

# Operation Manual

Quantum Wave Hanse 508 2021



## Operation Manual

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## INTERIOR

### Control Panel

Yacht control panels are electronic devices for the remote control of one or more pieces of equipment including windlasses, navigation lights, and thrusters.

These devices can control the windlass, thrusters, navigation lights, alarms, video surveillance systems, windshield wipers, engines, fuel, water and oil levels, generators and other equipment.

The control panel is important because:

1. It is responsible for monitoring the health of Yacht
2. Keeping you safe



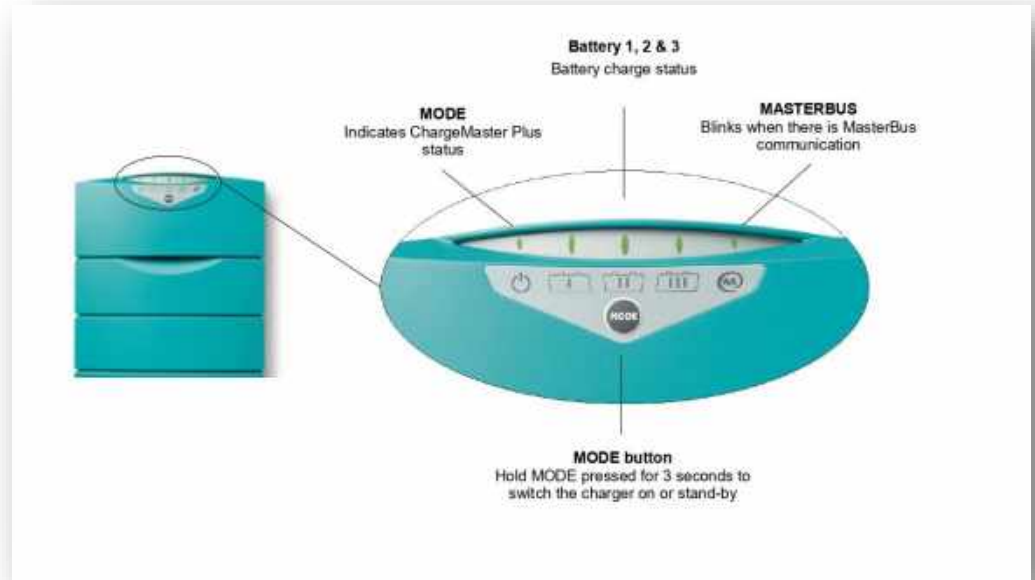
**Its use is described below: The most important and unique to use are in the LEFT SIDE.**

Left Side	Right Side (spare buttons)
Interior Lights	Tricolor Lights
Navigations Lights	Deck wash pump
Anchor Lights	Pump with hose
Steaming Lights	Stern door control
Refrigerator/Freezer	Main furled control
Fresh Water Pump	Dingy winch control
Bilge Pump manual override	-
Navigations Electronics	Holding tank pump
Anchor Winch Control	-
Winches Control	-

### Battery Charger Location

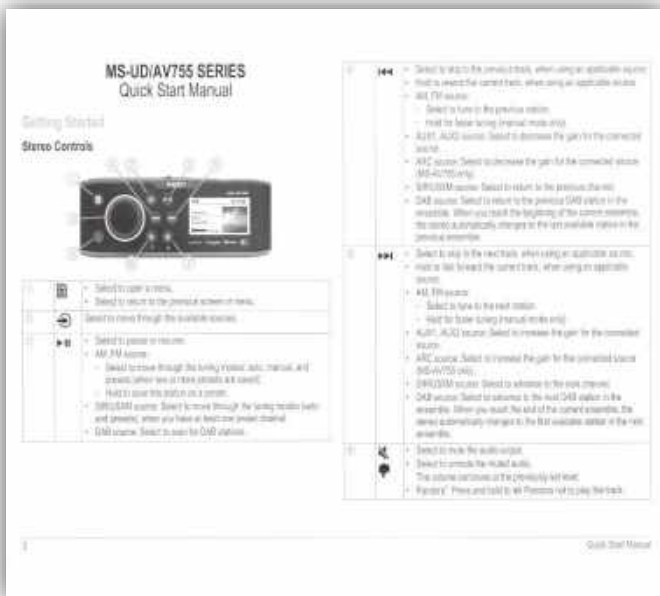
A battery charger or recharger is a device that stores energy in a battery by running an electric current through it. The Master volt Charge Master supplies a maximum capacity wherever you are via auto-ranging. Auto-ranging ensures perfect fully automatic operation anywhere in the world, regardless of the available mains voltage (90-265 V AC, 50 or 60 Hz).

You will find it left of the chart table and behind of the couch.



## Interior / Exterior Radio

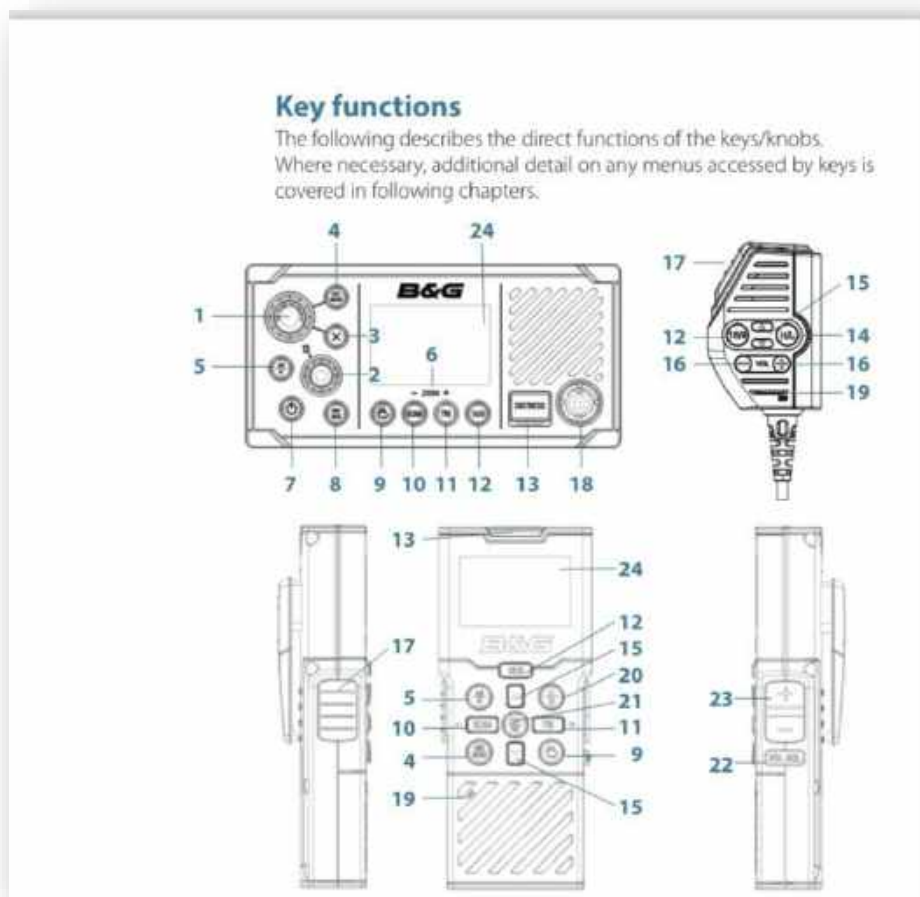
Radio works by transmitting and receiving electromagnetic waves. The radio signal is an electronic current moving back and forth very quickly. A transmitter radiates this field outward via an antenna; a receiver then picks up the field and translates it to the sounds heard through the radio.



		<ul style="list-style-type: none"> <li>Select to adjust the screen and dial brightness.</li> <li>Pandora: Press and hold to tell Pandora you like this track and would like this station to play more tracks similar to it.</li> </ul>
	Dial	<ul style="list-style-type: none"> <li>Turn to adjust the volume.</li> <li>Press to switch between zones when adjusting volume.</li> <li>Press and hold for at least one second to adjust the subwoofer levels.</li> <li>Turn to move through the menus or adjust a setting.</li> <li>Press to select the highlighted option.</li> </ul>
		<ul style="list-style-type: none"> <li>Select to turn on the stereo.</li> <li>Hold to turn off the stereo.</li> </ul>
Not shown		<ul style="list-style-type: none"> <li>Select to eject an inserted CD or DVD (MS-AV755 only).</li> <li>Located on the back side of the stereo face, and accessible only when the door is open (page 5).</li> </ul>

## VHF

A very high frequency (VHF) transceiver is a device that is composed of a transmitter and receiver that operates between 30 megahertz (MHz) to 300 megahertz (MHz). The wavelength of a VHF transceiver varies between 39.37 inches (1 m) to 393.70 inches (10 m), mainly depending on the frequency used.



1. Channel knob / Press to Select Turn knob for channel selection, menu scrolling, alphanumeric entry, and fine adjustment of backlight level (dependent on active menu). Short press to make selections in menus. Long press to open MY CHANNELS.

2. VOL / SQL Volume and Squelch level. Short press knob to select which control to adjust. Which is currently selected is indicated by a small triangular arrow above the level bar for each option. Turning the knob clockwise increases setting, anti-clockwise decreases it. Volume control is common to internal and external speaker. Long press to open SHORTCUTS.

3. X (EXIT) Press X when navigating menus, to clear incorrect entries, to exit from a menu without saving changes, and to back up to the previous screen.

12. 16 (Radio, handset mic and wireless handset) Short press to change to priority channel. Press again to return to original channel. The default Priority Channel is CH16.

13. DISTRESS (Radio and wireless handset) Short press to start a distress call, where the nature of distress can be selected from a list. Long press the distress button to initiate an 'undesigned' distress call. The Distress call is broadcast to all DSC equipped radios, so will create an alarm on every DSC radio within range. If position information is available it will be included in the transmission.

15. Channel change (Handset mic and wireless handset) Short press ( $\rho$ ) goes up one channel, or ( $\sigma$ ) goes down one channel. Holding either key will, after a short delay, step rapidly through the channels.

16. VOL +/- (Volume) (Handset mic only) Change the volume on the handset microphone. Short press (+) increases the volume, or (-) decreases the volume.

17. PTT (Push-to-talk) (Handset mic and wireless handset) Press button to transmit. Only depress for duration of message to be broadcast. Radio can't receive while it is transmitting.

18. Handset microphone (front) connection. Plug in the removable handset microphone. Alternatively, it can be connected to the rear of the radio.

19. MIC (Microphone) (Handset mic and wireless handset) the microphone can be connected to the front MIC connector or rear MIC connector. An optional 5 m or 10 m extension cable is available for mounting the microphone in a different location.

20. POWER / EXIT (Wireless handset) Short press to EXIT when navigating menus, to clear incorrect entries, to exit from a menu without saving changes, and to back up to the previous screen. Long press to turn radio on or off.

22. VOL / SQL (Wireless handset) Short press to select which control (Volume and Squelch) to adjust. Use the + & - buttons to adjust.

23. +/- (Wireless handset) Short press to adjust the selected control (Volume and Squelch).

## GMDSS



The Dual Energy Power Supplies and Battery Chargers are designed and developed for charging and maintenance of voltage on lead-acid batteries and provide consistent and uninterrupted power supply (main or backup). You will find it at the chart table area.

## General Switches

This battery master switch functions as a battery isolator and a theft deterrent device. The battery master switch is commonly used in vehicle applications, such as marine, transportation and automotive. The switch has an impact-resistant housing and has a detachable key for added security.

### Service



You will find the service battery switch in front of the chart table.

### Engine



You will find the main switch that turns off the boat's currents in the stern left cabin, behind of the door.

### Thruster



The switch that turns off the Retractable Thruster battery power will be found at the skipper cabin, when you open the cap.



## Thermal Fuses

Fuses are mechanisms that are inserted into an electrical circuit in order to interrupt the supply of electricity throughout the electrical installation or in individual circuits of the installation, when large current values occur due to short circuit or overload to protect the wiring lines. Are always installed after the circuit breakers and are never installed in ground conductors. The use of these fuses is as follows:

### Anchor fuse



At the image indicates fuse of the Windlass. In case the fuse has fallen, you will see the yellow plastic protruding at the position zero (0), with the use of your hand (fingers) you press the yellow plastic down so that it reaches at the position one (1). Then does an operation test to find out if everything is working properly. You will find it under of the chart table.

## Batteries Location

A battery is a device that stores chemical energy and converts it to electrical energy. The chemical reactions in a battery involve the flow of electrons from one material (electrode) to another, through an external circuit. The flow of electrons provides an electric current that can be used to do work.

### Service



You will find the service batteries on the right side of the chart table and under the living room cushion.

## Engine



You will find the engine battery inside the engine room.

## Thruster



You will find the thruster battery at the skipper cabin under the bed.

## Water System

Freshwater pumps deliver water to fixtures onboard a boat. Pressurized water systems make life aboard more comfortable by providing water "on tap" for dishwashing, showers and other applications.

### Location of fresh water pump



You will find the fresh water pump at the bow cabin, under the bed.

## Location bilge pump



A bilge pump is a water pump used to remove bilge water.

You will find it on the floor in front of the stairs. On this yacht the bilge pump is automatic. So keep the corresponding button always on.


## Operation of toilet pumps

The toilet is one of the most used pieces of equipment on your boat. Correct operation of the toilet is essential for the safety and comfort of your crew and craft.





Open inlet and outlet seacocks (and secondary valves if fitted).

Half fill the bowl with warm fresh water.

Keeping the Flush Control Lever in the Shut (  ) position, pump out the warm water.

### Normal use

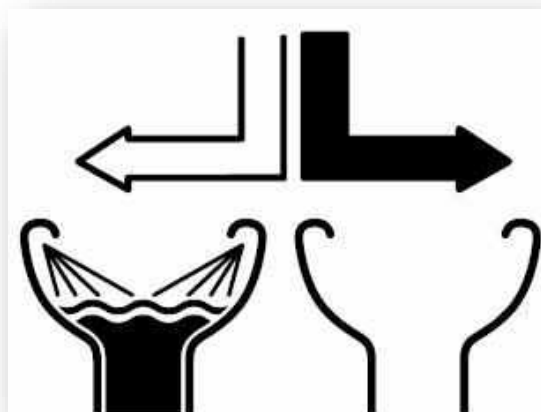
Open inlet and outlet seacocks (and secondary valves if fitted).

Before use, ensure that there is enough water in the bowl to prevent the toilet paper becoming compacted at the bottom of the bowl. If the bowl is empty, move the Flush Control Lever to the Open (  ) position and pump the handle up and down until the flushing pump is primed and water enters the bowl. Then Shut (  ) the Flush Control.

Operate the pump with long, smooth strokes for efficient and easy operation.

During use, pump as necessary to keep the contents of the bowl low enough for comfort.

After use, keep the Flush Control Shut (  ) and pump until the bowl is empty.





When the bowl is empty, Open ( ← ) the Flush Control again, and continue to pump until all waste has either left the boat, or reached the holding tank (allow 7 complete up/down strokes per meter (yard) length of discharge pipework).

NOTE: Do not put in: Sanitary Towels, Wet Strength Tissues, Cotton Wool, Cigarettes, Matches, Chewing Gum, or any solid objects, Petrol, Diesel, Oil, Solvents of any kind or water more than hand hot.

### Operation of shower pumps



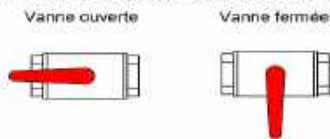
On this boat the shower pumps at the bow are automatics. The shower of stern right toilet is manual, you need to turn on and turn off the black button.

When the pump is fitted with a special negative head kit, the shower is operated by turning on the mixer valve and starting the pump by turn on the switch once. The pump will then run as normal, don't forget to switch off the shower pump after use.

### Operation /Location of Waste tanks/valves

#### Seacocks

Seacocks are of the 1/4-turn type:  
 - OPEN position: handle in the direction of the seacock body,  
 - CLOSED position: handle perpendicular to the seacock body.



open the valve.

As all valves, when it's vertical to the tube connected to it, it is closed and the excrement ends at the waste tanks. When it is parallel to the tube then it is open and the waste tank contents are emptied to the sea. You will find three waste valves, the 1<sup>st</sup> and the 2<sup>nd</sup> are at the bow side at the hall and the 3<sup>rd</sup> is at the stern toilet if you open the cap you will find it.

A stop-and-waste valve is a fitting that attaches to your irrigation sprinkler lines, and it prevents waste from freezing. When closed, they go to waste tank until you



### Oven/Stove



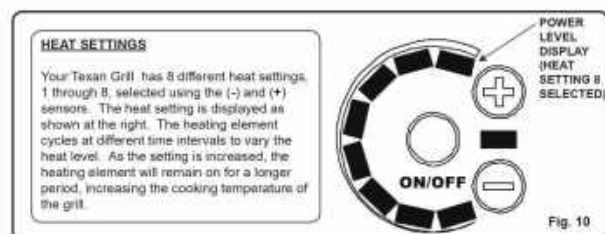
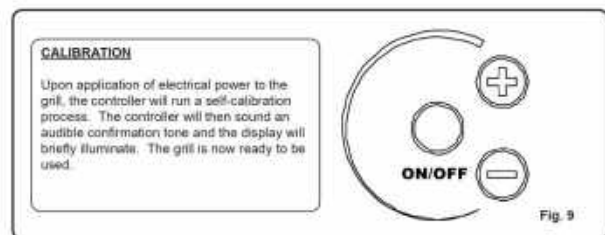
In order to turn on the oven or a hob, press the respective switch inwards and turn clockwise. Without letting go light up the hob with a lighter and hold for 5 seconds, then release. If the flame does not hold try holding in the switch for longer. Also make sure no liquids are spilled on the hobs.

### Location of gas valves inside



In case you need to insulate the gas inlet in the kitchen under the oven, opening the cupboard there is the gas outlet valve in the kitchen. When the valve is parallel to the pipe it is open and when it is perpendicular to the pipe it is closed.

### Operation BBQ



### Location of Gas bottles



For more safety if you want to close all system of gas you need to go outside at the starboard side and to open the locker. There, you will find the bottle gas. If you turn the valve clockwise you open the gas system and when you turn the valve from the other direction you close the gas system.

## Engine

An engine is some machine that **converts energy from a fuel to some mechanical energy**, creating motion in the process.

### Emergency stop



### **IN CASE OF EMERGENCY AND ONLY IN THIS CASE!!!**

If you need to **turn off** the engine, you will be directed to the rear right cabin to have a picture of the engine as in the photo.

If you want to turn it off, you will press the red button down and rotate it to the left.

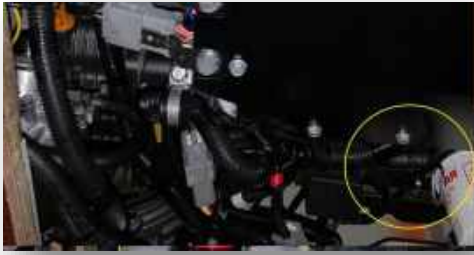
### Diesel Valves



This yacht has two diesel tanks. When you want to change the diesel tank you need to go in front of the stairs and to open the cup. When the valve is on the right you take diesel from the 1<sup>st</sup> diesel tank and when the valve is go at the stern right side on the left you take diesel from the 2<sup>nd</sup> diesel tank.

### Engine oil check





If you want to check your oil, you will be directed to the rear right cabin to have a picture of the engine oil as in the photo.

### Saildrive oil check



If you want to check your saildrive oil, you will be directed to the rear left cabin to have a picture of the saildrive oil as in the photo.

## EXTERIOR

### Thruster Controller

Thrusters are designed with propellers facing in a sideways direction so when they are turned on, **they push the bow or stern of a boat sideways through the water**, in either direction. If only one thruster is used, for example in the bow, then the boat will also turn and change orientation.



- PANEL ON: push both “ON” buttons simultaneously, thruster deploys.
  - PANEL OFF: push “OFF” button, thruster retracts. Operate thruster by pushing red and green arrows. You press left you go left, you press right you go right.
  - STATUS/ALARM LEDS: YELLOW LED solid light means panel is on. GREEN LED flashes during deploy phase, Solid GREEN LED indicates thruster deployed and ready to operate.
  - RED LED flashes during retract phase, all LEDs out when panel/thruster is shut down. If something unexpected happens while deploying/retracting thruster, the LEDs will flash alarm codes according to form on next page.
- The panel will shut off automatically if not operated for approximately 6-9 minutes.
  - **ATTENTION: Do not use it continuously, it is better to use it for 2-3 second, and then you leave it.**



## Autopilot Operation

### Autopilot

If a compatible autopilot computer is connected to the system, autopilot functionality is available in the system. The system does not allow for more than one autopilot computer on the network.

The display unit automatically detects the autopilot computer available on the network and presents settings, configuration and user options for the connected computer.

For details about installing and configuring an autopilot computer, refer to the separate manuals that come with the autopilot computer.

### Safe operation with the autopilot

▲ **Warning:** An autopilot is a useful navigational aid, but DOES NOT replace a human navigator.

▲ **Warning:** Ensure the autopilot has been installed correctly, commissioned and calibrated before use.

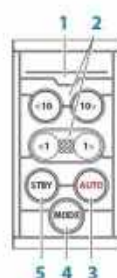
→ **Note:** You can disengage the autopilot at any time by pressing the **STBY** key on the Triton<sup>2</sup> Pilot controller.

Do not use automatic steering when:

- in heavy traffic areas or in narrow waters
- in poor visibility or extreme sea conditions
- When in areas where use of an autopilot is prohibited by law

When using an autopilot:

- Do not leave the helm unattended
- Do not place any magnetic material or equipment near the heading sensor used by the autopilot system
- Verify at regular intervals the course and position of the vessel
- Always switch to Standby mode and reduce speed in due time to avoid hazardous situations



### Autopilot controller

The autopilot is controlled by the Triton<sup>2</sup> Pilot controller.

**1 LED** - Mode and alarm indicator

**2 Port and starboard keys**

In Standby mode: press to activate Non Follow Up mode (NFU).

In AUTO mode:

- Press a key to change set heading 1° or 10° to port or starboard
- For boat type set to SAIL: Press and hold both port keys or both starboard keys to start a tack/gybe

In NoDrift mode:

- Press a key to change set heading 1° or 10° to port or starboard

In Wind mode:

- Press to change set wind angle 1° or 10° to port or starboard
- Press both 1° keys to start a tack/gybe

**3 AUTO key**

Press to activate AUTO mode.

**4 MODE key**

→ **Note:** Only used when the autopilot is in AUTO or NoDrift mode.

Press once to select mode:

- For boat type set to SAIL: activates Wind mode (**A**)
- For other boat type settings: activates NoDrift mode (**B**)

Press and hold to activate NAV mode (**C**)

**5 STBY key**

Press to activate Standby mode.



## Engine Control Panel

An engine control unit (ECU), also commonly called an engine control module (ECM), is a type of electronic control unit that controls a series of actuators on an internal combustion engine to ensure optimal engine performance.



How to turn on your engine?

You press continuously the power, and then you press the start continuously until the engine starts.

How turn off your engine?

You press continuously the stop, and then you press continuously the power.

## Platform Operation



On this boat the platform works with this black button. When you want to open it you press down the button and if you want to close it press up the button.

## Outboard

How to start the outboard:

1. Make sure there is plenty of gasoline/petrol in the outboard fuel tanks.
2. Open the fuel valve.
3. Open the air from the top.
4. Set the outboard to neutral.
5. Place your ignition key.
6. Set the throttle to 2/3 and
7. Pull the rope until the outboard turns.



## Entries Water



This yacht has one water tank.

When you want to refill it you need to go at the bow right side on the deck. There you will find the water cap. It writes up water.

## Entries Diesel



This yacht has two diesel tanks.

When you want to refill it you need to go at the right and left side in the middle on the deck. There you will find the diesel caps. It writes up diesel.

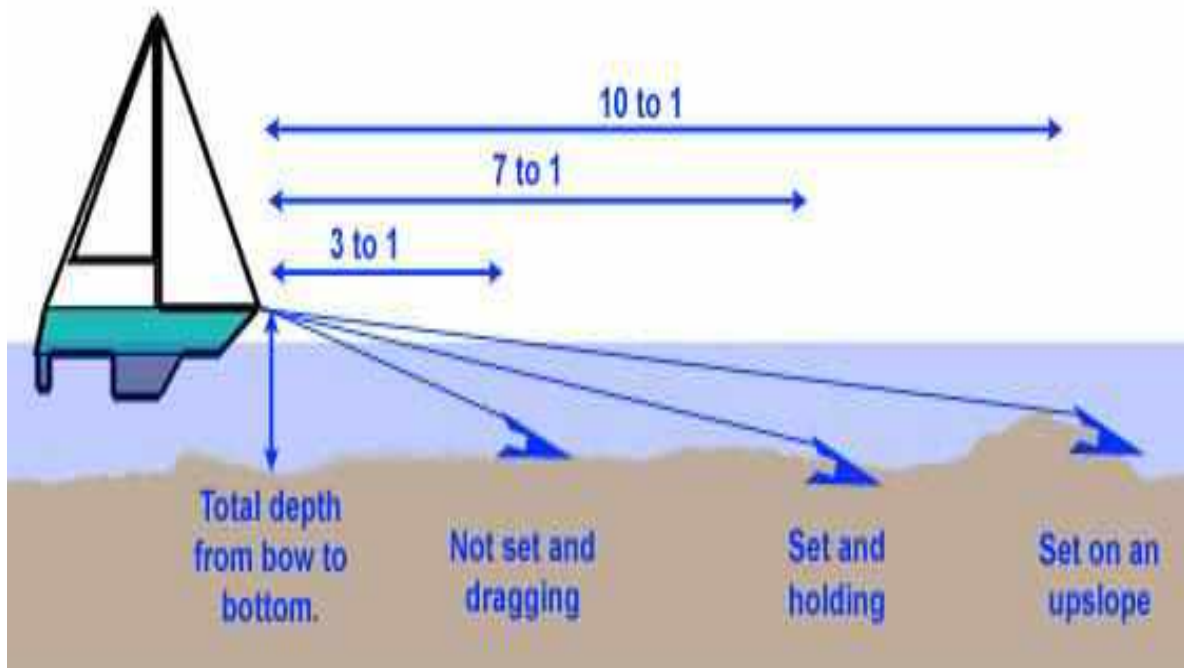
## Chain marking

The boat has approximately 80 meters chain total. Every ten (10m) meters the chain marked with colors as follows:

- 10 meters **White**.
- 20 meters **Blue**.
- 30 meters **Green**.
- 40 meters **Yellow**.
- 50 meters **Red**.
- The last 10 meters are painted with full Red and secured with Rope.

### ATTENTION

1. When you throw the anchor you need to be careful the bow side to do not damage it.
2. When retrieving the anchor and when the blue mark appears, the anchor will be just below 15m under the surface. Proceed slowly at this point to avoid damaging at the bow and at the bowsprit.
3. The engine must be running when you use the windlass motor.



## Sails

### Main Sail



On this yacht you have furling main sail and manual switching (in – out), which means when you want to open the main sail you must go to put the spigot to out. Then as you release the furling ropes you will take out the outhaul. This procedure must be simultaneously. If you want to close the main sail you must go to put the spigot to in. Then as you release the outhaul you will take the furling ropes. This procedure must be simultaneously.

## Genoa



On this yacht you have self tacking genoa, which means when you want to open the genoa you must release the genoa sheet and to take out the genoa furling. This procedure must be simultaneously. If you want to close the genoa sail you must release the furling rope and to pull the genoa sheet. This procedure must be simultaneously.

