down and make sure the guard wires are not going to create an obstacle. It is not recommended to moor stern to with the transom down. First moor up and then adjust your lines and anchor to then drop down the transom. Do not leave the boarding plank on the transom when you leave the yacht or at night as it can wiggle its way into causing damage. It is best to raise the transom up when you go to bed.

Your cockpit inventory will consist of the following:

- Spare gas bottle
- Extra mooring warps
- 2 x 40m long floating lines
- Liferaft
- Bucket and sponge
- Motoring cone and anchor ball
- 2 Horseshoe buoys
- Emergency swim ladder
- Spare outboard fuel
- Dinghy pump
- Bolt Cutters
- Emergency Tiller
- Kedge Anchor, Chain and Warp
- 8 Fenders

Zahra also features a unique and simple to use fold out cockpit, transforming the starboard cockpit seat into a large sun bed. Whichever options you choose the aft winches are still accessible so sailing can be achieved whichever position you choose to have them.

Electronic Instruments

Zahra is equipped with the latest in marine electronic navigation, which are as follows;

- 1 x Raymarine i70 Multifunction Speed/Depth/Wind - at the centre consul
- 2 x Raymarine 9" Axiom Pro touch screen chart plotter – Port and Starboard helm
- 1 x Raymarine p70 Autopilot – Centre consul
- 1 x Raymarine Quantum 2 Radar
- Lighting & transom operation terminal – Centre consul
- Quick BTR185 Drop down bow thruster – Starboard Helm
- Quick CHC1203 Chain counter – Starboard helm

With the luxury of two chart plotters on either helm, you may choose to have one setup with speed/depth/wind, or even choose dual screens.

All systems are fully integrated. During your personal yacht briefing a Nisos skipper will walk you through all these instruments so you are fully confident in how to use them.

Dinghy and Outboard

Zahra comes equipped with a dinghy and oars that you will find tied off on the bow. Manoeuvre the dinghy to the stern to tow when underway. Make sure the dinghy is secured to a cleat and the carabiner attached to the guard wires. You will reposition the dinghy back on the bow when mooring stern to, be sure to not drop your anchor in the dinghy or foul your dinghy painter in the bow thruster!

The outboard engine will be on its bracket on the pushpit. The engine must be put back on the bracket whenever the yacht is underway. Make it a two person job to get the outboard on and off.

When using the outboard to go ashore be mindful as you approach and lift the engine and row the remaining distance to avoid clipping your propeller on the rocks. And always wear your 'Kill Cord'.

NB. The dinghy and outboard are the only items not covered in the insurance policy so please take care they are both secure at all times.

Hatches

All deck hatches are lockable from the inside and should be closed when underway. It is very easy to rip the hatches off when sailing as the sheets can get caught underneath.

All hatches and windows have blinds on the inside and deck hatches are all fitted with mosquito nets.

Domestic Water System

Zahra holds 530 litres of fresh water in two tanks. The fillers are situated on the starboard quarter on the deck and on the port side, just forward of mid-ships

When filling, it is recommended that you run the hose until the water runs cool, before putting it into the tank.

The tank switchover valves are situated in the saloon, underneath the cushion next to the forward bulk head.

We recommended that you operate with only one tank switched on at once and change to the other tank when the first is empty. The tanks are number 1&2, 1 being the bow, and 2 the stern tank. If for any reason you run completely out of water, the electric water pump can be switched off at the control panel at the chart table. You will know if a tank is empty as you will hear the water pump in the bilge running continuously.

The boat has a 40 litre calorific water heater which serves hot water to the galley, washbasins and showers including the rear bathing platform shower. This is heated by the engine (or by an internal immersion heater when connected to shore power) which will produce a full hot tank in around 20 mins of running.

Black Water (toilet) Holding Tanks

Zahra forward head and aft head are the familiar manual pump system. Each with its own black water holding tank. It is essential that the seacock drains for these tanks remain closed whilst in use as the tanks rely on high fluid content to work effectively and to avoid the outlets blocking. I am sure it also goes without saying that these tanks must remain closed in ports and harbours and any areas where people may be swimming. When emptying the tanks, a good guide is to be at least 2 miles off shore and in deep water. To ensure the system doesn't block, please use the simple rule "If it hasn't passed through your bodily system, it doesn't pass through the boats toilet system!!"

The sea cocks are located in the white hatches under the wash basins. Both sea cocks are the modern and solid plastic type and very easy to use. The valve is closed when the handle is at 90 degrees to the flow of the outlet pipe.

Showering

Both heads are equipped with walk in showers. The black button by the shower door operates the shower drain pump, which runs for around 15 seconds, so needs to be pressed again to continue to drain the shower tray. Make sure the shower door is secured closed when underway to avoid it banging around.

NB. Hot water on a yacht is HOT! So take care when selecting your temperature as selecting full hot water will be too hot for anyone.

Gas Supply

The domestic gas bottle is situated in the port quarter seat, behind the port helm, where you will also find the spare bottle. To change a gas bottle, unscrew the whole brass fitting off the top of the bottle (best to put a door mat on the cockpit floor, sit the bottle on top and twist the whole bottle off the gas fitting).

The supply of gas to the galley can be isolated using the yellow switch in the cupboard under the cooker. The gas is switched on when the switch is in line with the gas pipe.

At the Chart Table & Invent

Zahra features a spacious and luxurious leather bound chart table area where you will find the following;

- Full set of charts/pilot guide and navigation equipment
- Clock and Barometer
- Raymarine Speed/Depth/Wind
- Raymarine RAY73 VHF radio
- Fusion bluetooth stereo
- Touch screen boat management system
- 12V control panel
- Yacht manuals
- Torches
- EPIRB
- Flares
- Transom remote controls
- 12V inverter
- Calculator
- Notepad
- Spare winch handles

Touch Screen Management system

The very user-friendly system allows you to check water/fuel and battery levels, which will all alarm when low. Simplified icons make it extremely easy to navigate.

12V DC Panel

This panel will operate all electric systems on the yacht, including lighting, pumps and fridges. When the buttons are lit red, they are on, and when white they are off.

VHF and AIS

Zahra comes equipped with an up-to-date Raymarine VHF and AIS.

(All invent and systems will be shown to you during your detailed yacht briefing before leaving base)

Fusion Marine Sound System

Zahra is equipped with a Fusion Marine MS-RA70N sound system, with Bose speakers in the saloon and waterproof Sony speakers in the cockpit. The soundsystem also features a subwoofer. Music can be played via a USB stick/Ipod/MP3 or a Bluetooth connected music player. A basic connection and usage guide follows and a more comprehensive manual is in the black Jeanneau satchel under the chart table seat.

To switch on the unit, switch on the red “power” switch on the Fusion head unit. The stereo offers AM/FM radio, bluetooth connection for devices and as USB plug in option (USB port to the right of the unit).

To connect via Bluetooth, please follow the instructions as follows.

Make sure that your phone or tablet is set to Bluetooth detectable and then press the page icon button on the stereo. Ensure the stereo is set to 'DISCOVERABLE'.

On the device you are connecting, you should now see 'MS-RA70' under available Bluetooth devices. Select to connect and you are there.

By pushing the page button again, you will see all devices that are connected with a tick box highlighting the current device. You may need to turn off a previous devices bluetooth to change to another device.

To connect via the USB port simply plug your device in and press the arrow button and select IPOD/MP3. This process also allows you to select FM/AM radio options, the best local stations being Kiss FM (100.6FM) and Radio DeeJay (93.4FM).

Internal and external speakers can be faded up and down by pressing the main volume button in.

Happy listening and don't forget that music travels a long way over water.

Charging Your Devices

Your electronics devices can be charged via the USB outlets at the chart table. Please note that charging leads are not supplied on board, so please bring your own. There is also a 12v socket located on the cockpit table and you will find a power inverter in the chart table area that can also be used to charge devices. Please be aware this can get very hot.

If you are lucky enough to connect to shore power, Zahra is equipped with numerous 220 volt European style sockets in the cabins and saloon. You will need your European to UK plug converters if you wish to make use of these sockets.

We hope that this manual is of use in preparing for your stay on Zahra and a hard copy is also available on board.

If you have any more technical queries before or during your visit, don't hesitate to ask Rowan Carver in the UK or The Team in Nidri.

If you have any suggestions for further entries in this technical manual, again please don't hesitate to mention them.

Wishing you a great holiday.

The Nisos Team