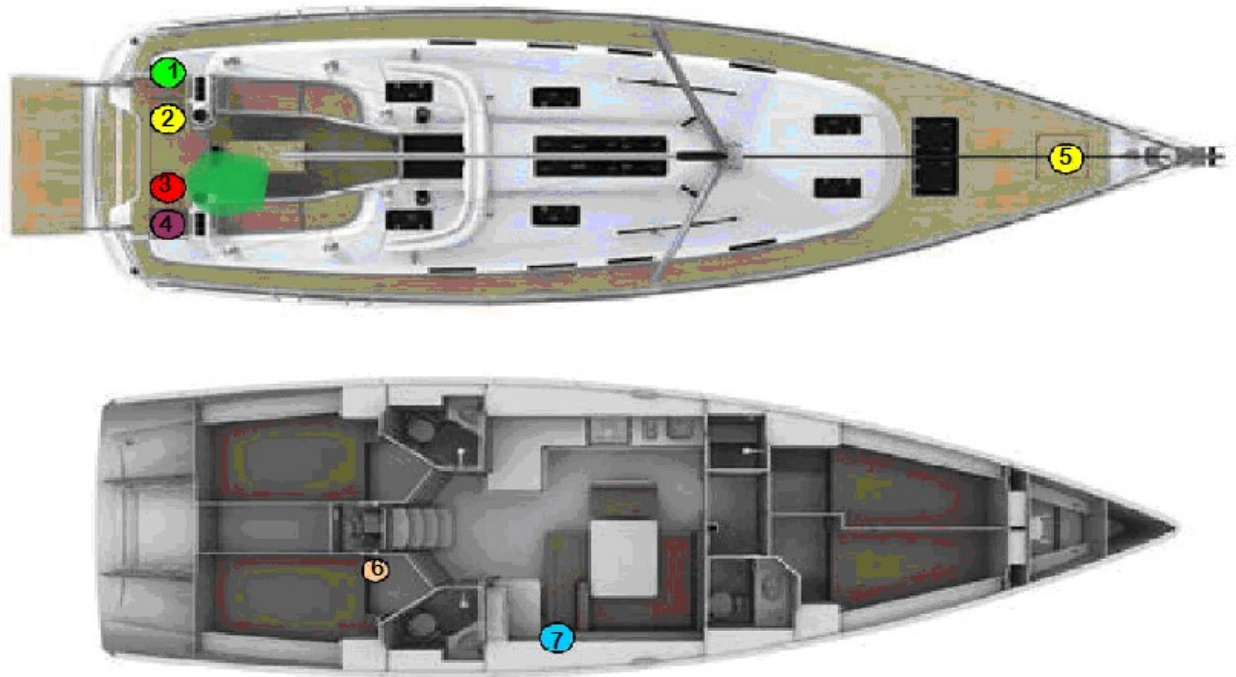


BAVARIA 45 CRUSER 2013 “ORLAN”

1. Yacht specifications
2. 12 volt panel and 220 volt breakers
3. Engine start procedures
4. Daily engine checks
5. Instruments
6. VHF procedure
7. Batteries / Battery Switches
8. Anchoring and using the windlass
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10. Bilge pumps
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14. Refrigeration
15. Stove and propane
16. Fire safety
17. Dinghy and outboard
18. Swim Ladder and bathing platform
19. WIFI internet
20. Risk of damage

1. Yacht Specifications



Location of:

- 1 Propane tank (port aft cockpit locker)connecting for the stove
- 2,5 Fresh water refill (port aft cockpit floor & bow)
- 3 Diesel refill (starboard aft cockpit floor)
- 4 Manual bilge pump (in cockpit)
- 6 Emergency fuel shut-off (Stbd aft cabin under bunk)
- 7 Windlass breaker (wall stbd skipper seating)

2. The 12 volt panel

Use the up and down buttons to toggle through your water tank gauge and your battery voltage. The following functions are available on the 12v panel.

Top row functions from left to right:

- Navigational Instruments
- Auto pilot
- Stereo system
- Anchor windlass
- Bilge pump in saloon

Middle row functions from left to right:

- Fresh water pump
- Shower drain
- Panel light
- Bilge pump in bow locker
- Fridge

Bottom row functions from left to right:

- F1 - Not in use
- F2 - Not in use
- F3 - Not in use
- F4 - Not in use
- F5 - Not in use
-



220v breakers / Battery switches

1. Main breaker, leave on at all times.
2. Water heating
3. Switch of 220 v sockets
4. Switch of 220 v sockets
5. Socket 220v



The 220 volt outlets will operate whilst you are plugged into shore power.

Servise main battery switch

Port aft cabin



Engine battery switch



Shore cable main automatic switch located behind the wall hatch in starboard aft cabin.



3. Engine start procedures.

- Make sure engine is in neutral.
- Press the on/off; wait to hear 2 "beeps" Then press the start button until you hear the engine running.
- When the engine is running check to make sure you have water coming out of the exhaust.
- To stop the engine press the stop button until the engine has stopped.
- An alarm will sound after you stop the engine. Press the on/off once more to turn off the ignition

Should you hear an engine alarm during operation, check the tachometer to identify the reason for the alarm (over heating/oil pressure/battery) immediately shut down the engine-CALL Technical support.

All our yacht engines run with diesel fuel. There is a diesel filler cap under the small cockpit floor panel at the stbd helm which is clearly marked "DIESEL".... DO NOT PUT WATER IN. Fuel level instrument shows the diesel level of the tank with a large deviation and helps you to be informed when tank will be empty, and not to indicate the exact diesel level of full tank. Average fuel consumption 7 liters per hour.

MAXIMUM WORKING SPEED OF ENGINE ARE 2200 RPM



There are additional indicators of water temperature and oil pressure in the engine are installed on the wall in starboard aft cabin.

Check the oil pressure while the engine is running: must not be less 3 bars.

Check the temperature while the engine is running: must not be in red zone.

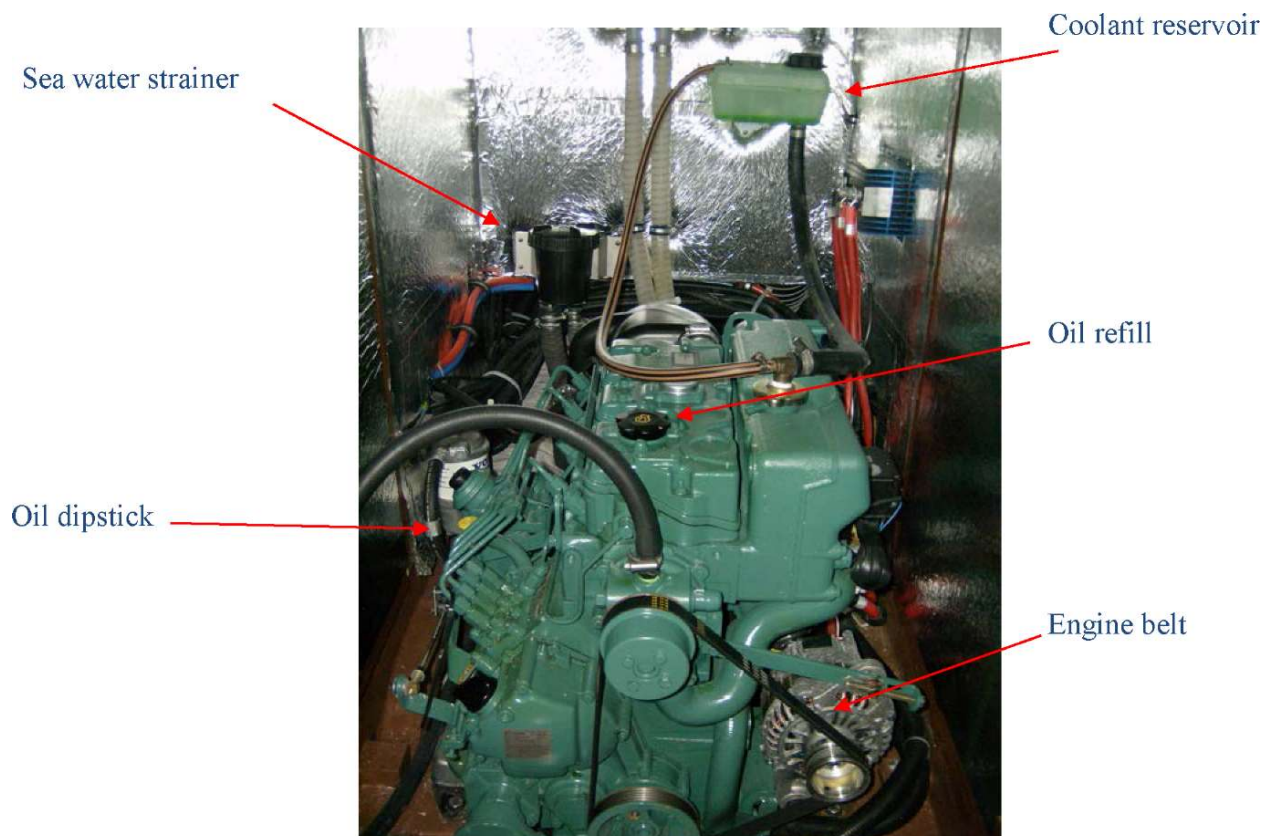


4. Daily Engine Checks

- Check the oil level using the yellow dip stick located to the left rear of the engine. The level should be at least halfway between the empty and full marks. To add oil open the oil filler cap on the top of the engine.
- To the rear left of the engine is the seawater filter. Please do not touch this unless instructed to do so.
- To the rear right of the engine is the engine coolant reservoir. The coolant level should be between the maximum and minimum lines.
- Check for any engine leaks or bilge water below engine.
- Check the belt for any damage and correct tension.

KEEP HANDS CLEAR OF ALL MOVING PARTS.

ANY PROBLEMS CALL Technical support.



5. Instruments

Yacht is equipped with the following instruments on board:
Over the skipper table is a VHF Lowrance LINK-8 , radio with USB and SD input.



Starboard helm : Garmin GMI 10 tridata, Gartmin autopilot control GHC10.
There is also a ship's compass located at the helm and remote control of bowthruster Quick
(maximum time of continuous operation 5 seconds).



Charter plotter Garmin GPSmap 4008 located at the port side helm



IMPORTANT: Please never change the English language, do not reduce the brightness, do not change the settings and alarm.

6. VHF Procedures

The VHF radio is located at the Skipper desk. Using

the VHF radio:

Familiarize yourself with the method for switching channels, and with the squelch and volume controls on your radio. Most radios have a button to instantly select Channel 16 - ensure you understand how this operates or you could end up speaking on Ch. 16 when you think you are on some other channel.

1. Make sure the radio is switched on, volume quite high, power to high unless the station you are calling is very close.
2. Squelch up until loud hissing, and then back a little until the noise *just* stops.
3. Select the channel for calling (Channel 16, unless specified otherwise).
4. Press switch on microphone when speaking. Release immediately.

If no response then wait two minutes and repeat the call. If still no response, wait a further two minutes before trying again. If calling on Channel 16, it is very important to switch to a working channel after the contact is established. Do not use Channel 16 for your conversations - this channel is for hailing and distress only.

Channels to use:

16 Hailing and Distress

17 Marinas and Yacht Clubs - for reservations etc

06 Ship to Ship - along with Channel 68 and 77 can be used for contact between boats

In the event that your vessel is involved in a non-life threatening incident with an object or with another vessel, it is important that you contact the Nova Eurospectra immediately. Please remember to get as much information as possible about your location, the other vessel's description and what damage has been done to your vessel so that we can best assist you.

Failure to report any accidents or incidents in a timely manner may result in nullification of your deposit.

Types of emergency:

In the unlikely event that you are involved in an emergency stay calm and follow these steps. You will also have an Emergency Procedure card next to your VHF.

Distress: "MAYDAY, MAYDAY, MAYDAY." This is an International Distress signal and an imperative call for assistance. It is used only when a life or vessel is considered to be in grave and imminent danger.

Mayday Relay: used to summon help for a vessel which is either too far offshore to contact the coastguard directly, without radio capabilities or whose radio has been damaged or destroyed.

Urgency: "PAN-PAN, PAN-PAN, PAN-PAN" This is the International Urgency Signal and is used when a vessel or person is in some jeopardy but is not considered to be in grave and imminent danger.

Medical emergency: "PAN-PAN MEDICO, PAN-PAN MEDICO, PAN-PAN MEDICO" (Pronounced med-ick-oh). This is an International Urgency Signal that should be used when medical advice is needed.

Safety: "SECURITE, SECURITE, SECURITE" (Pronounced Say-cure-it-tay). This is an International Safety Signal and is a message about some aspect of navigational safety or a weather warning.

How to issue an emergency message

Select Channel 16 and press transmit button on handset

Say slowly and clearly 'MAYDAY, MAYDAY, MAYDAY, CALLING ALL

STATIONS This is.... (vessel name)....' and repeat vessel name 3 times

Give position - vessel's position in degrees of latitude and longitude or nautical miles from, and bearing to, a navigational landmark

Describe emergency - list the problem, the type of assistance needed; number of passengers aboard (boat length, hull colour and type is also useful)

Wait 1 minute for a response, repeat message

7. Batteries / Battery switches

The systems on your yacht are all 12volt. The batteries will need to be recharged as often as you deplete them. Conserving power will result in less time needed for charging, so turn off systems that are not being used.

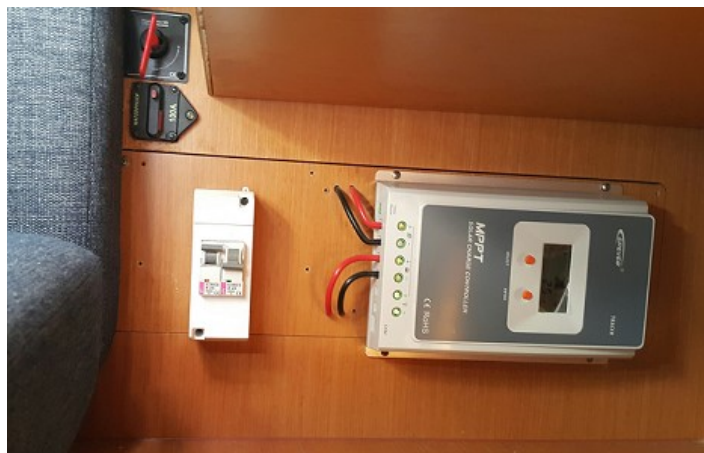
Your batteries will charge when the engine is running at 1400rpms or more, whether sitting at a mooring or motoring to a destination. Check the battery levels and make note of them before charging.

Run the engine at 1400rpms or more for a minimum of 2hrs **twice daily**.

Shut the motor off. Wait 15 minutes before checking the battery levels, (directly after turning off the motor they will remain in an excited state for about 10 minutes).

The service batteries should come to rest at 12.8 v. and then slowly get lower. When the batteries gets to 12.2 you should start to re-charge the batteries soon.

Yacht has service battery systems and starter battery which are isolated from each other. The service batteries have a capacity of 280AHrs. The batteries are located under the Skipper desk seating.



The service batteries main breaker with red key is located under the skipper table over the white automatic switch of solar panels (520 watt). Solar charger 40A located under the skipper table (right picture) .

8. Anchoring & the windlass

Setting your anchor:

Preparation:

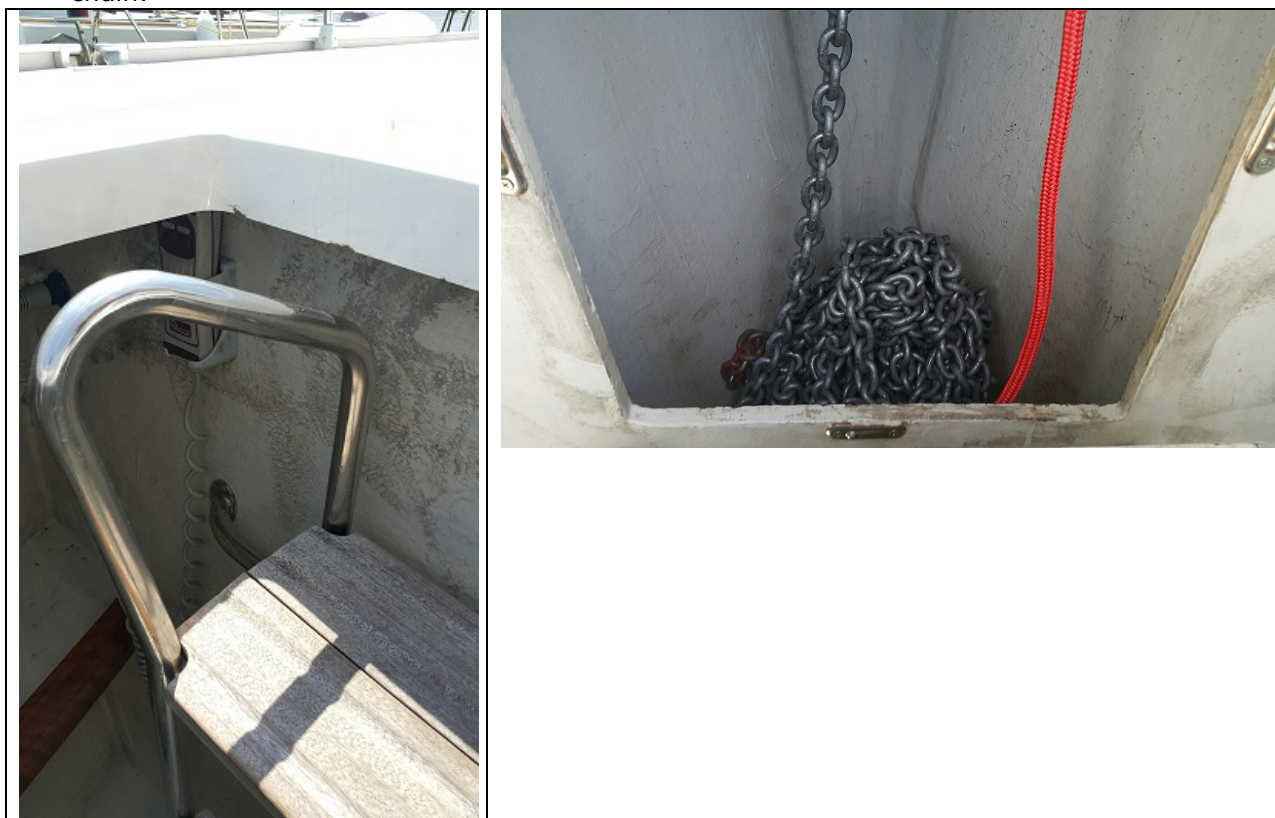
- Establish a non verbal communication system from bow to stern, as with the noise of the engine and wind, verbal communication proves difficult.
- Tie the dinghy painter close to the boat at the bow or amidships to avoid wrapping it around the prop.

Location:

- Choose a clear area to anchor in, with deep in 5 to 10 m. A white collar of bottom under the sea water is sand and perfect for anchoring. A brown or green bottom will be grass, rock or coral. **Only anchor in sand.**
- Make sure that the land relief is protecting you from the wind and that you are not being pushed onto the shore.

Action:

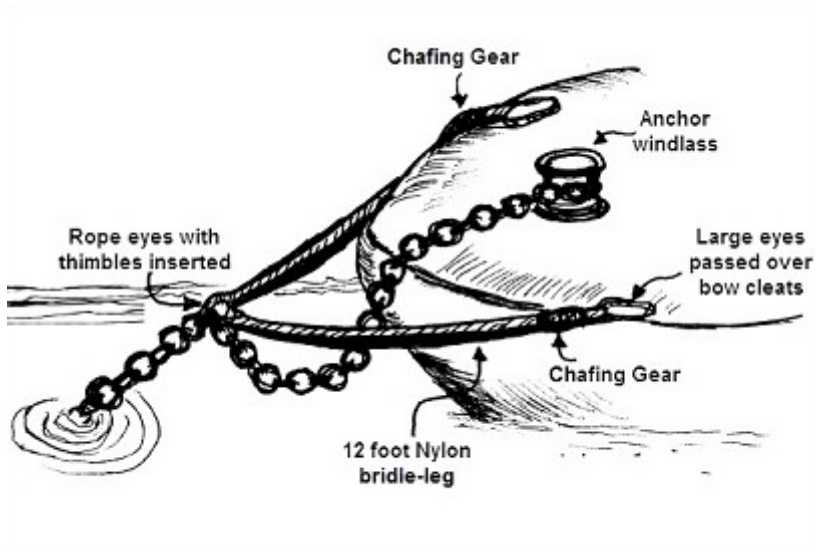
- Carefully lift the anchor over the bow roller and slowly put the chain till the anchor is just above the water surface.
- Use the external forces; approach from down wind or current, whichever prevails.
- Once the yacht is stationary use the electric windlass to drop the anchor. The external forces will push you back and away from the anchor.
- Minimum scope is 4:1. In heavy weather you may want to increase that, always ensuring your rotation area is clear of any obstacles. Chain has red painted indication for each 10 m. You can issue 40m chain max. The chain is connected to the hull by a 10mm rope which serves to drop out the chain in case of danger, and not for the preservation of the chain.



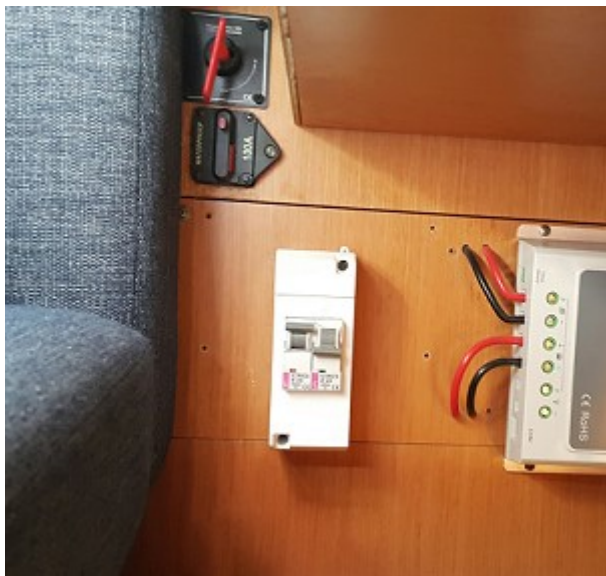
- Engage reverse, slowly up to 1500 rpm to really drive your anchor into the sand.
- Once set, put the engine in neutral and allow the yacht to settle, it is always advisable to snorkel the anchor and rotation area to be ensure it is bedded in correctly and not underwater rock in area.

Attaching the snubbing line:

- Once you are happy that the anchor is set you must attach the snubbing line. The snubbing line protects the windlass and it is important that you attach the snubber every time you set the anchor.
- Attach the hook around the chain link (the hook is too big to go through the link) and cleat off the bitter end of the line to a bow cleat. Pay out enough chain so that the snubbing line becomes taut.



There is a high amperage fuse that will off if the windlass gets overloaded.



The fuse is located on the starboard side under the skipper desk.

The anchor windlass fuse is automatic 100 amps. You can switch-on the fuse to raise the bar. If the windlass is not workable, but the windlass breaker on the 12v panel is switched on, and that the green light is illuminated, this indicates that the yacht service battery power is too low to run the windlass. Please run the engine @1500 rpm for 15 min, and try again. If the windlass still refuses to operate, please call technical support.

Manual operation of the windlass

If you lose power to your windlass, start the engine and give it to 2000rpm in neutral, to make sure you have not just got a low battery voltage. Then make sure the windlass breaker with the anchor icon is in the 'on' position on the 12 volt panel. If there is still no power, check the the windlass fuse in on position. If you still have no power, you can operate the windlass manually.

To drop the anchor, insert the windlass handle into the star fitting on the top of the windlass. Continue to pull back on the windlass handle, so that the brake cap loosens. Your anchor is



now ready to drop.

Remove the safety line and push the anchor over the bow, keeping hands and feet clear. Control the rate the chain pays out by tightening or loosening the brake with the windlass handle.

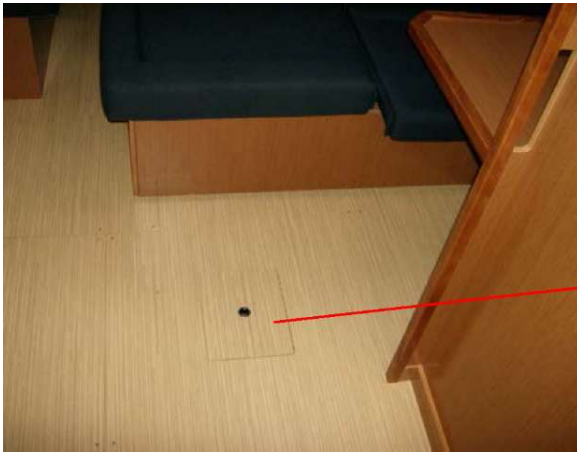
When you have paid out sufficient chain - 3 to 5 times the water depth, push the handle forward to tighten the brake. Increase revs to 1500 rpm, to set the anchor. If you drag, pay out more chain, and re-try 1500 rpm in reverse. When the anchor is set, fit the snubbing line, and cleat it off, then release the chain on the gypsy as above, so that the load is taken up on the snubbing line.

9. Picking up a mooring buoy

- Ensure the dinghy painter is tied off short on the bow or amidships and is clear of the prop.
- Approach the mooring buoy, keeping the bow into the wind or current, whichever prevails.
- Have a crew member on the bow to pick up the mooring pennant with the boat hook.
- The bowman will direct the helmsman to the mooring, using the already established non verbal communication system. Once at the mooring, inspect the buoy and line for any signs of wear and tear; if you are unsure about a mooring buoy's integrity, choose another location to moor up.
- Once set your mooring buoy will be attached either on the port or starboard cleat and the yacht will be head to wind. Remember to centralize the wheel and lock in place to avoid the yacht sailing around the buoy.
- Next attach a second back up line directly to the mooring ball. There will be a metal ring at the top of the ball or a shackle just under the ball. Attach a line from the opposite bow cleat and if possible run the line through the ring or shackle and back to the cleat. It is always easier to do this from the dinghy. Do not try to make the lines of equal length, the first line should be taking all the weight of the boat.
- To depart, release the back up line first. Slowly motor the boat forward to create slack, release the line from the cleat and allow the pennant to slip from the line into the water. Fall back with the wind or current, and be careful not to foul your prop on the pennant.
- Remember to tie your dinghy away from the stern whenever you are maneuvering in close quarters.

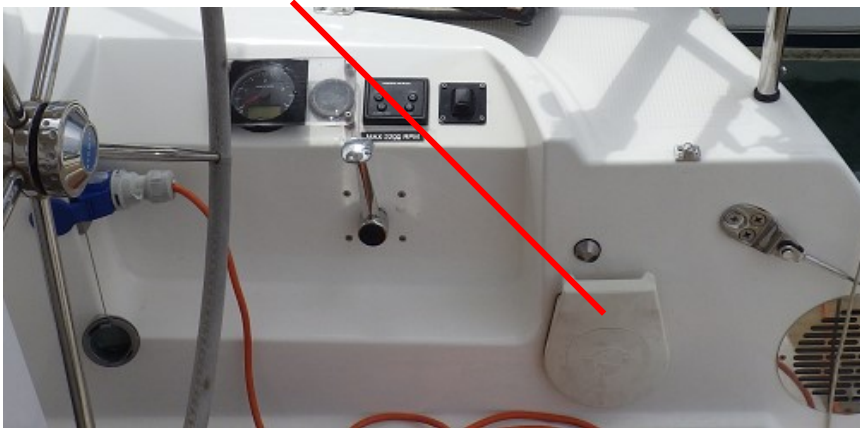
10. Bilge Pumps

Yacht is equipped with one manual and one electric bilge pumps. The electric pump is



operated by a switch on the 12v panel . The manual pump is located in the cockpit.

Manual bilge pump



11. Fresh water system

Yacht has a water capacity of 520 l shared between two tanks. Before filling the tank let the water run from the hose for a while before placing the end into the filler that is located on the transom and the bow. **Please ensure that the correct fillers are used, NOT the holding tanks or the diesel fill.**

To use the fresh water system, turn on the fresh water breaker on the 12v panel and open a faucet. **When a tank runs out of water, the pump will run at high speed and the faucet will start to cough air. As soon as you hear the pump running continuously, check to see if anyone is using water. If not, switch off the pump immediately to prevent the pump from drawing more air into the system or the pump overheating.**

Use the menu key on the 12v panel to confirm if your tank is empty.

Menu Key



Water tank change over valve



To switch tanks:

- Switch off water pump
- Select the next full tank: the valve is located under the sink in the port aft head.
- The valve has two positions (horizontal and vertical) that select one or other tank. After selecting required tank:
- Switch on water pump.
- Open cold water faucet at galley and purge system of air, approx. 45 seconds
- Turn off faucet, pump will continue to run until adequate pressure has built up to operate pressure switch to cut the pump out.
- If pump does not cut out, it may be necessary to repeat the purging process and open other faucets
- If you have any problems, call technical support.

12. Heads

- Nothing is to be put down the head.
- Prior to use, move the lever to wet bowl to add water - 4/6 pumps.
- Pump out waste in the wet bowl position; this must be done when you are more than 300 m off shore.
- After the bowl has been cleared of it's contents, an additional 20 - 25 pulls on 'wet' bowl will flush the bowl and pipes and will keep your heads smelling fresh.
- Move lever back to dry bowl and pump the bowl and pipes dry, the lever must be left in dry bowl as leaving it in wet bowl will ingress water.
- Wherever possible please use the marina's WC as this keeps our waters nice and clean.
- When you stay on anchor or buoy close the WC valve outlet located behind the door under the sink . 50 l waste tank will consume all from wc.
- Blocked heads will be cleared at a cost to you of eur200.00.



13. Showers

Your yacht has a hot & cold, fresh-water shower in each head and on the transom.

If the engine has been running, the hot water can be very hot - be cautious!

In order to use the showers, the fresh-water pump must be activated on the 12V panel. There is also a shower-drain pump switch on the 12v panel. Switch this on also.

To operate the shower-drain pump, there is a black push button on the sink which you will need to hold in to drain the water.

Transom Shower

The valve below the shower head has two functions:

- By pushing the valve up or down you can turn the water on or off.
- By turning the knob clockwise and counter clockwise you can adjust the temperature of the water. Be careful. The water can be very hot. Test before showering.

To use the shower head simply pull it out and press the button on the back. If no water comes out make sure that the 12V water switch is on, that the shower hose is not kinked (access from aft cabin, same side as shower) and that the water pressure valve is in the correct position.



14. Refrigeration

The system on this boat is an upgraded 12v refrigerator. This system is designed to run 4hrs continuous without charging of service batteries then the units off they keep the low temperature some hours more. There is a top loading fridge and a front loading unit with a small freezer compartment. You should not do two things:

- **Firstly, do not keep your refrigerations on if the batteries down less 12v. If the level goes below 12v the refrigerations must be off . Refer to section 7 for charging instructions.**
- **Secondly, do not chip at the ice or use any other sharp items in the fridge. If something is frozen to the fridge do not force it away. Warm water on it if you need to melt it away.**

There is a thermostat in the fridge. It is a white dial with numbers on it going from 1-7. Putting 7 at the apex of the dial is the coldest setting. Keep it on this setting until it is too cold. Then you can turn the system down or off if you wish.

Front loading fridge

Top loading fridge



15. Propane and stove

The propane tank locker is located in the cockpit at the helm seat on the port side.

To use:

- Open the manual shut offs on the propane drum.
- Open the manual shut offs of the pipeline in the galley under the shelf above the stove.
- To light the stove, push the knob in, turn the knob you want 90 degrees counter-clockwise, and light the burner (to light oven put the flame in the tube that is inside/center bottom).
- Hold the knob in for 10-15 seconds, then release. Make sure that the flame goes all the way around. Reduce any wind that may hinder this.

In the event that the propane smell goes off follow these steps:

- **Close the both valve on the propane tank and pipeline.**
- **Switch –off all electricity on board, bilges, water, shower pump.**
- **open up the bilges and hatches. Point the boat downwind and use the manual bilge pump to pump out the bilges.**
- **Call technical support.**

Microwave and propan stove



Pipeline valve



Drum valve



16. Fire Safety

Prevention is the best answer to fire safety.

Always switch off the valves when stove is not in use

Never leave the stove or oven burning unattended.

Never smoke inside the yacht.

Never smoke when changing propane tanks.

Safely store any flammable liquids (for example charcoal lighter fuel).

Keep matches away from children.

Engine compartment fire:

In the event of a fire in the engine compartment use the fire extinguisher positioned under the skipper table and position the mouth of the extinguisher to the fire hole.



Fire hole

Pull the yellow key out. Press down on the red button until all the contents of the extinguisher have been discharged.

Do not open the engine compartment even if you think the fire has been extinguished.

Open fire:

- Pull out the yellow safety tab.
- Point the extinguisher at the base of the fire and press down on the red button to discharge contents.



- Generously cover the base of the fire and surrounding area to ensure the fire is under control and cannot spread. Continue discharging extinguisher until the fire is out.

Galley fire:

-Take the fire blanket out of its container. Read the instructions for use carefully.

-Ensure hands and limbs are protected from the fire by the blanket.

-Carefully lay the blanket over the fire, laying the blanket away from you and keeping yourself protected at all times from the flames.

-Once in place leave the blanket until all heat has gone from the scene of the fire, this way you can be sure that the fire has definitely gone out and

will not re-ignite.

Boiling batteries:

If you recognize the smell of a chemical reaction. Switch-off the main switches of service and starter battery. Opening a hatch to ventilate the inside the yacht and soonest contact with technical support.

17. Dinghy & Outboard

When transporting or storing the outboard motor while removed from a boat, keep the outboard motor in the attitude shown.

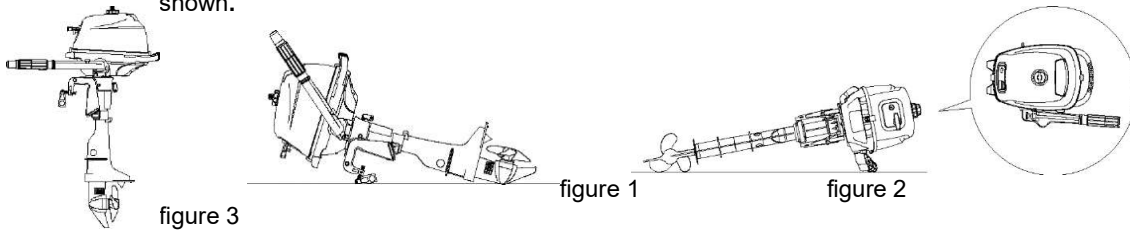


figure 3

figure 1

figure 2

Note:

- Place a towel or something similar under the outboard motor to protect it from damage when as shown in the figure 2 or figure 3 above.
- Please make sure the tiller handle faces down to make the throttle handle point to the direction of propeller

Starting engine:

1. Loosen the air vent screw on the fuel tank cap. One turn for built-in tank.
2. Open the fuel cock.



3. Place the gear shift lever in neutral. The engine must be started in neutral otherwise damage to the starter can occur.
2. Place the throttle grip in the "START" (start) position



3. Pull out the choke knob fully



- It is not necessary to use the choke when starting a warm engine.
- If the choke is left in the "START" (start) position while the engine is running, the engine will run poorly or stall.

4. Pull the manual starter handle slowly until you feel resistance. Then give a strong pull straight to crank and start the engine. Repeat if necessary



5. After the engine starts, slowly return the manual starter handle to its original position before releasing it.
6. Slowly return the throttle grip to the fully closed position.

CAUTION: When the engine is cold, it needs to be warmed up. If the engine does not start on the first try, repeat the procedure. If the engine fails to start after 4 or 5 tries, open the throttle a small amount (between 1/8 and 1/4), and try again.

Warming up engine

1. After starting the engine, return the choke knob to the half Way position. For approximately the first 5 minutes after starting, warm up the engine by operating at one fifth throttle or less. After the engine has warmed up, push the choke knob in fully.
 - **If the choke knob is left pulled out after the engine starts, the engine will stall.**
2. Check for steady flow of water from the cooling water pilot hole.



CAUTION:

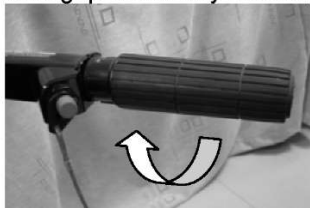
- If water is not flowing out of the hole at all times while the engine is running, stop the engine and check whether the cooling water inlet on the lower case or the cooling water pilot hole is blocked.
- If the problem cannot be located and corrected, contact technical support.

Shifting

To shift from forward to reverse or vice versa, first close the throttle so that the engine idles (or runs at low speed).

Forward

1. Place the throttle grip in the fully closed position.



2. Move the gear shift lever quickly and firmly from neutral to forward

Reverse

WARNING:

When operating in reverse, go slowly. Do not open the throttle more than half. Otherwise the boat could become unstable, which could result in loss of control and an accident.



1. Place the throttle trip in the fully closed position.

2. Turning the outboard motor around 180°.



3. Move the gear shift lever quickly and firmly from neutral to reverse.

Stopping engine

NOTE: Before stopping the engine, first let it cool off for a few minutes at idle or low speed. Stopping the engine immediately after operating at high speed is not recommended.

PROCEDURE:

1. Push and hold the engine stop button until the engine comes to a complete stop.



NOTE:

If the outboard motor is equipped with an engine stop switch lanyard, the engine can also be stopped by pulling the lanyard and removing the lock plate from the engine stop switch.

2. Tighten the air vent screw on the fuel tank cap and set the fuel cock lever or knob to the closed position.



IMPORTANT:

The driver of the dinghy must be over 18. Never operate the dinghy under the influence of alcohol or drugs.

- Always tow your dinghy on a short line while motoring and a long line while sailing, always mount the engine on the push-pit during the sailing.
- If weather conditions are very rough, the outboard needs to be mounted on the push-pit.

Do not allow the boat and outboard propeller to touch with the sea bottom. Only sea urchins are the reason for blowing the dinghy.



18. Swim Ladder and bathing platform

Yacht is equipped retractable transom (bathing platform) that also usage as a transom/helm seat when the transom is closed. There is a removable swim ladder that is stowed in the forward bow locker. While under sail, the transom should remain closed and secure. After you have gotten to your anchorage feel free to deploy the transom for easy access to your dinghy, swimming or snorkeling. There is a lanyard attached to the swim



ladder that enables you to secure the ladder while in use.

Always use the safety lanyard while using the swim ladder to prevent losing the ladder overboard.

Attention:Keep the platform closed while sailing, as well as in the anchor, when a high wave hits the platform. Otherwise, the platform will be demeged.

19.WIFI Internet

Mobile access point must always be included in electricity for tracking and internet access.



Use the net name and passport specified in boat documents.

20. Risk of damage

! Always keep close the hatch windows shown below to avoid damage of windows by rope of Genoa sail and boom traveler.



! In reverse gear when the yacht is going astern, with the propeller "walking" the stern to starboard (right side).

! Due to the overload of coastal sea, please book in advance Marinas, Restaurants and buoys parking places for your restful sleep on the yachts:

- a. <https://my-sea.com/en>
- b. <https://book.aci-club.hr/>

! Check daily forecast on our facebook page : Nova Eurospectra (Nova yachts)

-<http://meteo.hr>

-https://www.windfinder.com/weatherforecast/poljica_trogir

(only 3 days superforecast page)

! Be very carefully with the sheet, mooring line in order to avoid winding on the engine and bowthruster propeller.

Spare engine propeller located under the saloon seat.