

OCEANIS 58

Owner's Manual



BENETEAU



Code: 119968
Index F

Welcome aboard

Madam, Sir,

You have just taken delivery of your new BENETEAU boat and we thank you for the confidence you have shown us in ordering a vessel of our brand. The whole BENETEAU team welcomes you aboard.

A BENETEAU is made to last, in order to bring you all the pleasure you expect from a vessel over a period of many years. Each boat is subject to the utmost attention to detail from the design stage right through to launching.

This manual is meant to help you to enjoy your boat comfortably and safely. It includes the boat specifications, the equipment provided or installed, the systems and tips on her operation and maintenance. Some of the equipment described in this manual may be optional.

Your BENETEAU dealer will be able to help and advise you in the use and maintenance of your boat.

**Read this user's guide/owner's manual carefully and get to know your boat before using it.
The better you know your vessel the more pleasure you will get from being at the helm.**

The sea is a source for learning. Caution based on a knowledge of one's own limits and those of the boat is the pre-requisite for an accomplished sailor.

Even when your boat has been adapted for them, the sea and wind conditions corresponding to the design categories A, B, C and D may vary, ranging from severe conditions to strong storms subject to the risks of exceptional waves and gusts of wind, this meaning they are dangerous conditions in which only an experienced, fit and well trained crew manoeuvring a well maintained boat can sail in a satisfactory manner.

This user's guide/owner's manual is not a course in safety at sea or about sailing sense. If this is your first boat or if you change to a new type of boat which you are not used to, get some training in boat control and sailing to ensure your safety and comfort. Your dealer, your international sailing association or your yacht club will be very happy to recommend local sailing schools or professional instructors.

Make sure the sea and wind conditions will correspond to the category of your boat and you and your crew are able to handle the boat in these conditions.

Always listen to the weather forecast before you put out to sea.

Keep this user's guide/owner's manual in a safe place and hand it over to the new owner if you sell your boat.
You are advised to keep all the instructions and manuals provided by the boat equipment manufacturers (accessories...) in the same place as this manual



Introduction

The users of the boat are informed of the following:

■ This user guide/owner's manual is not a maintenance or repair guide. In case of difficulty do not hesitate to call on the services of your concessionaire BENETEAU.

■ Any alterations which may affect the safety specifications of the boat must be assessed, carried out and recorded by persons qualified to do so. Any change in the distribution of the vessel's mass (adding a radar, altering the mast, changing an engine, etc) may affect the stability, trim and performance of your boat.

The BENETEAU shipyards may not be held responsible for any alterations which they have not approved.

■ The complete crew must be equipped appropriately.

■ In numerous countries, a licence, an authorization or a training course is requested. Make sure you have this legal authorization before you use your boat.

■ Adapt the use of your boat to her condition that wears out with time and use.

■ Any boat, however solid she may be, may be severely damaged if badly used. This is not compatible with safe navigation. Always adapt the speed and direction of your boat to the conditions of the sea.

■ The boat shall not be loaded more with than the maximum load recommended by the builder, in particular the total weight of the food supplies, of the different equipment that are not supplied by the builder and of the persons on board.

■ The weight of the boat shall be properly distributed.

■ The stability is reduced when you add weight in the upper parts.

■ In case of heavy weather, the hatches, lockers and doors shall be closed in order to minimize the risk of water coming in.

■ Breaking waves are a serious threat to stability.

■ The water in the bilge shall be kept at its minimum.

■ The stability may be reduced when you tow a boat or when you lift heavy weights with the davits or the boom.

■ If your boat is equipped with a liferaft, carefully read the instructions. The boat must have on board all the proper safety equipment (lifejackets, buoys, harness, flares, liferafts, etc.) depending on the type of vessel, its certification, the country, the weather conditions encountered, etc.

■ The crew must be familiar with the use of all the safety equipment and the emergency safety procedures (MOB, towing etc.). Sailing schools organise regular training sessions.

■ Anyone on the deck shall wear a life jacket or a buoyancy aid.

The safety regulations as defined by the sailing code and enforced by the "COLREG" should be observed.

Introduction

Name plate:

Some of the data is shown on the manufacturer's plate fixed to the boat. The explanation of the data is given in the appropriate chapters of this manual.

Identification of vessel:

The vessel's identification is found on the builder's certificate delivered with the boat and is engraved on the starboard aft side.

So as to be able to continuously improve their product the BENETEAU shipyards reserve the right to make any alterations in design, layout or equipment which they judge necessary.

That is the reason why the specifications and information given are not contractual, they may be modified without prior notice or up dates.

This owner's manual is designed in accordance with the ISO 10240 standard requirements, it has a general purpose and it may sometimes list some equipment or accessories or deal with some points or questions that are not relevant to your own boat.

The different warnings used throughout this guide are broken down as follows.



DANGER

Indicates the existence of a serious inherent danger with a high risk of death or serious injury if the appropriate precautions are not taken



WARNING

Indicates the existence of a danger which could lead to injury or death if the appropriate precautions are not taken



PRECAUTION

Indicates a reminder of safety practice or draws attention to dangerous practices which could cause injury to persons or damage to the vessel or to its components



ADVICE - RECOMMENDATION

Indicates a recommendation or advice for carrying out manoeuvres appropriate for the planned manoeuvres

Introduction

HISTORY OF UPDATES

•Index A.....	12/2009
•Index B.....	09/2010
•Index C	03/2011
•Index D	08/2012
•Index E.....	01/2014
•Index F.....	06/2014

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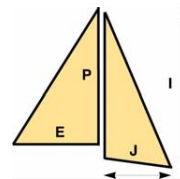
General specifications

- Technical specifications
- Certification
- Design category
- Your boat

L.O.A (with Davits)	18,24 m
Hull length	17,75 m
L.W.L.	16,43 m
Overall width	4,99 m
Beam	4,99 m
Waterline beam	4,27 m
Air draught - Empty vessel	27,50 m
Draught Max - Deep draught keel	2,70 m
Ballast weight Deep draught keel.....	6 435 kg
Draught Max - Shallow draught keel	2,20 m
Ballast weight shallow draught.....	7 150 kg
Light displacement	22 051 kg
Recommended maximum power.....	110 kW
Total mass of liquids (all tanks full)	2 184 kg
Freshwater capacity	2 x 324 l
Freshwater capacity additional.....	330 l
Sewage water capacity (in each bathroom)	73 l
Sewage water capacity (Skipper's cabin).....	50 l
Fuel oil tank capacity.....	2 x 240 l
Fuel oil tank capacity additional	2 x 300 l
Refrigeration unit capacity.....	130 l + 100 l
Battery capacity - Service 24V	4 x 140 A (24V system)
Battery capacity additional	4 x 140 A (24V system)
Battery capacity - Service	110 A (12V system)
Battery capacity - Engine	110 A (12V system)
Battery capacity - Bow thruster	4 x 50 Ah (24V system)
Battery capacity - Generator	110 A (12V system)
Cabins	3/4 - 1 Skipper's cabin

SAIL S - SAIL S SURFACE

Classical mainsail	87,00 m ²
Furling mainsail	73,00 m ²
Genoa.....	90,00 m ²
Asymmetric spinnaker.....	248,00 m ²
Code 0.....	120,00 m ²
Staysail.....	48,00 m ²
I	23,65 m
J.....	6,88 m
P	22,90 m
E	6,90 m



Note: The capacities indicated are maximum (including options).



General specifications 1

CERTIFICATION

CE Category	Persons Maximum	Maximum load (kg)	Displacement with maximum load (kg)
A	12 persons	5445	27 496
B	13 persons	5480	27 531
C	16 persons	5600	27 651
D	16 persons	5600	27 651

Including the mass of the persons who are authorized on board (75 kg/165 lbs per adult), the supplies, the liquids that can be used (fresh water and fuel) in fixed completely full tanks, the additional loads, the optional equipments, the liferaft and the scope for load.

DEFINITION OF DESIGN CATEGORIES

Design category	Wind force (Beaufort scale)	Significant height of waves to be considered (in metres H 1/3)
Vessel designed for navigation: A - "At high sea" B - "In open sea"	Over 8 Up to and including 8	Over 4 Up to and including 4
C - "Near to the coast" D - "In sheltered waters"	Up to and including 6 Up to and including 4	Up to and including 2 Up to and including 0,3

The OCEANIS 58 model conforms to the directive 2003/44/CE

Category A: At high sea

This craft is designed to operate in winds that may exceed wind force 8 (Beaufort scale) and in significant wave heights of 4 m and above.

This craft is largely self-sufficient. Abnormal conditions such as hurricanes are excluded.

Such conditions may be encountered on extended voyages, for example across oceans, or inshore when unsheltered from the wind and waves for several hundred nautical miles.

Category B: In open sea

This craft is designed to operate in winds up to Beaufort force 8 and the associated wave heights (significant wave height up to 4 m, see Note 1 below).

Such conditions may be encountered on offshore voyages of sufficient length, or on coastal waters when unsheltered from the wind and waves for several dozens of nautical miles.

These conditions may also be experienced on inland seas of sufficient size for the wave height to be generated.

Category C: Near to the coast

This craft is designed to operate in winds up to Beaufort force 6 and the associated wave heights (significant wave height up to 2 m, see Note 1 below). You may meet with such conditions in exposed inland waters, in estuaries and in coastal waters with moderate weather conditions.

Category D: In sheltered waters

This craft is designed to operate in winds up to Beaufort force 4 and the associated wave heights (occasional maximum waves of 0,5 m height). Such conditions may be encountered in sheltered inland waters, and in coastal waters in fine weather.

NOTE:

- The significant wave height is the mean height of the highest one-third of the waves, which approximately corresponds to the wave height estimated by an experienced observer. Some waves will be double this height.

- The creation of different design categories results from the need to distinguish between different levels of risk according to the construction of the boats.

The parameters for the characteristics are established to define the conditions of navigation which each category may encounter; they serve purely to evaluate the boat designs and are not to be used to limit the geographical areas in which these boats may operate.

- One boat may be classed in several design categories at the same time, each with their different maximum capabilities.

Your boat

Name of the owner:

Name of the boat:

Address:

Delivery date:

.....

Registration number:.....

Telephone:.....

Serial number (C.I.N):

email:

Entrance door key n°:

Telephone N° / Address to be contacted in case of emergency

Engine type		
Serial number		
Engine key number		



BENETEAU (Establishment of the company SPBI)
Z.I. des Mares - BP 66 - 85270 St - Hilaire - de - Riez - FRANCE - Tél. + 33 (0)2 51 60 50 10 - <http://www.beneteau.com>

Safety

- Safety Equipment
- General information
- Gas system
- Recommendations for gas
- Fight against fire
- Bilge pump system
- Emergency tiller

SAFETY EQUIPMENT



REF	Designation
1	Position of swimming ladder (means of coming back onboard)
2	Location of liferaft locker



Swimming ladder (means of coming back onboard)
(Reference 1)

Open position



Closed position



Storage locker for liferaft (not supplied)
(Reference 2)

Locker open



Locker closed

Safety 2

■ GENERAL INFORMATION

DANGERS

The major hazards concern:

- The gas system.
- The electrical system.
- Manoeuvring the vessel and the sails.
- The motorisation.

Please refer to the relevant paragraphs.



DANGER

- Fuel leaks or vapour represent a danger of fire and explosion.
- Leave the engine compartment ventilated for a long time before starting the engine.
- There may be danger of fire or explosion if direct current systems are incorrectly used.
- Some boats are equipped with a retractable ladder or removable. Make sure the ladder is in place and deployed as soon as you are on board.
- Reduce speed in waves.



WARNING

- Before you sail, list the compulsory safety equipment.
- Don't exceed the number of persons indicated in the chapter 'Specifications'.
- The total weight of the persons and equipment must never exceed the maximum load recommended by the manufacturer.
- Use the seats provided.

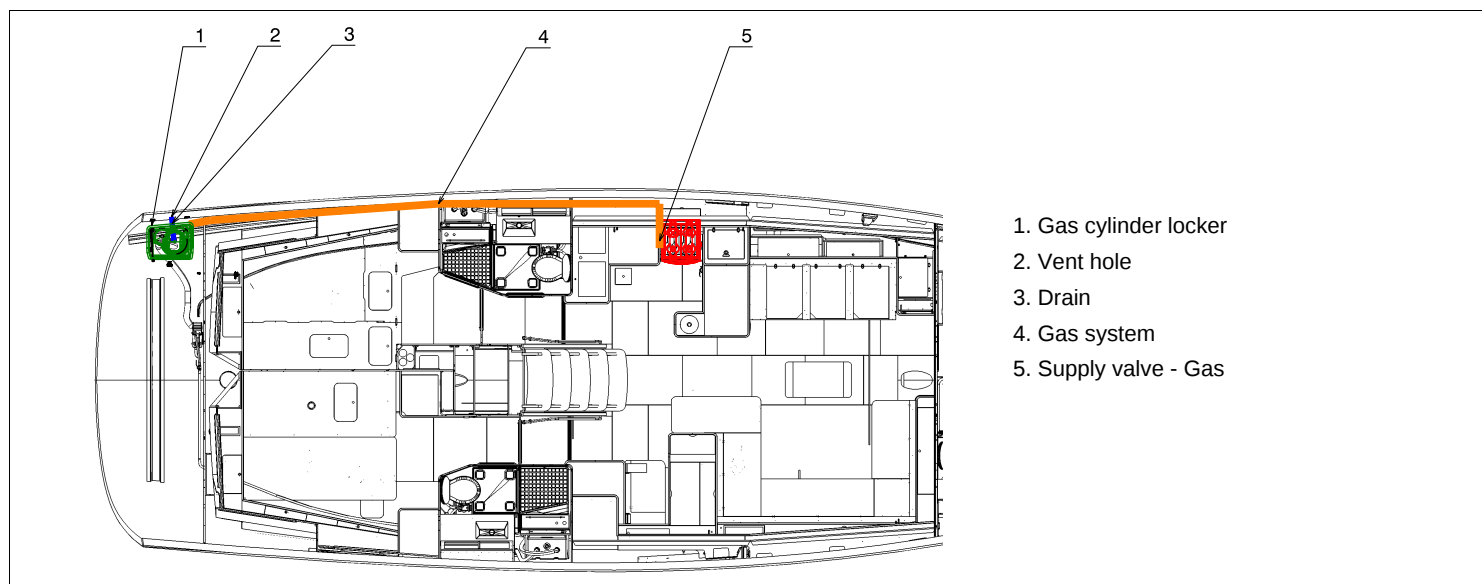


ADVICE - RECOMMENDATION

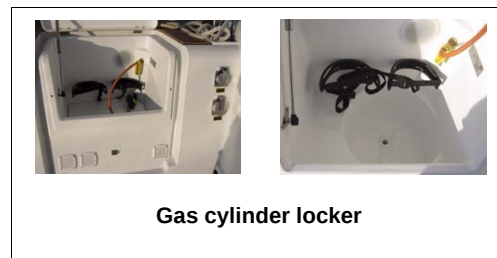
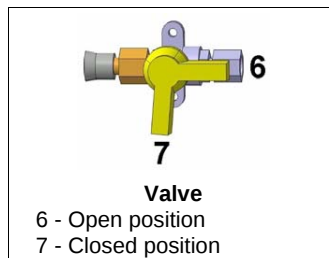
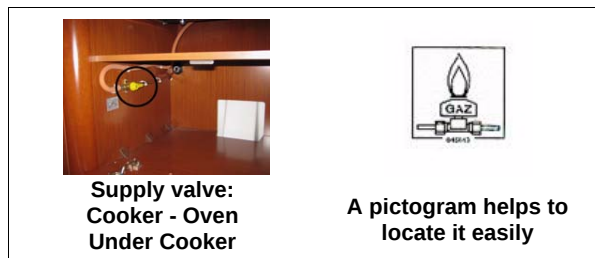
- When sailing, never padlock or lock the liferaft locker.
- Before putting to sea, carefully read the launching instructions shown on the liferaft.
- Close the deck hatches and portholes before each trip (including the companionway hatch in heavy weather).
- Don't store anything below the floorboards.
- Ensure that movable items are firmly secured when the boat is under way.

GAS SYSTEM

LOCATION



Note: Same position for the other layouts.



Safety 2

RECOMMENDATIONS FOR GAS

Type of cylinder: butane, service pressure 10 kg/cm² or according to current standards of your country).

Close the valves on the system and on the cylinder when the appliances are not used. Close the valves before you change cylinders and immediately in case of emergency.

Never leave unattended an appliance that is working. Don't install or store flammable materials above or over the stove (curtains, papers, napkins etc.).

Make sure that the valves of the appliances are closed before you open the cylinder or hose valve.

In case you smell gas or find that the burners have gone out (although appliance models cut off automatically if the flames go out), turn off the valves of the appliances. Do ventilate the boat in order to get rid of any residual gas. Find the cause of the problem.

Regularly test the gas system in order to detect any gas leak.

Check all the connections using water and soap or detergent, closing the valves of the appliances and opening the valve on the cylinder.

If you detect a leak, close the valve of the cylinder and repair before you use it again.

The appliances use the oxygen of the cabin and release combustible gases. Ventilate your boat when using appliances.

Don't obstruct the air vents and at least leave the door open. Don't use the oven or stove as back up heaters.

Lock the stove oven when being not used in order to avoid damaging the tubes when sailing.

Never obstruct the fast access to the components of the gas system. Keep the taps of the empty cylinders turned off and the cylinders disconnected.

Keep the protection, lids, covers and taps in their places.

Don't use the gas cylinder storage place to store other equipment. Only use the proper locker to store the gas cylinders.

Regularly check and replace the rubber tubings that link the cylinder to one end of the circuit and the stove to the other one, depending on the norms and regulations in force in your country.



WARNING

- Don't use a solution containing ammonia.
- Don't use a flame to detect leaks.
- Don't smoke, don't use a naked flame when you change the gas cylinder.



WARNING

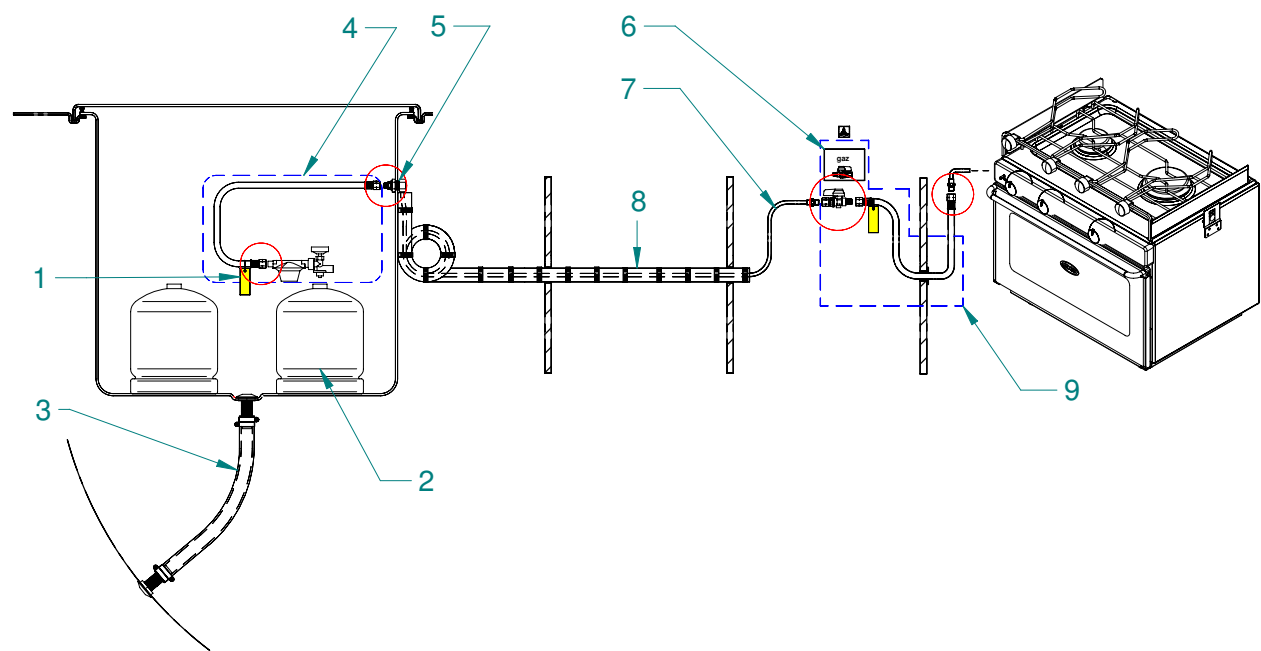
- Do not use a solution containing ammonia to detect leaks.
- Don't use a flame to detect leaks.
- Don't smoke, don't use a naked flame when you change the gas cylinder.



ADVICE - RECOMMENDATION

- Shut off the gas supply at the bottle as well as the cooker tap.
- When changing the cylinder, refit the cap in place on the regulator threaded section (to avoid corrosion).
- For winter storage instructions and precautions, refer to Chapter 12.

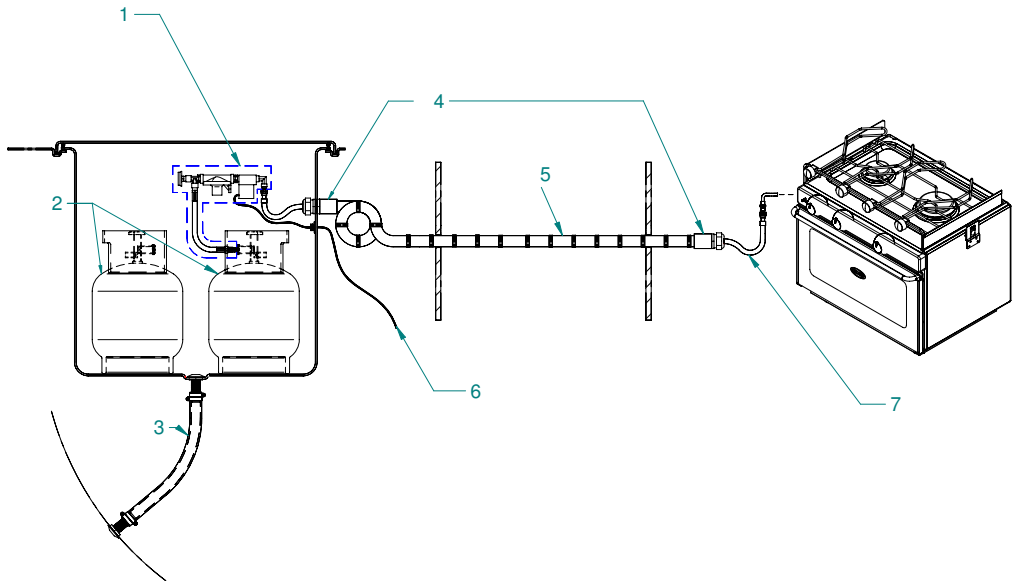
SCHEMA GAS - VERSION EUROPE



REF	Designation
1	Regulator valve
2	Gas cylinder
3	Drain
4	Connection kit gas bottle
5	Rubber washers
6	Pictogram
7	Connection kit gas copper
8	PVC girdled sleeve
9	Gas appliance connection kit

Safety 2

SCHEMA GAS - VERSION US



REF	Designation
1	Regulator valve 12V
2	Gas cylinder
3	Drain
4	Stuffing box
5	PVC girdled sleeve
6	Electromagnetic valve for gas 12V
7	Pipe Propane Plastic

Safety 2

Regularly check and replace the rubber tubings that link the cylinder to one end of the circuit and the stove to the other one, depending on the norms and regulations in force in your country.

Pay particular attention to keep in good condition the screw thread of the cylinder on which the regulator is. Check the condition of the regulator every year and change it if necessary. Use regulators identical to the ones that are fitted.

Have the repairs carried out by someone skilled.

POSITION OF GAS BOTTLE

The locker for storing gas bottles can be reached through the cockpit. The locker can accommodate 2 gas bottles. The locker is equipped with bottle fastening straps.

FIGHT AGAINST FIRE.

It is the owner's or the skipper's responsibility:

- To have the extinguishers checked in pursuance of the instructions given.
- Use extinguisher replacements with equivalent features (same capacity and fire resistance) if the ones in place are out of date or have been used.
- To tell the crew:
 - where the extinguishers are and how they work,
 - where the release aperture is situated in the engine compartment,
 - where the emergency exits are.
- Make sure the extinguishers can be reached easily when people are on board.
- Make sure that the ventilation openings in the engine (and generator, if installed) compartment are well cleared.

Keep the bilge clean. Regularly check that there is no fuel or gas vapour.

For protection of the deck, the vessel owner/user should provide at least one fire bucket complete with rope in an immediately accessible position.

Do not store combustible materials in the engine compartment.

If non-combustible materials are stored in the engine compartment they must be secured so there is no danger of them falling on machinery and they do not obstruct access to and from the compartment.

Always fasten the curtains open when the gas cooker is working.

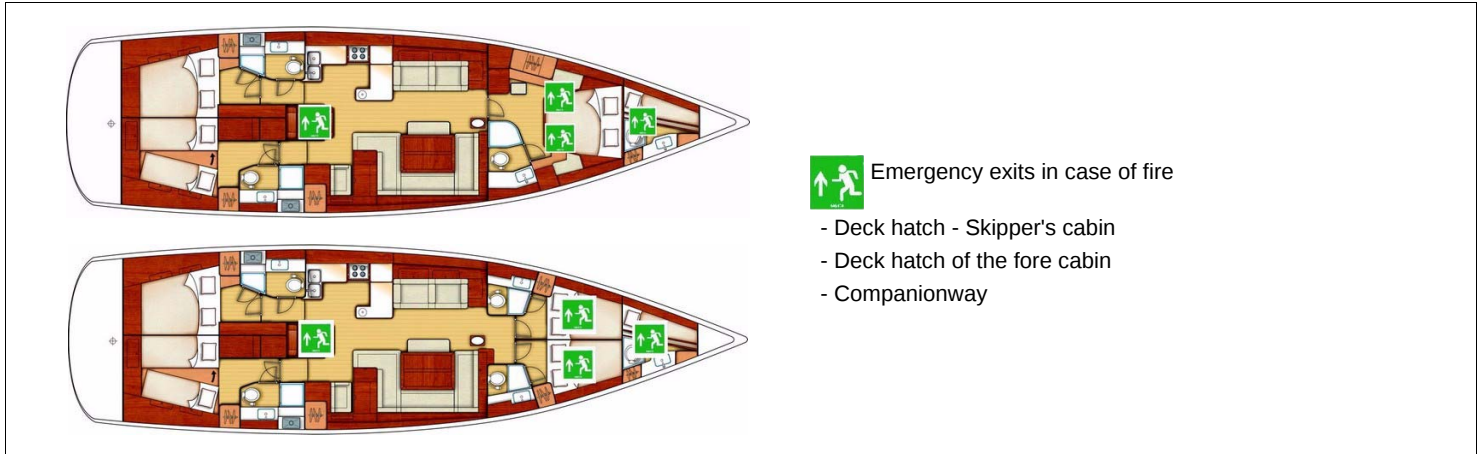
Exits other than the doors and hatches of the main companionway, equipped with permanently fitted ladders, are identified with a symbol.



WARNING

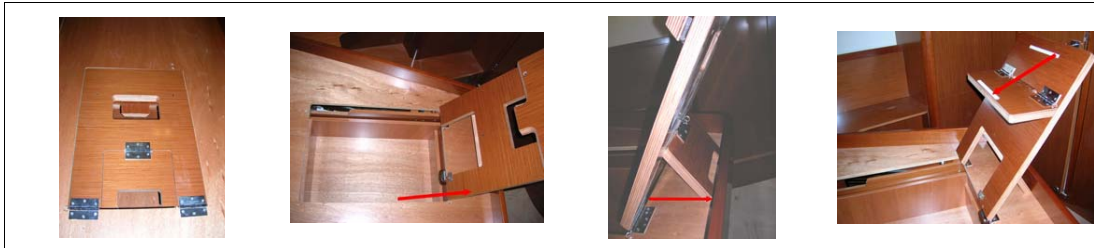
- Keep an extinguisher handy in case the fire should start again.
- Fire fighting equipment (portable extinguishers, fire blankets and buckets) must be permanently and immediately accessible.

EMERGENCY EVACUATION AND LOCATION OF EXTINGUISHERS



PROCEDURE TO EXIT THROUGH THE FORWARD CABIN DECK HATCH

1. Remove the mattresses and the deck panel.
2. Lift up the still folded step.
3. Check the obstruction.
4. Open the step (attached with velcro).
5. Open the deck hatch.
6. Exit.



Safety 2



Position of portable extinguishers (not supplied)

- Hanging locker - Starboard aft cabin
- Saloon seating
- Hanging locker - Forward cabin
- Cockpit locker

EXTINGUISHERS

The extinguishers are part of the compulsory equipment.

An extinguisher or a fire blanket shall be set less than 2 m from any flame appliance.

Extinguishers must be placed less than 5 m from any berth.

It is compulsory for an extinguisher to be placed less than 2 m away from the extinguisher aperture of the engine compartment.

An extinguisher shall be less than 1 m from the steering station.

The extinguishers must be in position (see "Extinguisher positions" diagram).

Extinguisher, per unit, minimum capacity 5A/34B.

For the OCEANIS 58: 25A/170B(equivalent 5 extinguishers of this minimum capacity).



DANGER

-There may be danger of fire or explosion if direct or alternating current systems are incorrectly used (Refer to chapter Electricity).



WARNING

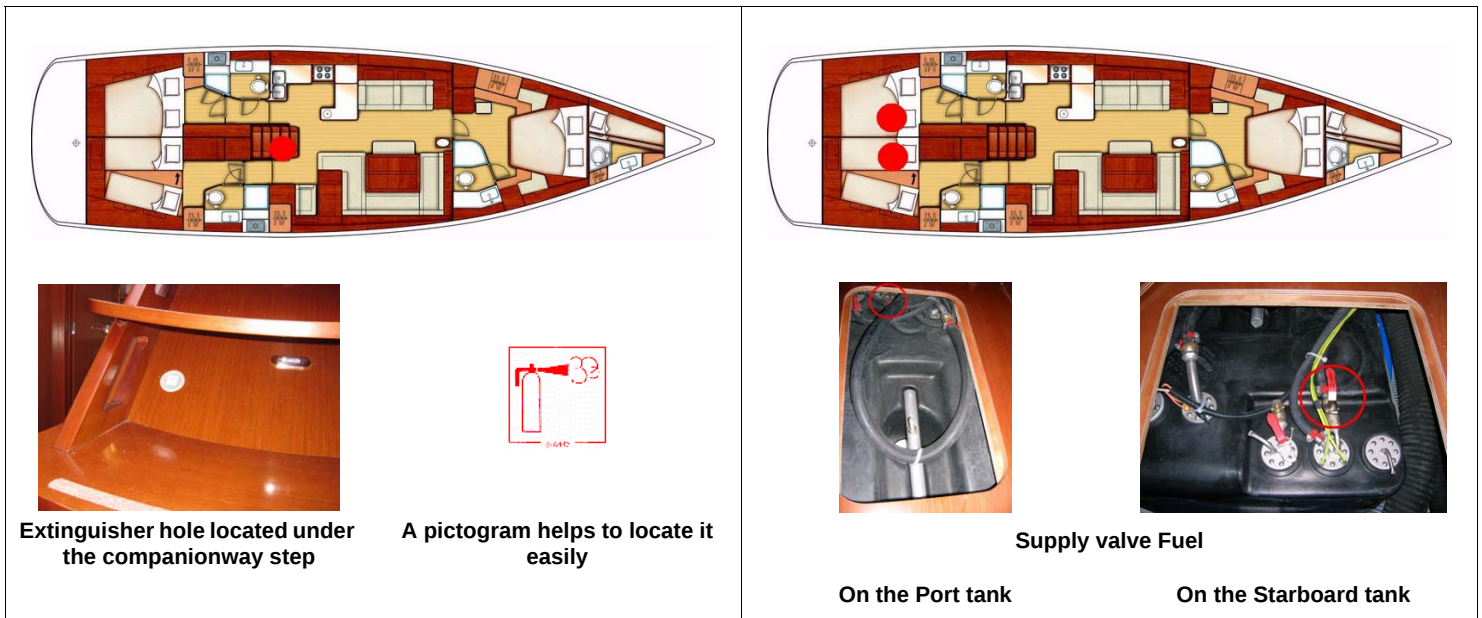
- Do not obstruct the ways to the emergency exits.
- Do not obstruct the safety controls (fuel oil valves, gas valves, power switches).
- Do not block the extinguishers placed on shelves.
- Do not leave the vessel unattended when a cooker or heater is in use.
- Do not use gas lamps in the vessel.
- Do not alter the vessel systems (electrical, gas or fuel).
- Do not fill up a tank or change a gas cylinder when an engine is running or a cooker or heater is on.
- Do not smoke while handling fuels or gas.



WARNING

- The **CO²** extinguishers shall be used only to fight **electrical fires**.
- Clear the area immediately after use in order to avoid suffocation.
- Air before entering.

POSITION OF FUEL VALVE AND ENGINE COMPARTMENT EXTINGUISHER APERTURE



Safety 2

The engine compartment has a port that makes it possible to inject the extinguishing product inside without opening the usual access hatches.

INSTRUCTIONS TO FOLLOW IN CASE OF A FIRE IN THE ENGINE COMPARTMENT BILGE:

- Stop the engine.
- Switch off power and stop fuel supply.
- Block off the air supply from the air inlets and outlets of the engine.
- Inject the extinguishing product through the aperture.
- Wait.
- Open the access hatches and repair.

USE OF THE MANUAL BILGE PUMP



Location



Operation

Capacity: 40,5 litre / minute

Safety 2

BILGE PUMP SYSTEM

PROCEDURE TO BE FOLLOWED

- Switch on power to the electric bilge pumps.
- If necessary activate the manual pump.
- Identify the source of the leak by tasting the water and decide on the relevant action to be taken:
 - freshwater = watertank leak.
 - seawater = breach of hull.

ELECTRIC BILGE PUMP

The first electric bilge pump is located in the sump well.

The second electric bilge pump is located in the plumbing panel behind the starboard mess room backboard.



Capacity: 107 litre / minute



Capacity: 20 litre / minute

Operation:

The electric bilge pumps are connected to the 12V service circuit. To enable operation the 12V circuit must be activated by turning on the battery switches.

You can energize the electric bilge pump from the electrical panel.

On the electrical panel - three possible positions : OFF / Automatic / Mechanically operated.

In the automatic position each pump is set off automatically by a trip switch located in the sump area or in the bottom of the hull.

MANUAL BILGE PUMP

The manual bilge pump is located in the cockpit behind the rudder wheel to port.

The control arm of the pump shall be kept accessible whatever the circumstances.



WARNING

- The bilge pump system is not designed to provide buoyancy to the boat in case of damage.
- The bilge pump system is designed to drive out the water being either sea spray or leaks but absolutely not the water coming through a hole in the hull, this hole being the result of a damage.
- Do not let the pumps run while dry, this may cause them damage.
- The water in the bilge shall be kept at its minimum.
- Check the functioning of each bilge pump regularly.



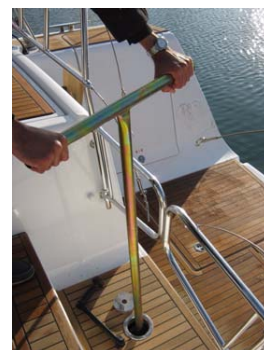
SAFETY PRECAUTIONS

- Clean off debris which could block the pump intake points or strainers. If the watertight partitions which seal off the fore and aft points are fitted with valves they must be closed at all times and only opened to drain water into the main bilge.

USE STEERS FRANK OF HELP



Sector access port



Tiller in position

Safety 2

■ EMERGENCY TILLER

The emergency tiller is in an aft locker and shall be easy to get to.

To operate the tiller:

- Use a winch handle and unscrew the tiller cover situated at the back of the cockpit.
- Insert the tiller into the rudder stock and make sure it is fully secure in the square.
- If the automatic pilot is connected and is working after the tiller damage, use it.
- Disconnect all apparatus linked to the rudder stock to use the emergency tiller.



ADVICE - RECOMMENDATION

-The emergency tiller is designed only to be able to continue underway at a reduced speed in case of steering gear failure.

Hull

- Maintenance of the Hull
- Lifting

LIFTING



Wetted area : 80 m² (All versions)

Hull 3

■ MAINTENANCE OF THE HULL

The materials and equipments of your boat have been selected because of their high quality and performance and ease of maintenance. However you shall carry out a minimum maintenance in order to protect your boat from outside attacks (salt, sun, electrolysis ...).

Preferably wash your boat on shore.

Use as few cleaning agents as possible.

Don't use solvents or aggressive detergent agents. Don't discharge cleaning agents into the water.

■ LIFTING

The lower hull of your boat should be covered with an anti-fouling paint which will prevent the adhesion of marine growth.

The nature of the water in which the boat sails will determine the choice of the anti-fouling paint as well as the frequency of hull stripping and painting. Do not hesitate to take advice from your specialists.

Refer to chapter 11 for launching instructions.

Before applying anti-fouling paint never:

- Do any sandblasting.
- Use any other solvents than ethylic alcohol.
- Use detergents under pressure.
- Use scrapers.
- Do any sanding other than a light rubbing down by hand with a grade 400 wet abrasive paper (to roughen up the hull before the first coat).

If cleaning of the anti-fouling paint has to be done with a high pressure hose:

- The water temperature must not exceed 15 °C.
- The water pressure must not exceed 150 bars.
- The distance between the hose nozzle and the hull must not be less than 10 centimetres.

Follow the supplier's instructions very closely when applying the anti-fouling paint.

All these hull maintenance operations can be carried out by your dealer.



PRECAUTION

- Consult the harbourmaster's office to find out the conditions of water use and the maintenance area for cleaning your vessel.
- It is necessary to seek the advice of your concessionnaire with regard to gel-coat repairs.



PRECAUTION

- When applying the anti-fouling paint do not paint over the electronic instrument sensors nor the anodes.
- All bronze or steel surfaces, including the propellers, should be protected by a suitable antifoul paint (consult your dealer).



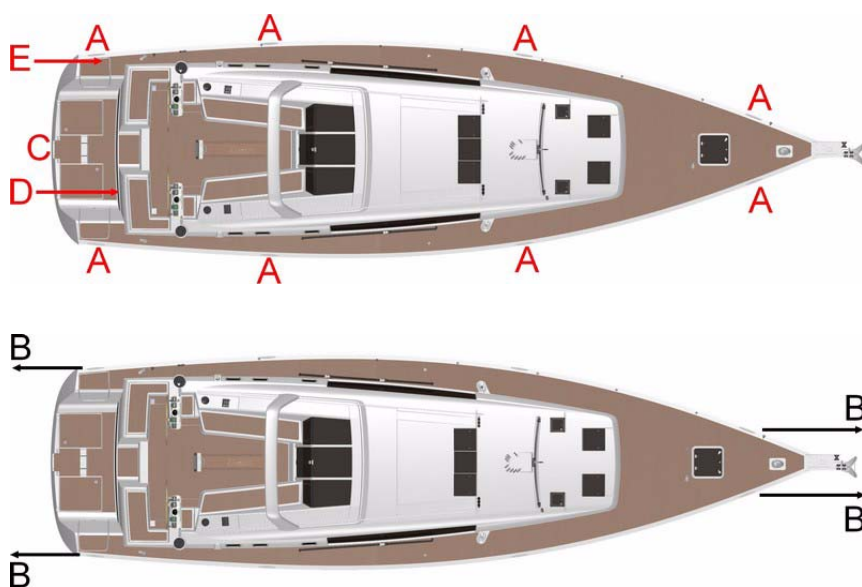
ADVICE - RECOMMENDATION

- During the refit, check the anodes (See "Motorisation" chapter).
- When the boat is stored at a dry dock, the corrosion protection is not as effective due to oxidation of the anodes: even the new anodes oxidize the surface. Before returning the boat into the water, clean the anodes.
- Cleaning anodes: Use sandpaper. Do not use metal brushes or steel tools to clean the boat, it may damage the galvanic protection.
- Replacing the anodes: The anodes are fastened with screws and nuts. First, remove the screws and nuts that hold the anode, then clean the contact surface. Press the new anode to obtain a good electrical contact.

Deck

- Navigation - Deck Layout
- Stability
- Prevention of man overboard
- Mooring lines
- Towing
- Mooring
- Maintenance of the Deck

NAVIGATION - DECK LAYOUT



- A. Mooring cleats
Jack-lines to be fixed to the mooring cleats
- B. Towing:
 - at the bow, to be towed
 - at the stern, to tow
- C. Swimming ladder (means of coming back onboard)
- D. Mount Outboard (not supplied)
- E. Lifebuoy support bracket (not supplied)



WARNING

-Maximum weight of outboard (not included) must not exceed 20 kg.



Outboard engine bracket (Ref D)

Deck 4

■ STABILITY

Breaking waves represent a serious danger for stability and for taking in water. Close the companionway doors and hatches in heavy seas.

During sailing keep all the portholes, windows and doors closed.

- The stability is reduced when you add weight in the upper parts.
- Stability may be reduced when towing a boat or when heavy weights are lifted with the davits.

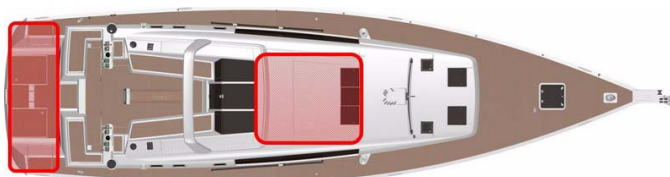
■ PREVENTION OF MAN OVERBOARD

Regularly check the guard-rails:

- With metal guard-rails, watch for corrosion particularly at connecting points.
- With synthetic guard-rails, change them as soon as they show signs of wear due to chafing or UV.

Areas forbidden when sailing:

- Aft quarterdeck.
- Roof.



■ MOORING LINES

A sufficient number of mooring lines suitably sized and suitable for the environment shall be on board for mooring your boat.

- Always manoeuvre your boat using the engine.
- Make allowance for the current and wind when you handle your boat.
- Protect your boat to the highest degree with suitably sized fenders.
- Always keep the mooring ropes unfouled and stored away.
- Handle your boat at a reduced speed.

AFTER MOORING

- Protect the mooring lines against chafing with plastic sleeves.
- Make allowance for the variations in tides if need be.



DANGER

- Wear your life jacket.
- In heavy weather, wear your safety harness and fasten yourself to the boat.
- When at sea close the guardrail side-opening or openings.
- Do not try to stop the boat using a boat hook or your foot, your hand or any other part of the body.



WARNING

- The sudden closing of a locker due to a gust of wind or movement of the boat could result in injury.



ADVICE - RECOMMENDATION

- Close the deck hatches and portholes before each trip (including the companionway hatch in heavy weather).

Opening mechanism / Closure
Opening hatch



Location: Cockpit table

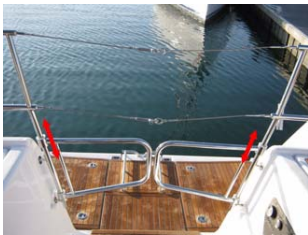
1. Control (upward and downward motion)
2. Key - Locking
3. Remote control

To unlock (upward / Companionway - Manual)
Location: Technical room



Access - Cockpit

Must be secured while sailing



To unlock upward / Companionway Manual

Location: Cockpit locker - forward



Access



Deck 4

Cockpit table



Rope locker



Hydraulic gangway - Rotary



OPERATION

The gateway combines the functions of gateway and davit.

Maximum permitted load: 110 kg: 250 kg.

Open length: 2,70 m.



WARNING

-Refer to the manufacturer's instructions for use and maintenance.

Deck 4

■ TOWING

TOWING BOAT

- Tow another boat at a reduced speed and as smoothly as you can.
- Pay particular attention when you throw or catch the towing rope (it may foul on the propeller).

Note: *The stability may be reduced when you tow a boat.*

TOWED BOAT

Keep steering your boat and see to it that you stay in the wake of the towing boat.

Inappropriate towing can damage your vessel, do not tow at more than 6 knots.

■ MOORING

As a rule, set the anchor in at least 3 times the depth of water.

ANCHORING WITHOUT WINDLASS

- Have your boat pointed into the wind and without speed.
- Pay out the chain while moving back slowly.
- Once the anchor snags, make it fast by reversing slightly.
- Secure the hawser or the chain to the cleat.

ANCHORING WITH ELECTRIC WINDLASS

- Turn on the boat engine.
- Check that the electrical supply of the windlass is switched on (battery switch, circuit breaker).
- Use the remote control to activate the windlass in lowering mode. Let the chain feed out by keeping the lowering button on the remote control pressed down.
- Let the chain out while moving backwards slowly and as straight as possible.
- Once the anchor snags, make it fast by reversing slightly.
- Secure the hawser or the chain to the cleat.



WARNING

Windlass operations are dangerous:

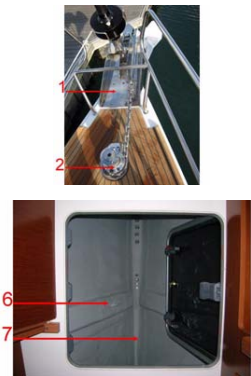
- Always keep the anchor chain or rode free and unfouled.
- Always proceed with care, using gloves and always wearing shoes.
- If your boat is equipped with the twin control optional extra, make sure you use **only one** control at the same time.



PRECAUTION

- Before anchoring check the depth of water, the power of the current and the nature of the sea bed.
- Anchoring manoeuvres with the electric windlass can only be carried out with the engine running.

ELECTRIC WINDLASS - BREAKER - FUSE

		Access: Mooring locker - Skipper's cabin 1. Bow fitting 2. Windlass 24V 2000W 3. Handle position 4. Smooth gypsy head 5. Chain rim - 12 mm diameter 6. Clinch 7. Mooring locker 8. Remote control
---	---	--

	Location Battery switch  1. Battery switch "service positive" 24V 2. Battery breaker - "positive terminal - engine" 12V 3. Battery switch "engine negative" 12V 4. Battery switch "service negative" 24V	Breaker - 125A Location: Port aft cabin 
---	--	---

Operation relay - Access: Skipper's cabin



Deck 4

ANCHORING BY HAND WITH USE OF A MANUAL WINDLASS

- Release the windlass brake using the handle located in the chain locker so as to allow the chain lifter to turn freely and to release the anchor from the stem fitting
- Re-engage the brake and let the anchor hang until the mooring position is reached.
- Have the boat pointed into the wind and without speed.
- Release the brake and pay out the chain slowly.
- Control the speed of anchor lowering using the brake.
- Once the anchor has taken hold re-engage the brake and secure the hawser to the cleat.

HEAVING UP THE ANCHOR

- Lock the cable lifter snubber.
- Ensure the chain is properly set on the cable lifter.
- Slowly go near the anchor, using your engine (Don't use your windlass to winch the boat).
- Heave the anchor completely.
- Visually check the last meters till the anchor gets into contact with the davit.
- If you just change berth, check the position of the anchor on the stem fitting.
- For sailing, store the anchor in the chain locker or fasten the anchor to its roller.
- For electrical windlasses cut off the power supply as soon as the anchor has been lifted.

STERN ANCHORING

~~Stem anchoring shall be performed with the engine detached.~~

- Secure the required length of cablet on the mooring cleat.
- Pay out the anchor line slowly.
- Take care not to damage the propeller or the rudder.



ADVICE - RECOMMENDATION

- After each trip rinse the windlass and anchor chain or rode with fresh water.
- Refer to the manufacturer's instructions for windlass maintenance at the beginning or end of the season.
- Check the swinging area once the boat is at anchor.



ADVICE - RECOMMENDATION

- For sailing with anchor in position:
- Let out the tension in the chain using the windlass.

Deck 4

■ MAINTENANCE OF THE DECK

Preferably wash your boat on shore.

Use as few cleaning agents as possible.

Don't use solvents or aggressive detergent agents (Refer to chapter 3 "Hull").

Don't discharge cleaning agents into the water.

Regularly brush the deck with a degreasing shampoo and fresh water.

DECK FITTING

- Rinse thoroughly all your equipments with fresh water.
- Periodically lubricate turnbuckles, winches, tracks and travellers with water-repellent grease. Thoroughly and frequently wash off the pulleys and sheaves with clear water.

SOLID WOOD ON EXTERIOR WOODEN PANELLING

Regularly clean the woodworks with fresh water using a sponge (if need be add some gentle soap).

PLEXIGLAS

- Rinse plexiglas with fresh water.
- Use a polish paste for thin scratches.
- Consult your dealer concerning deep scratches.

EXTERIOR CUSHIONS

Bring the removable cushions inside (washed with soapy water then dried) when the vessel is unoccupied.

STAINLESS STEEL

Stainless steel is not incorruptible and requires a minimum of upkeep:

- The use of chrome tools is preferable whenever handling stainless steel.
- Re-nourish the protective film regularly with passivation paste (consult your dealer).



PRECAUTION

- Consult the harbourmaster's office to find out the conditions of water use and the maintenance area for cleaning your vessel.
- Don't use solvent, alcohol, acetone on plexiglas.



ADVICE - RECOMMENDATION

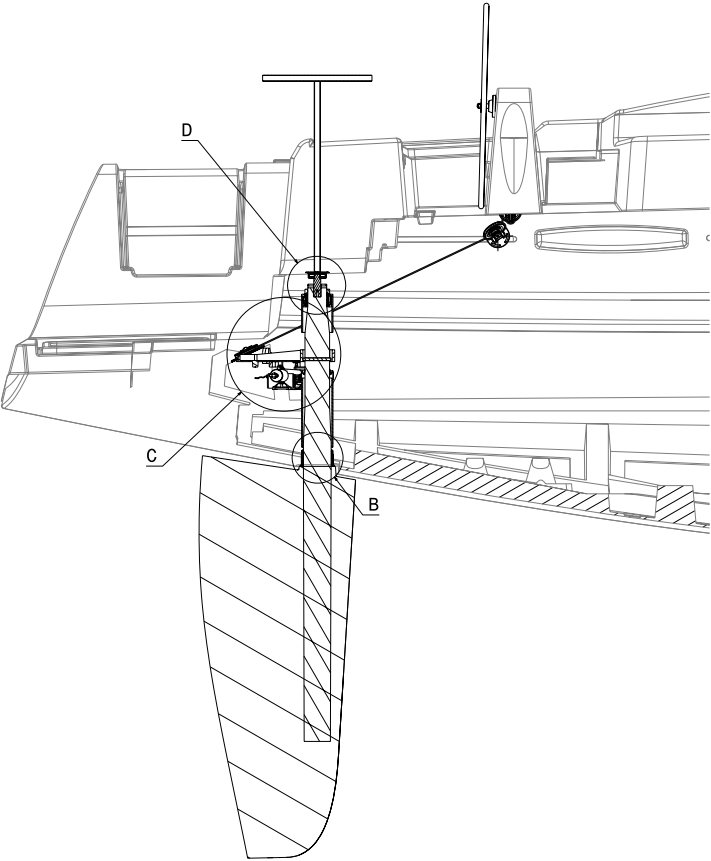
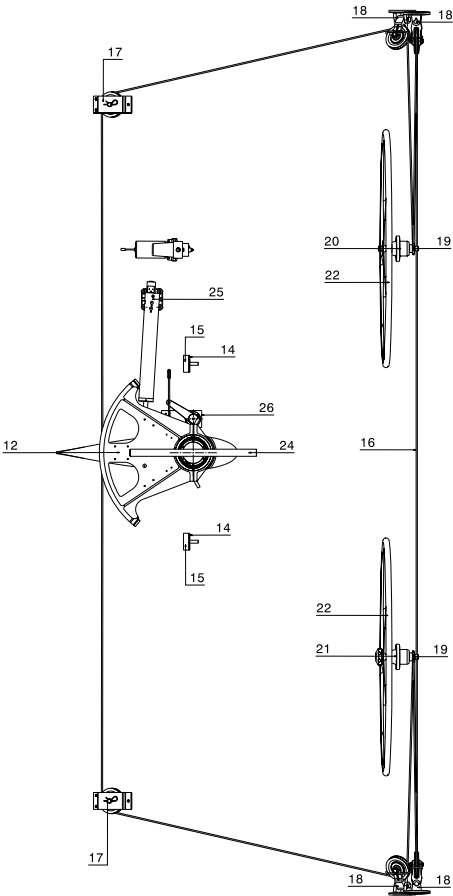
- Use only products similar to the ones that are included in the maintenance case you have been delivered with your boat.
- Don't use a pressure washer.

Steering system

5

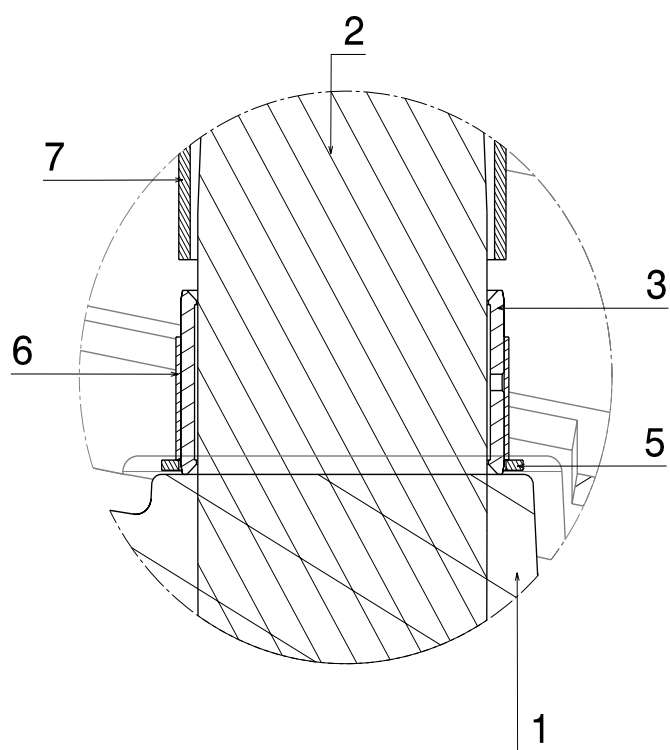
■ Steering Gear

STEERING GEAR

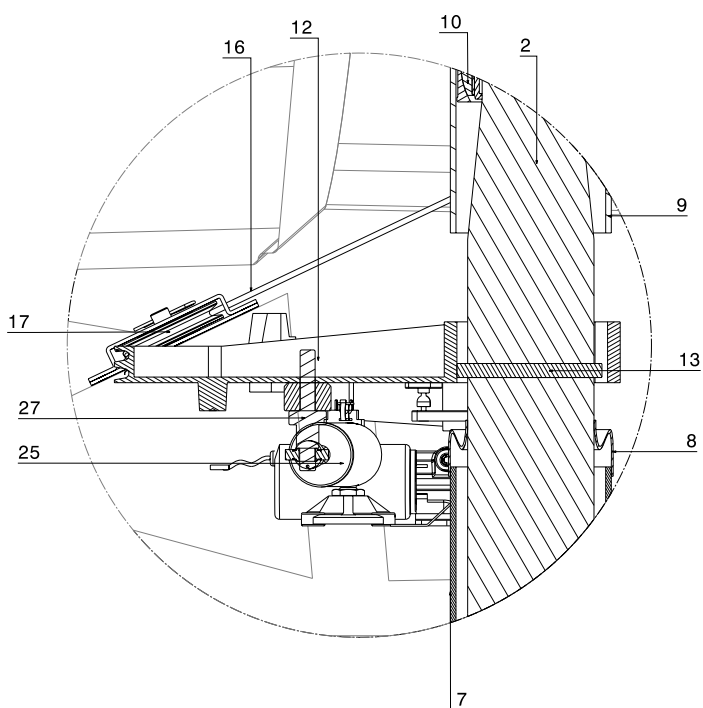


Steering system 5

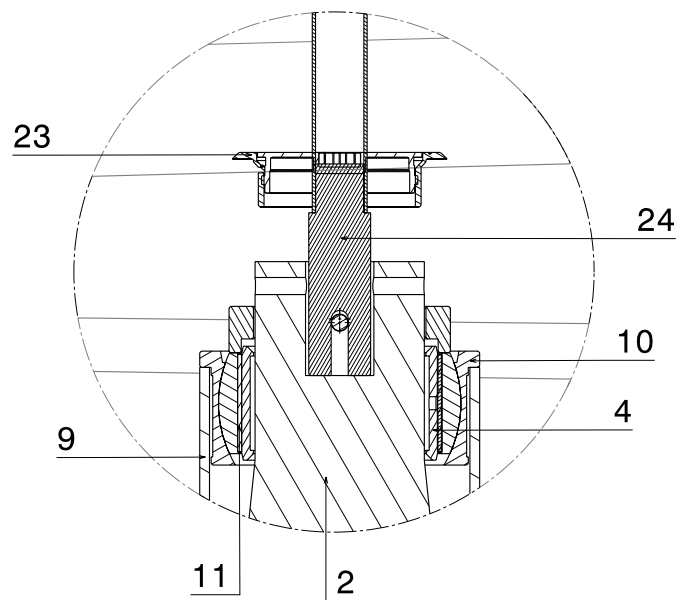
Detail B



Detail C



Detail D

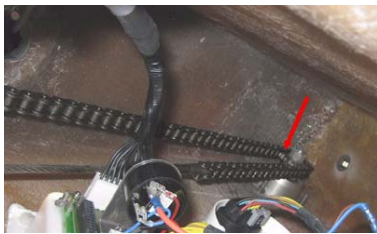


Steering system 5

REF	Designation
1	Rudder
2	Stock
3	Lower fret - 170 mm diameter
4	Upper fret - 120 mm diameter
5	Balance bush
6	Bronze bush - 170 mm diameter
7	Rudder port tube
8	Stock seal
9	Rudder port tube
10	Alignment bearing - Upper
11	Bronze bush - 120 mm diameter
12	Sector
13	Pin
14	Mount - End stop
15	End stop
16	Tiller cable
17	Sheave housing
18	Sheaves
19	Chain
20	Steering Gear - without brake
21	Steering Gear - with brake
22	Steering wheel
23	Sector access port
24	Emergency tiller
25	In-line piston
26	Mount - Tiller angle indicator
27	Axis cylinder

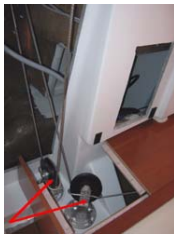
Steering Gear

Access: Deckhead - Aft cabin



Sheaves

Access: Deckhead - Aft cabin



Sector

Access: Compartment - Aft quarterdeck



Steering system 5

■ STEERING GEAR

MAINTENANCE

- Regularly check:
 - The tension in the steering cables.
 - The tightness of the steering system components.
- Don't tighten the steering cables excessively.
- Lubricate all the elements.

Maintain the nylon, ertalon or teflon bushes with only a suitable lubricant.

Note: Do not hesitate to consult your dealer about system maintenance.

CABLE ADJUSTMENT - STEERING SYSTEM

The steering gear is assembled and pre-adjusted at the factory, however, only actual use at sea will enable the steering cable to find its definitive position around the wheel drum.

For this reason, it is necessary to re-adjust the gear after the first few sea outings.

The adjustment is made on the nut and bolt system integral with the steering cable at the join with the profile. To check the adjustment exert a perpendicular force on the cable between the wheel drum and the return sheaves located on the hull.



WARNING

- Learn how to judge the necessary distance of deceleration for the vessel to come to a complete stop.
- Refer to chapter 2 "Safety" for use of the emergency tiller.



WARNING

- The steering system is a feature of sailing safety and for this reason must be verified at least once a year.
- **THE STEERING CABLE MUST BE CHANGED EVERY 10 YEARS.**



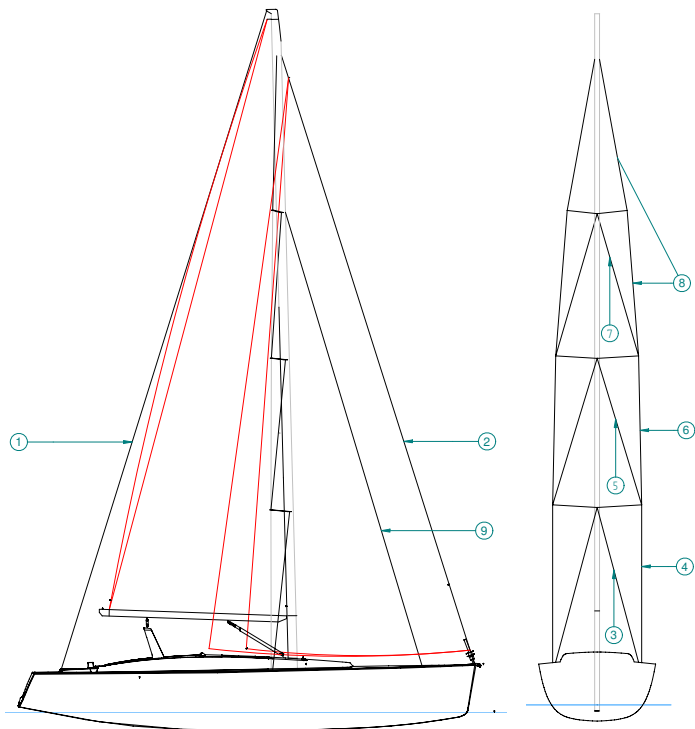
ADVICE - RECOMMENDATION

- The emergency tiller is designed only to be able to continue underway at a reduced speed in case of steering gear failure.

Rigging and sails

- Standing rigging
- Running rigging
- Winches
- Setting the sails
- Sails

ALL VERSIONS



REF	Rigging
1	Backstay
2	Forestay
3	D1
4	V1
5	D2
6	V2
7	D3
8	V3D4
Optional equipment:	
9	Fore stay

Rigging and sails 6

■ STANDING RIGGING

Your BENETEAU dealer was responsible for stepping the mast of your boat.

After masting your vessel and after having sailed for the first time it is necessary to seek the help of a qualified specialist in order to carry out a rigging check.

MAINTENANCE

Before each trip, carefully inspect the mast from top to bottom.

Periodically check the rigging tightening and the lock nut or pin locking (you should check it for the first time after a few days sailing in all types of weather).

Hydraulic backstay (optional)

Location: Port cockpit



Control



Hydraulic fluid tank

Step - Mast



DANGER

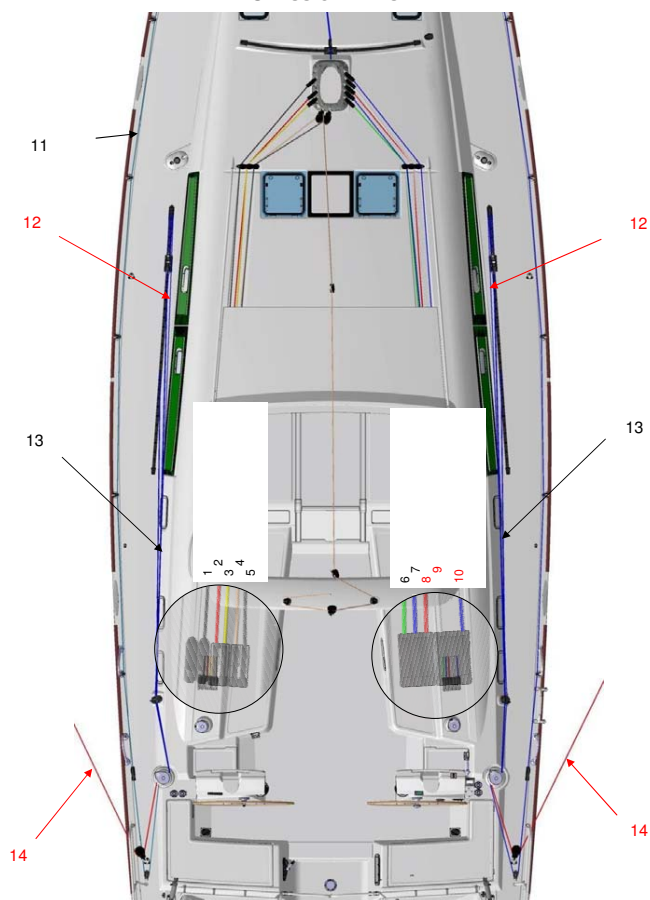
- To hoist a crew member up to the top of the mast, make a bowline with the halyard directly on the bosun's chair ring
- (never use the halyard snap shackle or shackle).
- Do not hoist a crew member when sailing in heavy weather.



ADVICE - RECOMMENDATION

- Your dealer BENETEAU can carry out all maintenance operations or recommend a skilled specialist to do so.

**GENERAL HANDLING DIAGRAM
CLASSICAL MAST**

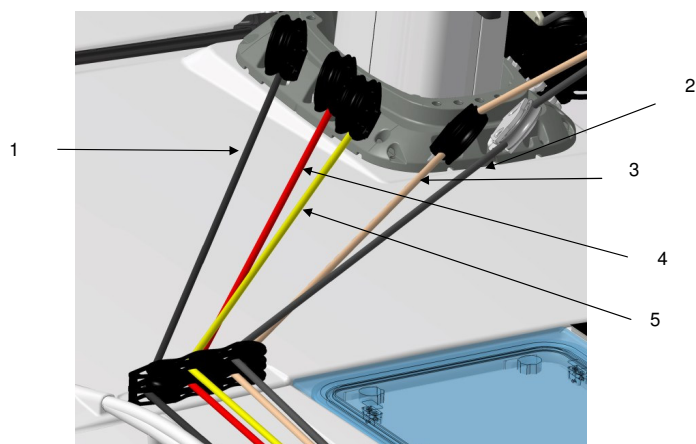


REF	Designation
1	Main halyard
2	Mainsail foot
3	Reef 1
4	Mainsail sheet
5	Kicking strap
6	Reef 2
7	Reef 3
8	Spinnaker halyard
9	Fore stay sail halyard
10	Staysail sheet
11	Genoa furler line
12	genoa car adjustment
13	Genoa sheet
14	Spinnaker sheet

Rigging and sails 6

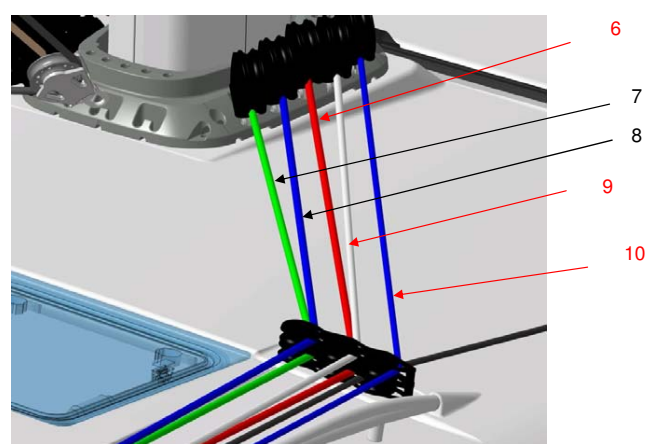
MAST FOOT SYSTEM CLASSICAL MAST

PORT SIDE



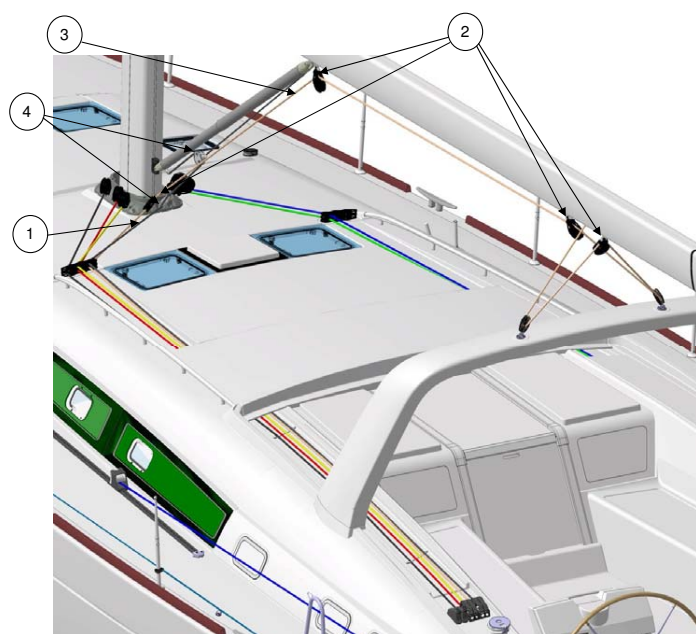
REF	Designation
1	Main halyard
2	Kicking strap
3	Mainsail sheet
4	Mainsail foot
5	Reef 1

STARBOARD



REF	Designation
6	Spinnaker halyard
7	Reef 2
8	Reef 3
9	Fore stay sail halyard
10	Staysail sheet

MAINSAIL (CLASSIC) SYSTEM **CLASSICAL MAST**



REF	Designation
1	Kicker tackle
2	Single pulley
3	Mainsail sheet
4	Pulley

Rigging and sails 6

■ RUNNING RIGGING

MAINTENANCE

Lightly grease the sheave pins. Change any distorted or dented sheave. Inspect the pins of the sheaves at the top of the mast once a year.

Regularly check the condition of the jam cleat jaws.

Inspect the halyards for wear and condition.

Regularly clean the pulleys off (old grease, traces of rust) with clear water.

Slightly lubricate the block pins.

Avoid aggressive gybing in order to reduce premature wear on the sheets, attachment points and the gooseneck.

■ WINCHES

OPERATION

Avoid rope jamming during winch handling. Do not leave loose ropes on the winches but make them fast on cleats (except on the "Self Tailing" winches).

■ SETTING THE SAILS

CLASSICAL MAINSAIL

With the mainsail being on the deck:

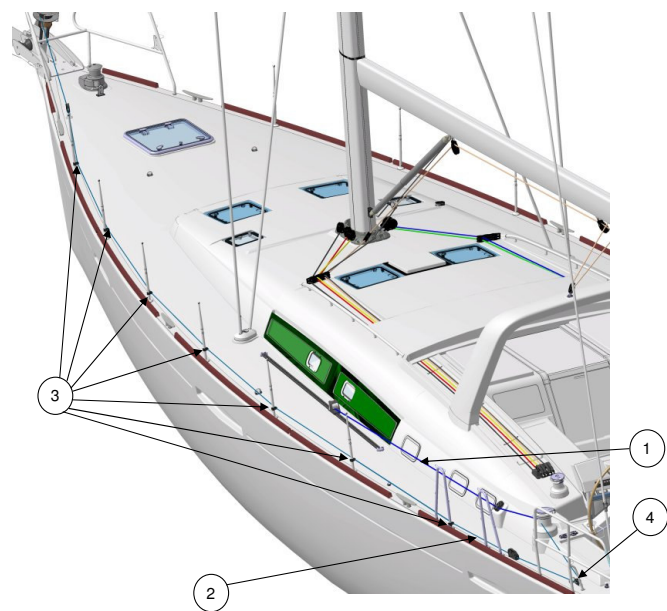
- Screw the pins of the mast sliders for battens into their boxes.
- Slide in the battens through the leech.
- Screw the box cap until you get the required tension (the tightening screw shall not project beyond the sail).
- Do not forget the small locking screw.
- Put the mainsail into the lazy-bag.
- Set the boom ring in velcro about level with the clew.
- Fit the mainsail onto its slides, begin with the headboard and finish with the tack.



WARNING

- Refer to the manufacturer's instructions to remove the winches and put them back.
- Improper refitting may result in accidents (e.g. kick of the crank handle).

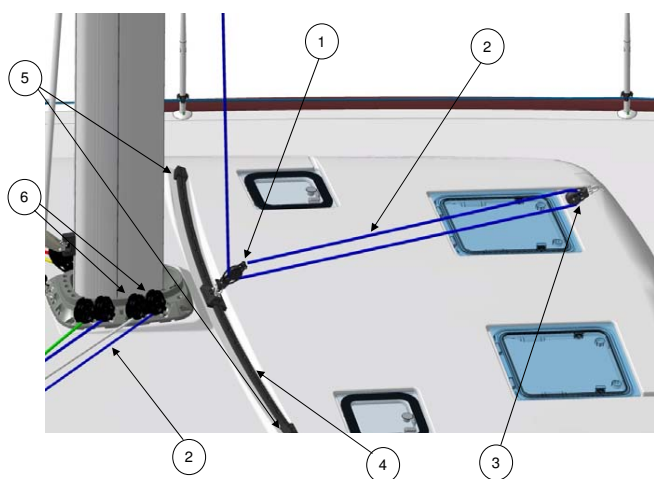
GENOA SYSTEM



REF	Designation
1	Genoa sheet
2	Genoa furler line
3	Stanchion fairleads
4	Single pulley - 57 mm diameter

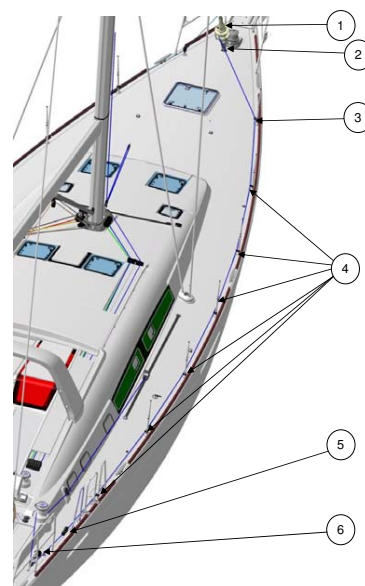
Rigging and sails 6

STAYSAIL SHEET



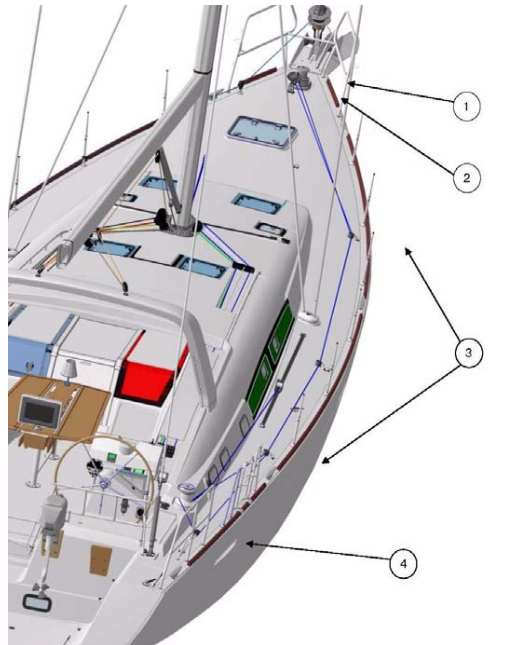
REF	Designation
1	Traveller
2	Staysail sheet
3	Swivel single pulley - 57 mm diameter
4	Track - Staysail
5	Rail end piece
6	Swivel single pulley - 57 mm diameter

FORE STAY SAIL FURLER



REF	Designation
1	Forestay sail furler line
2	Releasable fore-stay chain-plate
3	Stanchion block
4	Stanchion fairleads
5	Single clutch
6	Single pulley - 57 mm diameter

STAYSAIL TAKE-UP DRUM



REF	Designation
1	Staysail take-up drum
2	Releasable fore-stay chain-plate
3	Swivel plates
4	Single pulley (On sandow)

Rigging and sails 6

FURLING GENOA: FITTING

- Secure the head and halyard to the swivel. Secure the tack to the drum and sheets.
- Insert the bolt rope into the hole and hoist it and take care that you do not tear it.
- Have the halyard taut enough but hoist less taut than a sail on a normal stay. Hoist it until the horizontal creases disappear (Adjust the tension of the luff after a few sea trips).
- Pull on the line from the cockpit to furl the genoa.
- Before getting under way take advantage of a windless period of time and hoist the genoa.
- Hand pre-roll the drum to set the furling line on it.

Pay attention to the drum winding direction: The sacrificial strip of the genoa shall be wrapped outside.

Never force it in case it seizes when you furl or unfurl the head sails. Make sure that no ropes are caught in the furler.

MAINTENANCE

- Regularly rinse the drum and swivel.
- Lubricate the bearings if recommended by the manufacturer.
- Remove the sails if your boat is not to be used for a long time.

LAZY-BAG: FITTING

- Spread out the lazy-bag on the deck.
- Slide the battens in and close the batten pockets.
- Hank on the lazy-bag until you have the front part about level with the gooseneck.
- Fasten the lazy-bag to the tack with the strap provided.
- Stretch the lazy-bag from the back before you fasten the lazy-jacks.
- Put the mainsail into the lazy-bag.



ADVICE - RECOMMENDATION

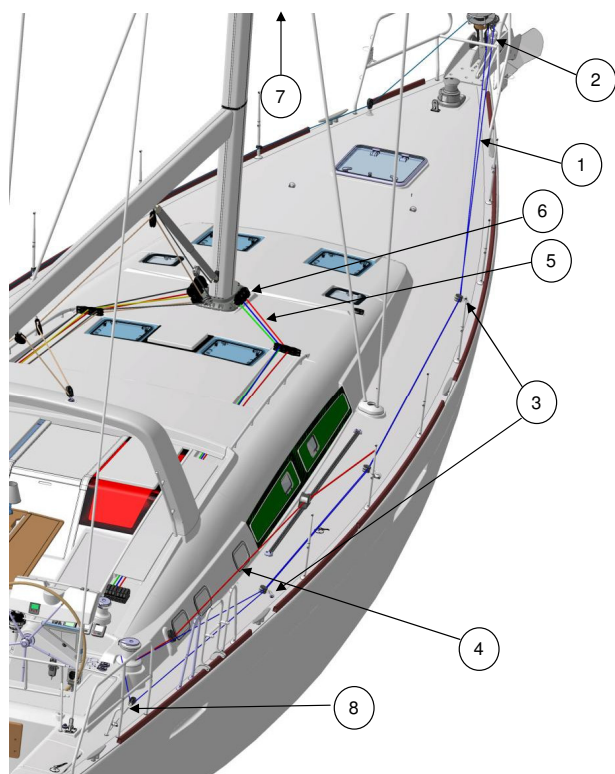
- When you are not sailing, slacken the genoa halyard.
- Install the lazy-bag before the mainsail.
- When the sail is unfurled, adjust the halyard tightness.
- Too much tightness may cause furling problems.
- After taking in a reef for the first time mark the halyard position at the clutch (marker pen or light stitched label) in order to be able to let out the sheet with precision in subsequent manoeuvres.



ADVICE - RECOMMENDATION

- Carry out the complete maintenance of the winches regularly (before and during the sailing season).
- Rinse the winches off regularly during the season.

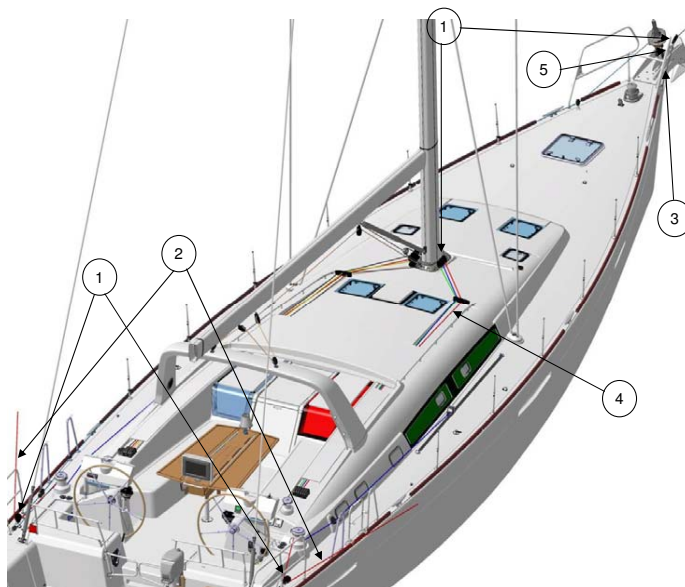
SYSTEM - CODE 0



REF	Designation
1	Furling line - Staysail take-up drum
2	Bobstay
3	Swivel plates
4	Spinnaker sheet
5	Spinnaker halyard
6	Swivel single pulley - 100 mm diameter
7	Tackle block
8	Single pulley (On sandow)

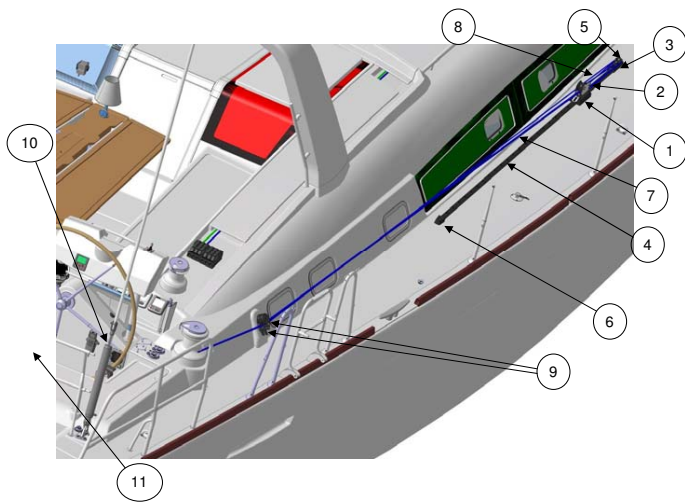
Rigging and sails 6

SYSTEM - ASYMMETRIC SPINNAKER



REF	Designation
1	Single pulley - 100 mm diameter
2	Spinnaker sheet
3	Spinnaker tack (On Cleat)
4	Spinnaker halyard
5	Bobstay

EASY SAIL



REF	Designation
1	Genoa car
2	Double blocks
3	Rail end piece - Mainsail (classic)
4	Track
5	Rail end piece - Genoa
6	Rail end piece
7	Genoa sheet
8	Genoa car adjustment
9	Single pulley - 75 mm diameter
10	Piston - Backstay
11	Cable adjustment - Hydraulic - Backstay

Rigging and sails 6

SAILS

The working life of a sail mainly depends on its being regularly maintained.

When sailing, trim the sails properly in accordance with the stresses in order to reduce the harmful strains on the fabric.

Avoid wear and tear: Use protective items against chafing on the the accessories with rough surfaces (protective items for spreaders, stanchions etc.).

Have a sail maker's kit and a user's manual so that you may carry out the emergency repairs waiting for the sailmaker's assistance.

SHORTENING THE STANDARD MAINSAIL

To shorten sail:

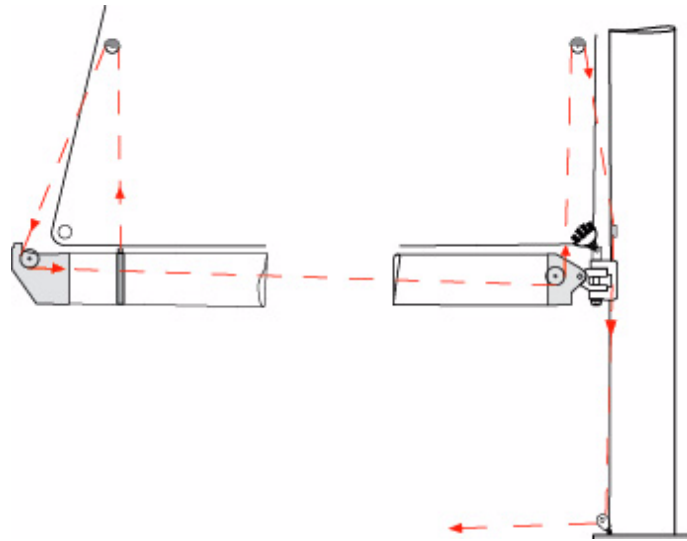
- Head into the wind.
- Slacken off the kick strap.
- Slightly slacken the mainsail sheet.
- Slightly slacken the mainsail halyard.
- Take in the reef line.
- Take up the slack in the mainsail halyard.
- Reset the mainsail sheet.
- Take up the kick strap slack if necessary.



ADVICE - RECOMMENDATION

-At the end of the sailing season, and if possible before winter, leave your sails to a specialist to have efficient maintenance and repairs.

AUTOMATIC REEFING SYSTEM



Rigging and sails 6

CLEANING AND MAINTENANCE

Rinse the sails with fresh water from time to time and dry quickly in order to avoid mildew.

Avoid drying the sails to windward when on the mast (when the sails lift, the seams are worn, the sails may be torn by the rigging).

HAULING DOWN THE STANDARD MAINSAIL

To haul down the mainsail:

- Haul up.
- Slacken off the kick strap.
- Take up the slack in the Lazy bag and uphaul ropes.
- Slacken off the mainsail halyard while taking up the reef lines to control the mainsail descent.
- Fold the mainsail into its lazy-bag.
- Take up the mainsail sheet to immobilise the boom.
- Immobilise the mainsail halyard.

SAIL STORAGE/FOLDING

Avoid storing a wet sail to prevent the appearance of mould and mildew.

Flake the sail parallel to the foot, then roll it up to the bag dimensions.

PROTECTION

UV rays are harmful to polyester and nylon. If the sails remain on the mast, even for 24 h, protect them with a cover or a protection fabric placed on the leech and foot of the furled sails.

Our distributor network offers you accessories that have been selected by the yard and are consistent with your needs.

Interior

- Introduction
- Interior maintenance
- Maintenance of fabrics

7

■ INTRODUCTION

Version 3 cabins + Forepeak cabin



Version 4 cabins + Forepeak cabin



Interior 7

■ INTERIOR MAINTENANCE

INTERIOR

- Take advantage of the fine weather to take the settee and berth cushions out.
- Put the cushions vertically if you leave the boat for long.
- Use blinds to protect the inside of the boat against UV rays.
- Carefully remove all crumbs.
- Make sure the bilges are clean and dry.
- When the vessel is left for long periods, install a de-humidifier in the saloon making sure that all interconnecting doors are left open (bathroom, cabin and saloon) along with the cupboard and icebox doors.
- Defrost the fridge regularly.

INSIDE VARNISH

- Rinse the inside varnish with fresh water mixed with spot remover and shampoo.
- Polish the interior varnishing with a chamois leather.

■ MAINTENANCE OF FABRICS

STAIN REMOVAL

- Dab with a clean rag.
- Remove the stain with a solvent poured onto a clean rag. Never pour the solvent directly over the stain.
- Rub with a clean and dry rag.
- Brush the fabric against the grain.
- Use the vacuum cleaner when the fabric is dry.

PVC OR COATED FABRICS

- Use a sponge and water and soap (household soap type).



PRECAUTION

-For the PVC fabrics, don't use any solvent or solvent based product (pure alcohol, acetone, trichloroethylene).



ADVICE - RECOMMENDATION

- Preferably wash your boat on shore.
- Use as few cleaning agents as possible.
- Don't discharge cleaning agents into the water.
- Take the removable upholstery inside when the vessel is not being used.
- Place protective covers/awnings.
- Mark up each cover and foam when dismantling.

Suction-cup system to lift floors



SINK

Open



Closed



Interior 7

100% POLYESTER/DRALON JACQUARD

If you cannot remove the fabric:

- Clean with the vacuum cleaner.
- Clean with a foam for synthetic fabrics (please refer to the product instructions).

If you can remove the fabric:

- Hand wash with an ordinary washing powder at 30° C.

In both cases, dry cleaning is possible. Remove the stains as soon as possible with a damp rag.

COTTON JACQUARD

- Dry clean.
- Do not iron.
- Do not use hypochlorite.
- Remove the stains with fractionated petrol.

ALCANTARA

- Wash in warm water with a neutral pH soap.
- Dry it naturally.
- Dry clean with perchloroethylene.

LEATHER

- Use a leather cream for ordinary care.
- Do not use detergent.
- Do not use silicone based products.
- Clean with a sponge and soapy water.
- Remove ball point pen marks with methylated spirit.
- Remove the grease stains with an absorbent powder (e.g. talcum powder).

Water and sewage water

- Water tanks
- Water system - Distribution
- Water system - Drainage
- Sewage

WATER TANKS - LOCATION

Tanks

Location: Saloon
Capacity: 2 x 324 litre

Extra tank

Location: Forward cabin
Capacity: 330 litre

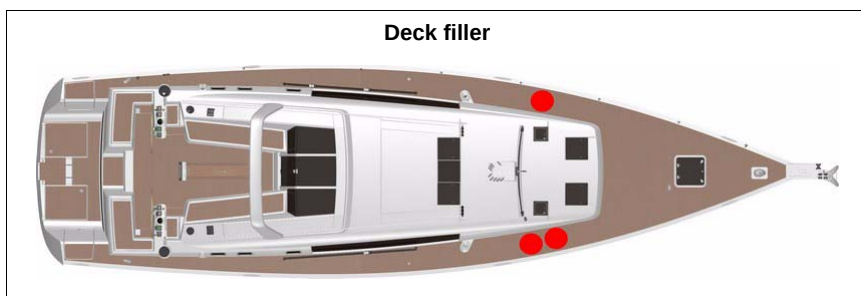


Gauge

Location: Electrical panel
Refer to the instructions for use



Deck filler



Water and sewage water 8

■ WATER TANKS

OPERATION

In order to prevent any handling mistakes, never fill the water and fuel tanks at the same time.

During filling, avoid handling contaminants near the fillers.

Open and close the filler caps with the suitable key.

Check the filler cap seals for condition during filling.

The tanks are fitted with overflow outlets and vents.

Never insert the water filling hose deep down into the system in order to prevent any over-pressure in the systems.



WARNING

-The tanks' nominal capacity cannot be fully used due to the load and the need to maintain the correct trim. A 20% reserve should be kept.

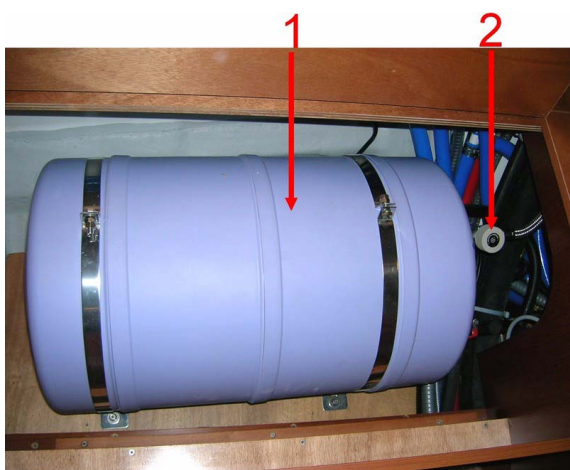


ADVICE - RECOMMENDATION

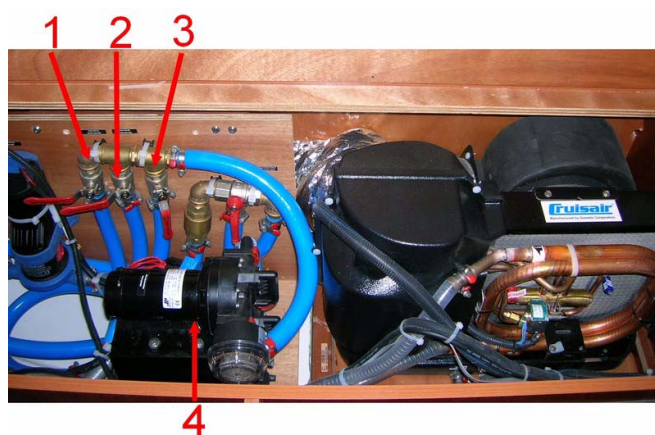
- Pay attention to the quality of the water for the filling up. Check if it is drinking water.
- It is possible to sterilize the tanks with a Clonazione tablet (sold at the Chemist's).
- If the boat is not used for long, purify the tanks and pipes with acetic acid (or white vinegar).
- For winter storage instructions and precautions, refer to Chapter 12.

PLUMBING BOARD
Location: Port saloon

Water heater



- 1. Water heater 60L 220V
- 2. Thermostatic mixer valve



- 1. Supply - Starboard tank
- 2. Supply - Port tank
- 3. Supply - Forward tank (additional)
- 4. Water pump 24V

Water and sewage water 8

■ WATER SYSTEM - DISTRIBUTION

USE OF THE WASHBASINS AND SHOWERS

- Close the valves and turn off the taps after use.

SEAWATER PUMP / FRESH WATER

The pump can have sea water or fresh water to the sink.

**Seawater inlet -
Under galley floor**



Control



WARNING

- Turn off the shore freshwater supply valve before leaving the vessel.



WARNING

- Bleed the cockpit shower circuits and the deck washing pump to prevent freezing.



PRECAUTION

- Never operate the water system equipment when the valve is closed or the tank is empty (the electrical equipment may be damaged).
- Check the water filter for condition (refer to manufacturer's instructions).
- Close the taps of empty tanks.

COCKPIT SHOWER SPRAY



Location



1. Mixer tap
2. Shower

SHORE FRESHWATER SUPPLY

Location



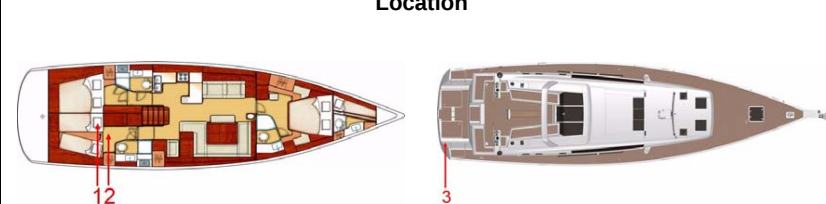


Selection valve -
Shore fresh water / On board water circuit
Location: Starboard saloon



SEA WATER DECK WASH PUMP

Location



Pump for deck washing + Filter
(Ref 1)



Seawater inlet
(Ref 2)



Connection
(Ref 3)



Water and sewage water 8

■ WATER SYSTEM - DRAINAGE

OPERATION

Waste water from the sink, washbasins and heads is drained off by thru-hull fittings with ball valves (the valve is closed when the valve handle is perpendicular to the hose, the valve is open when the valve handle is in line with the hose).

All the floors have holes (limber holes) for the water flow.

A watertight bilge tray under the engine receives the possible oil leaks.

A main sump located above the ballast receives water from the bilges.

The main sump is partially drained by an electric or a manual pump. Regularly dry the sump with a sponge.

Icebox drain pump + Drainage

Location: Under the kitchen cupboard



Control



WARNING

- Turn off shore water before leaving the vessel..



ADVICE - RECOMMENDATION

- Regularly check the valves and thru-hull seacocks for proper operation and watertightness.
- Turn off the valves when the water system is not in use.
- Visually check the water pump flow.
- Check the clamps and flexible hose connections for tightness.
- Pay attention to the seals for condition.
- Regularly make sure that the strum box and bilge are perfectly clean.
- Immediately switch off the electric system in case a pump is running while all the water supplies are turned off.
- In case of a leak check the system.

Sink draining - Galley



Access - Galley floor

Washbasin draining
Aft washroom - Port and starboard



Location: under the washbasin

Control -
Draining pump for shower

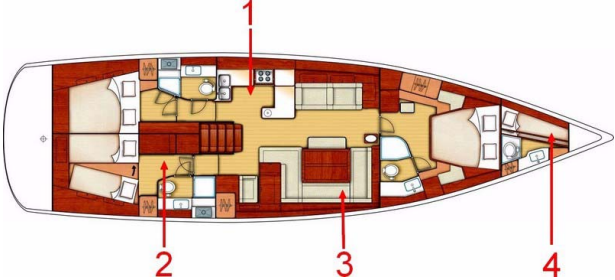


Draining pump for shower



Location: Under cabinet bathroom

Shower draining - Valve layout





Shower - Port aft
(Ref 1)



Forward shower + Washbasin
(Ref 2)



Shower - Starboard aft
(Ref 3)



Shower - Skipper's cabin +
Washbasin
(Ref 4)

Water and sewage water 8

USE OF TOILETS QUIET FLUSH



1. Rinsing out the bowl
2. Water filling to the left and bowl draining to the right

Layout of components: Under cabinet bathroom



1. Sea water filter
2. Electric pump quiet flush

The electric toilets operate with seawater only. A switch enables the water intake and drain cycle of the bowl to be activated. A switch enables the bowl to be rinsed.

Water and sewage water 8

SEWAGE

USE OF THE MARINE HEADS

Before you use the heads, check that the water intake valve and draining valve are open.

To empty the bowl:

- Set the control lever of the pump slantwise (FLUSH).
- Operate the pump.

To dry the bowl:

- Set the lever back vertical (DRY).
- Operate the pump.

To avoid blocking the toilets only use absorbent paper in reasonable quantities.

Schedule a regular rinsing through of the heads with fresh water.

Close the valves after each use (in particular when the boat is unattended).

RESPECT OF THE ENVIRONMENT

- Remain informed of local regulations concerning the environment and follow the codes of best practice.
- Do not drain the contents of the sewage tank near the coast or in zones where it is forbidden.
- Make use of the port or marina pump facilities to drain the sewage tank before leaving port.

Find out the international regulations against marine pollution (Marpol) and follow them as far as possible.



ADVICE - RECOMMENDATION

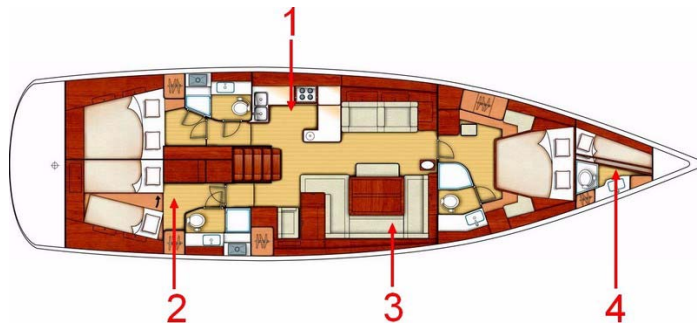
- When you are in a marina, use the club-house sanitary facilities (if there are).
- Since it is prohibited to discharge sewage water in certain marinas or countries it may be necessary to use the foul water holding tank ('WHT').



ADVICE - RECOMMENDATION

- Completely empty the black water system before leaving the vessel unattended in temperatures below freezing.

Seawater inlet - WC - Valve layout



WC - Port aft (Ref 1)



WC - Starboard aft (Ref 2)



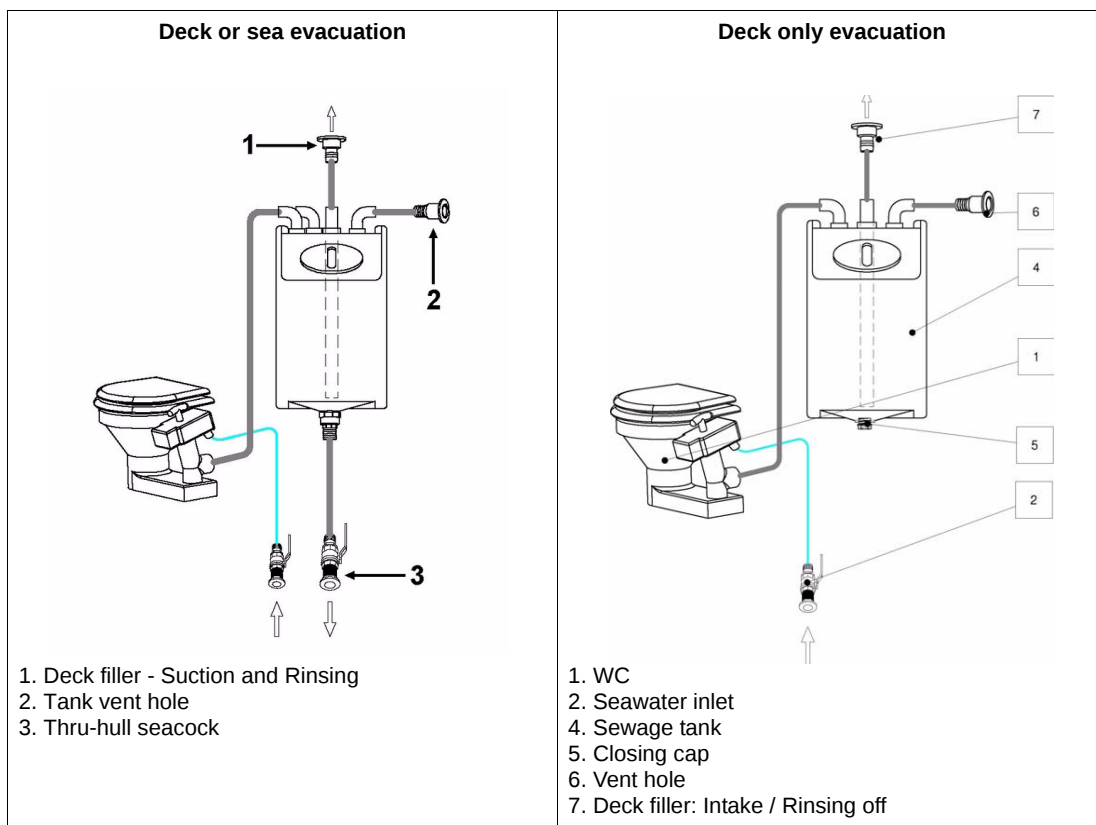
WC - forward (Ref 3)



WC - Skipper (Ref 4)

Water and sewage water 8

Black water circuit - Schematic diagram



Sewage tank



Location: in each bathroom
Capacity: 73 litre
50 litre (Skipper's cabin)



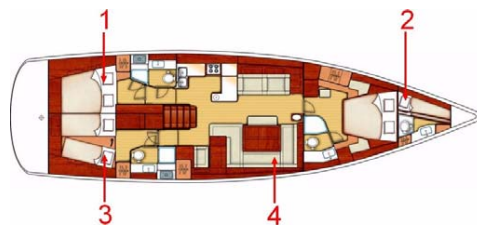
1. Switch - Gauge
2. Gauge - Sewage tank

Deck drainage

Location of deck fillers



Drain to sea - Valve layout



WC - Port aft
(Ref 1)



WC - Skipper
(Ref 2)



WC - Starboard aft
(Ref 3)



WC - forward
(Ref 4)

Water and sewage water 8

USE OF MARINE WCs FITTED WITH BLACK WATER TANK

Open the water intake valve (valve handle parallel to the pipe).

In the case of a direct discharge into the sea: Open the draining valve.

In case you store the waste waters in the tank: Make sure the draining valve is closed (valve handle perpendicular to the pipe).

To drain the bowl, set the control lever of the pump slantwise (FLUSH) then operate the pump.

To dry the bowl, set the lever vertical (DRY) then operate the pump.

In order to avoid clogging the heads:

- Only use absorbent paper in reasonable quantities.
- Schedule a regular rinsing through of the system with fresh water.
- Always retain a little water in the bottom of the bowl to avoid smells

To empty the tank:

- In an authorized area, open the draining valve.
- In a marina equipped with a system to suck the waste waters, put the sucking hose into the tank through the deck filler. Start the pump of the sucking system. The filler caps are opened and closed with an appropriate key. When the tank is empty, check the cap seal for condition then close the filler.



WARNING

-The tanks' nominal capacity cannot be fully used due to the load and the need to maintain the correct trim. A 20% reserve should be kept.



WARNING

-Ask for information about the laws in force in your country or your marina about discharging your waste waters into the sea.



PRECAUTION

-Close the valves after each use and above all when the boat is unattended.



PRECAUTION

-Regular check the tank level. High pressure due to too high a level may cause leaks or more unpleasant troubles.

Electrical equipment

- General information
- Elements 12V DC
- 24 V DC system
- 110-220 V AC system
- Equipment

ELEMENTS 12V

Battery - 12 V



Location: Under the companionway
1. Engine battery 110A
2. Service batteries 110A

Battery charger



Location: Port passageway
Power: 2 x 25A

Battery switch - 12 V circuit



Location: Port passageway
1. Battery switch "service positive"
2. Battery switch "common negative"
3. Battery breaker - "positive terminal - engine"

General fuse - System Positive 12V



Location: Port passageway

Home cinema



Location: Port saloon

TV aerial amplifier



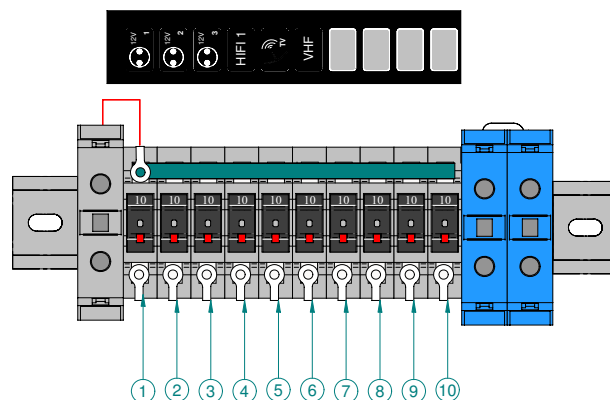
Location: Well

Plate 12V circuit breakers

Location: Back of electrical panel



1. Sockets 12V
2. Sockets 12V
3. Sockets 12V
4. Hifi
5. Inverter TV
6. VHF
7. Available
8. Available
9. Available
10. Available



Electrical equipment 9

■ GENERAL INFORMATION

ELECTRICAL PANEL

The electrical switchboard does not require any routine maintenance. In case an electric appliance is not energized, check:

- The main power supply (batteries, battery switches).
- The switches and circuit breakers on the line.
- the relevant electrical unit.

The fuel gauge can be read by pressing the switch.

■ ELECTRICAL CIRCUIT, 24 V

GENERAL RECOMMENDATIONS

- Never work on a live electric fitting.
- The batteries must be strongly fastened.
- Do not block the battery ventilation ducts, some of them may give off hydrogen which represents a danger of explosion.
- The batteries must be handled with care. In the case of contact with electrolyte thoroughly rinse off the affected part of the body and consult a doctor.
- To avoid short-circuiting between the battery poles do not store conducting objects near to the batteries (metal tools, etc...).
- Turn off the electrical circuit with the battery switches when installing batteries or during their connection/disconnection.
- Never modify the specifications of power overload protection devices.
- Never modify an installation. Use the services of a qualified marine electricity technician.
- Never install or replace the electric appliances (or any electric equipment) by components exceeding the capacity (amperage) of the circuit.
- Do not leave the vessel unattended when the electrical system is switched on .
- Certain lights represent a significant heat source, be careful of surrounding objects.

Note, the son of the 24 V circuit are white or brown for the blue and more for less.



DANGER

-There may be danger of fire or explosion if direct current systems are incorrectly used.



WARNING

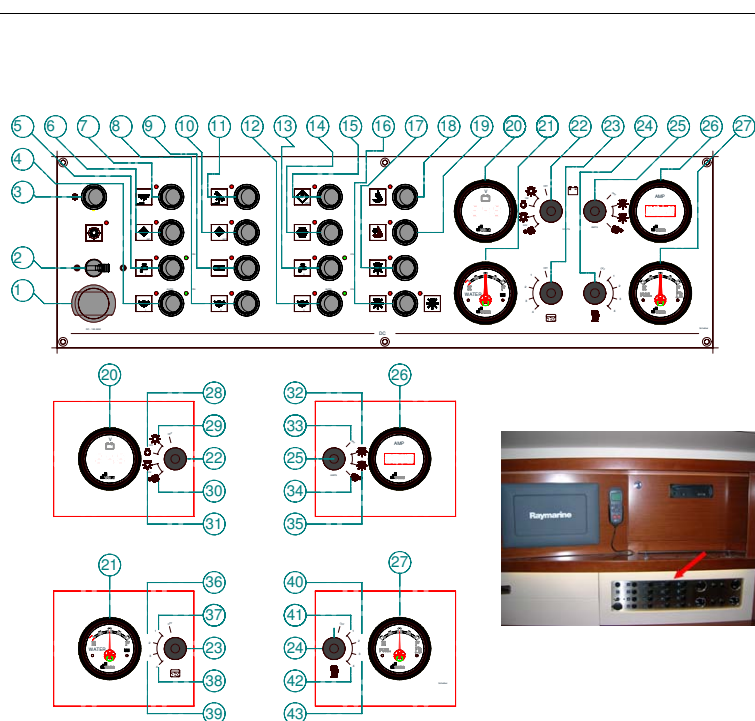
-Handle the batteries with care (Please refer to the manufacturer's instructions).
-In case of electrolyte splashing, thoroughly rinse the part of the body that has been in contact with it. Obtain medical advice.



ADVICE - RECOMMENDATION

-Keep the batteries clean and dry in order to avoid premature wear.
-Periodically check the electrolyte level. Add distilled water when needed.
-Tighten and maintain the terminal connectors by greasing them regularly.
-Disconnect the batteries during winter storage or long periods of inactivity.

24 V ELECTRICAL PANEL



1. 12 V socket
2. "Interior lighting" general circuit-breaker
3. Switch - Backlighting - Panel
4. Control - Forward bilge pump
5. Control - Water unit
6. Control - Fridge - Galley
7. Control - Saloon lighting 1
8. Control - Bilge pump - Saloon - Auxiliary
9. Control - Freezer - Galley
10. Control - Fridge - Chart table
11. Control - Saloon lighting 2
12. Control - Bilge pump - Principal - Saloon
13. Control - Pump for deck washing
14. Control - Navigation electronics
15. Control - Solenoid - Gas
16. Control - Navigation lights & Mooring light
17. Forcing - Steaming light
18. Control - Projector boom bar
19. Control - Deck searchlight
20. Indicator - Voltage
21. Indicator - Water level
22. Master switch - Measurement - Voltage
23. Master switch - Measurement - Water level
24. Master switch - Measurement - Level Fuel
25. Master switch - Measurement - common
26. Display - Measurement - common
27. Display - Measurement - Level Fuel
28. Position - Measurement - Voltage - Engine battery (12 V)
29. Position - Measurement - Voltage - House battery (12 V)
30. Position - Measurement - Voltage - Propeller battery (24 V)
31. Position - Measurement - Voltage - House battery (24 V)
32. Position - Measurement - common - Load - House battery (24 V)
33. Position - Off - Measurement - common
34. Position - Measurement - common - Load - Propeller battery (24 V)
35. Position - Measurement - common - Consumption - House (24 V)
36. Position - Measurement - Water level - Tank - Starboard saloon
37. Position - Measurement - Water level - Tank - Port saloon
38. Position - Measurement - Water level - Tank - optional
39. Position - Measurement - Water level - Tank - Forward cabin
40. Position - Measurement - Level Fuel - Tank - Starboard aft
41. Position - Measurement - Level Fuel - Tank - Port aft
42. Position - Measurement - Level Fuel - Tank - Starboard forward
43. Position - Measurement - Level Fuel - Tank - Port forward



Electrical equipment 9

Elements 24V

24V electric, for dinghy



Location: Starboard cockpit locker

Breaker 24V



Location: Port aft cabin



WARNING

-Refer to the instructions for use.

Refrigeration unit



Location: Port saloon

Refrigeration unit additional



Location: Headquarters chartwork



WARNING

-Be sure to defrost the fridge and icebox regularly to maintain correct functioning. During long absence leave the fridge and icebox doors open to avoid mould developing.

Synoptic - Switches Tilling positon - Starboard



1. Mooring light
2. Navigation lights
3. Cockpit lighting
4. Projector boom bar
5. Deck searchlight
6. Optional equipment (Electric genoa furling system)

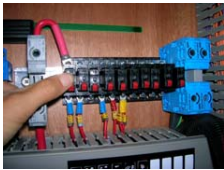
INVERTER 24/220V			
Location - Starboard aft cabin	Breaker 100A Port aft cabin	Earthing plate	
			

BOW THRUSTER 24V Location		OPERATION
Elements - Forward cabin 1. Battery set (4 x 50A) (System 24V) 2. Engine 24V 3. Fuse 250A 4. Electric battery switch - Positive	 WARNING Refer to the manufacturer's instructions for use and maintenance.	Control - Starboard wheelhouse
 		 The circuit of the propeller is connected with the circuit constraints. Less is connected to the negative common.

Electrical equipment 9

PLATE 24V CIRCUIT BREAKERS

Location - Back of electrical panel

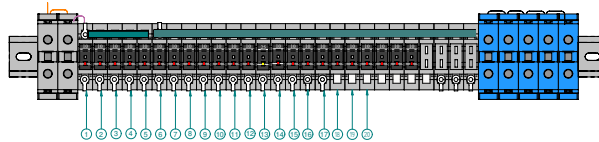


Circuit breakers are resettable. Press the tab manually on black back on the road circuit (see photo).

Breaker disarmed



Armed breaker



1. Interior lighting - Saloon
2. Interior lighting - Galley - Saloon
3. Interior lighting - Cockpit
4. Interior lighting - Forward cabin - Fore washroom
5. Interior lighting - Aft cabin - Aft washroom
6. Navigation lights
7. Mooring light
8. Deck searchlight
9. Projector boom bar
10. Electric curtains
11. Windlass
12. Bow thruster
13. Navigation instrument
14. Pump - Aft shower - Icebox drainage
15. Pump - Forward shower
16. upward / Companionway - TV
17. Gauge - Sewage tank
18. Extractor hood
19. Seawater pump
20. Diesel transfer pump

Fuse: Positive mains circuit 24V - 100A -
Location: Port passageway



Electric winch



1. Electric winch 24V
2. Electrical contactors

Circuit breakers 24V



- Location: Port aft cabin
 Genoa sheet winches: Breaker 100A
 Coach roof winches: Breaker 60A

Television



- Location: Saloon
 1. Mechanism (upward and downward motion)
 2. Television 24V

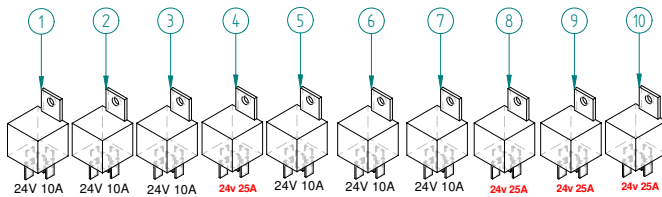
Inverter 24/220V



- Location: Back of electrical panel

Relay box

Location: Back of electrical panel



1. Deckhead - Gangway - Saloon
2. Deckhead - Saloon
3. Navigation lights
4. Steaming light
5. Mooring light
6. Deck searchlight
7. Projector boom bar
8. Function enabling - Windlass
9. Function enabling - Bow thruster
10. Electronic

Electrical equipment 9

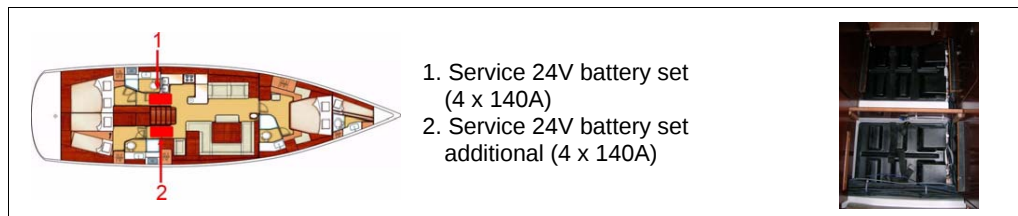
BATTERIES

Battery charging is achieved through the alternator coupled to the engine or through use of the 220 V shore charger.

Keep the batteries charged enough (essential to ensure them a correct service life).

Make the most of time alongside to use the 220 V shore charger so as to start out sailing with fully charged batteries.

Always check the condition of the batteries and charge system before putting to sea.



1. Service 24V battery set (4 x 140A)
2. Service 24V battery set additional (4 x 140A)

BATTERY SWITCH

The electricity onboard is 24 V DC.

The electrical system consists of service batteries.

The batteries supply power to all the functions on board.

The engine has its own battery.

Switch on the electricity by turning the positive and negative battery switches (24 V).

BATTERY CHARGER

Operation

The battery charger operates based on a signal processor that converts alternating current (220V or 110V) into a direct current (12V). The operation of the charger is fully automatic, after selecting the type of battery and load type (Refer to the instructions for use).



WARNING

- Never work on a live electric fitting.
- Do not touch battery terminals, risk of electric shock.



PRECAUTION

- Switch off the electrical system with the battery switches when the boat is unattended.
- Never leave the vessel unattended with the mains electricity switched on.
- Turn off the electrical system with the battery switches and circuit breakers before gaining access to the rear of the electrical panels.
- Check the level of maintainable lead batteries.



ADVICE - RECOMMENDATION

- It is recommended that you switch off all electrical devices before turning off the battery switches.
- Turn off all battery breakers before leaving the vessel (risk of total battery park).

BATTERY ISOLATION SWITCH SET



Access - Port passageway

- 1. Battery breaker - "positive terminal - engine"
- 2. Battery switch "common negative"

Battery chargers 24V



Location: Passageway
Power: 2 x 60A

Voltmeter



Location: Electrical panel

Ammeter



Location: Electrical panel

Electrical equipment 9

SHORE POWER SOCKET

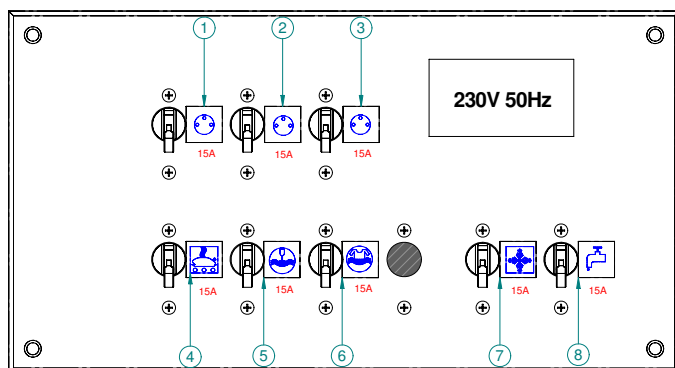


Shore power socket 30A & 63A
(Ref 1)

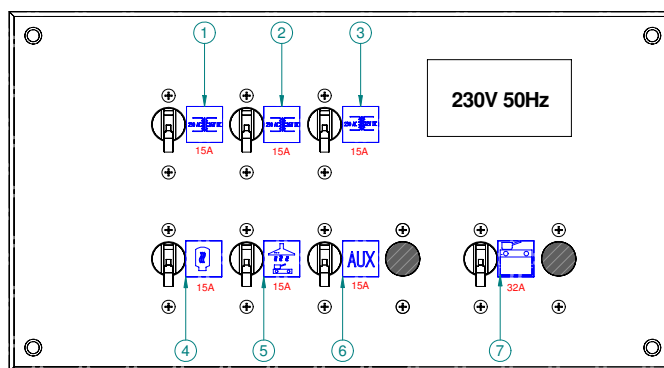


Differential circuit breaker
(Ref 2)

Circuit breakers 220V
Location: Port passageway



1. 220V socket - Chart table + Port forward cabin
2. 220V socket - Galley + Starboard forward cabin
3. 220V socket - Starboard aft cabin
4. Microwave
5. Dishwasher
6. Washer
7. Ice maker
8. Water maker



1. Inverter 220/24V
2. Inverter 220/24V
3. Inverter 220/24V
4. Water heater
5. Extractor hood
6. Available
7. Hot plate

Electrical equipment 9

ELECTRICAL CIRCUIT, 110-220 V

GENERAL RECOMMENDATIONS

Certain vessels are equipped (as either standard or optional features depending on the model) with a 110 V or 230 V circuit.

The following measures are recommended in order to avoid the danger of electrical shock and fire:

- Never work on a live electric fitting.
- Plug in the boat/shore supply cable in the boat before you plug it into the shore supply socket.
- Never let the end of the boat/shore supply cable hang in the water.
- Turn off the shore supply with the onboard cut-off switch before connecting or disconnecting the vessel/shore supply line.
- Disconnect the ship/shore power cable at the shore socket first.
- Check the polarity indicator for the shore connections (110V AC version).
- If the reverse polarity indicator is activated immediately disconnect the cable. Rectify the polarity fault before using the vessel's electrical installation.
- Close the shore supply input cover firmly after use.
- Do not modify the vessel/shore supply line connections; only use compatible connections.
- Do not alter the vessel's electrical system. The installation, modifications and maintenance must be carried out by a qualified marine electricity technician. Check the system at least twice a year.
- Disconnect the vessel supply when the system is not being used. This is to prevent the danger of fire.
- Use double insulated or earthed appliances.

Note that the live wires are brown, the neutral ones are blue and the earth wires are green and yellow.



DANGER

- Never let the end of the boat/shore supply cable hang in the water. The result may be an electric field liable to hurt or kill the swimmers nearby.
- There may be danger of electrocution if alternating current systems are incorrectly used.



PRECAUTION

- Never modify an electric fitting and relevant diagrams yourself.
- Call in a technician skilled in marine electricity to carry out any electric modification.
- Never change the breaking capacity (amperage) of the overcurrent safety devices.
- Never install or replace the electric appliances (or any electric equipment) by components exceeding the capacity (amperage) of the circuit (Watt for bulbs).



ADVICE - RECOMMENDATION

- In order to reduce the risks of electric shock and fire:
- Before you plug in or unplug the boat/shore supply cable, switch off the shut off device connected to the shore supply.
- Plug in the boat/shore supply cable in the boat before you plug it into the shore supply socket.
- Unplug the boat/shore supply cable on shore first. Close the shore socket cover.
- Do not modify the connections of the boat/shore supply cable

ELEMENTS 220V

Water heater - Seating - Starboard saloon

1. Water heater 60 l
2. Thermostatic mixer valve



Microwave + 220V socket



Extractor hood



Ice maker

Location: Port saloon



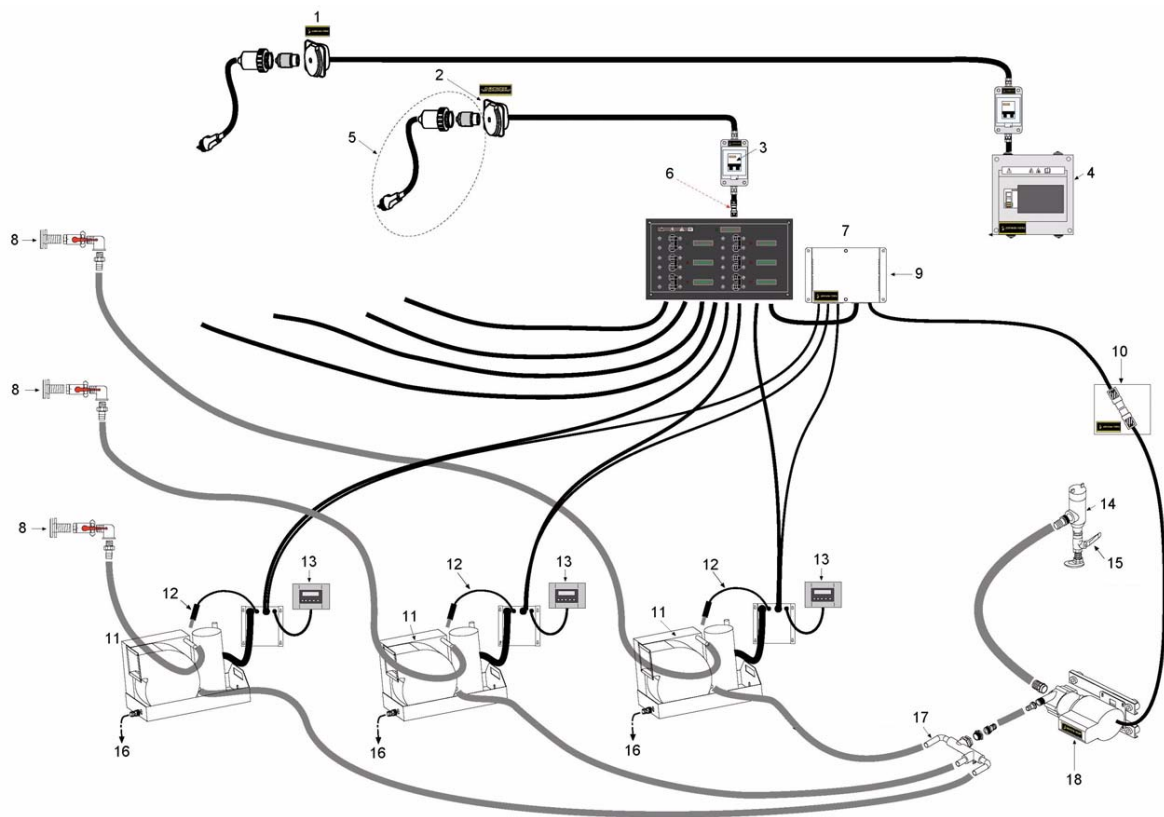
Supply valve - House water

Location: Seating - Port saloon



Electrical equipment 9

AIR CONDITIONING
SCHEMATIC DIAGRAM



REF	Designation
1	Shore power socket - standard
2	30A shore power
3	32A breaker
4	Differential circuit breaker (standard)
5	Platform socket extension cord
6	Master switch 60A (if Optional equipment Generator)
7	Breaker
8	Thru-hull seacock
9	Relay box
10	Junction box
11	Compressor
12	Lead lines
13	Control box
14	Sea water filter
15	Seawater inlet
16	Evacuation to the drip pan
17	Collector
18	Water pump

Electrical equipment 9

AIR CONDITIONING

Compressors - Location



Relay box
Location: Starboard saloon



Seawater pump - 24V
Saloon



Seawater inlet +
Filter



Layout of components
Stuffing box -
Seawater inlet



Drainage - Sea water - Compressors



Maintenance of filters (to engage in regular):

- Close valves taken seawater.
- Unscrew the top of the filter.
- Clean the strainer.
- Put everything back in place.

Operation

**Shore power socket -
Aft quarterdeck**



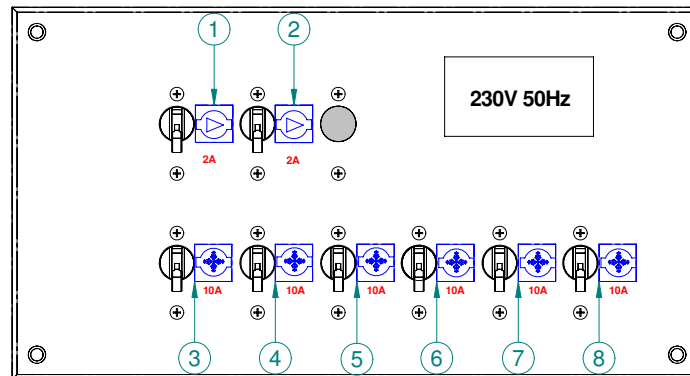
**Breaker 220V
Location: Port passageway**



**Master switch shore power or
generator
Location: Port passageway**



1. Pump - Air conditioning
2. Pump - Air conditioning
3. Compressor - Port saloon
4. Compressor - Starboard saloon
5. Compressor - Port forward cabin
6. Compressor - Aft cabin
7. Compressor - Forward cabin
8. Compressor - Starboard forward cabin



WARNING

-Refer to the manufacturer's instructions for use and maintenance.

Electrical equipment 9

AIR CONDITIONING

GENERAL POINTS:

The air-conditioning cools the air temperature inside the boat (only when the boat is floating in water).

The cooling circuit consists of one or more compressors that operate independently. A compressor is called "reversible" because it can heat the boat if the sea water temperature exceeds 10°C.

In winter, you can programme the dehumidifier function on the airconditioning controls.

The refrigeration compressors are made by one or two seawater pumps. These pumps are powered by 220V or 110V and are guided by one or two relay boxes.

Sea water is evacuated through a through-hull fitting equipped with a valve, located above the waterline.

Each compressor has its own through-hull evacuation fitting. It is advisable to check the flow of water visually once the air conditioning starts running.

OPERATION:

Before starting the engine::

- Open the raw water intake valves and evacuation valves.
- Use the switch on the chart table to select the power source (shore power or generator).

If using shore power: plug into the shore power socket ;

If using the generator: before turning on the air conditioning, leave the generator running for about 3 minutes.

The air conditioning is running:

- Switch the circuit breakers 220V ,from the air conditioning,ON.
- Select the temperature of each compressor using the control units.

WINTER STORAGE:

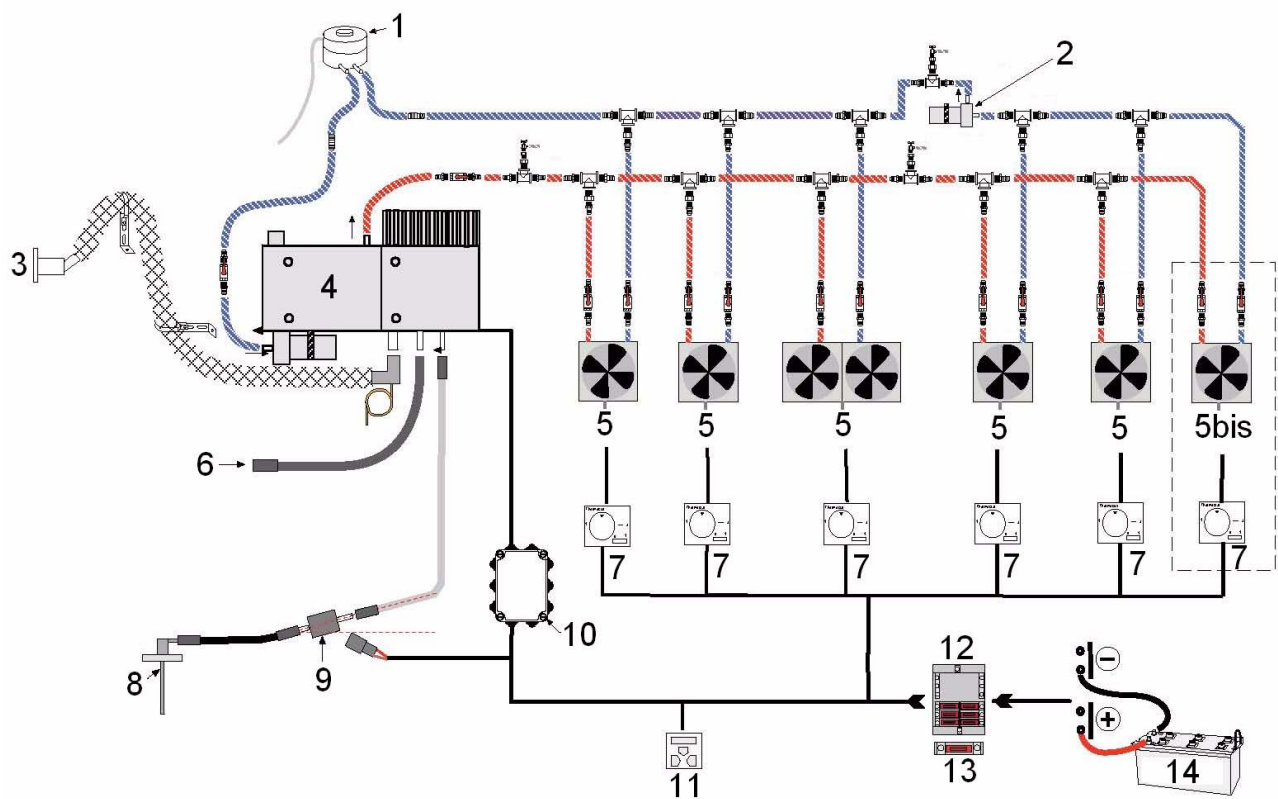
Protection of sea water system: drain the whole sea water system.



WARNING

- Refer to the apparatus instructions for use and maintenance.
- Never start the generator when the climate function is already on.
- Always turn off the air conditioning before turning off the generator.
- Regularly check and clean the sea water filter placed on the sea water intake through-hull fitting.
- Clean the air filter (located in the compressor) regularly for maximum performance of the installation.

HEATING SCHEMATIC DIAGRAM



Electrical equipment 9

REF	Designation
1	Expansion tank
2	Water pump 24V
3	Outlet
4	Heater 24V 12kW
5	Unit heaters 24V 2kW
5bis	Unit heaters 24V 2kW (Skipper's cabin)
6	Intake - Air
7	Switch / Thermostat
8	Joining
9	Diesel pump
10	Electrical cabinet
11	Timer
12	Fuses (Unit heaters)
13	Fuse (Heater)
14	Service battery

Electrical equipment 9

Water system heating

OPERATION

Electricity: The heater circuit is powered by 12V thanks to the battery backup.

Diesel: Quilting on reservoir.

STARTING UP

- Verify that the circuit * 1V is turned on.
- Open the heater outlet.
- Turn the control box at ON.
- Adjust the temperature of the heater using the thermostat.



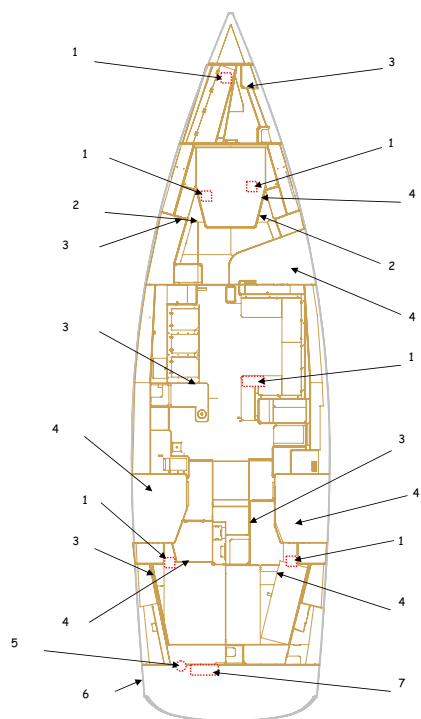
WARNING

Suddenly switching off the power supply risks damaging the boiler.

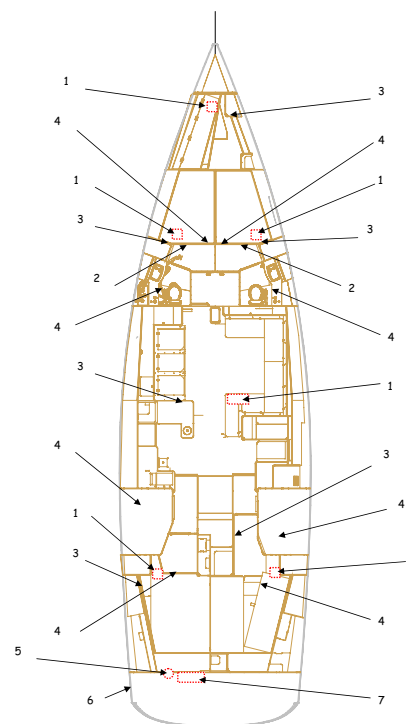
Refer to the apparatus instructions for use and maintenance.

HEATING **Layout of components**

Version 3 cabins



Version 4 cabins



REF	Designation
1	Unit heaters 24V
2	Intake - Air
3	Thermostat + Switch
4	Grid blow
5	Diesel pump
6	Outlet
7	Hot air 24V 12kW

Electrical equipment 9

GENERATOR 220V

Elements - Engine compartment

Sea water filter



1. Diesel oil decanter valve
2. Tank - Cooling liquid



Anti-siphon valve Location: Port passageway



Generator start up Port passageway



Operation:

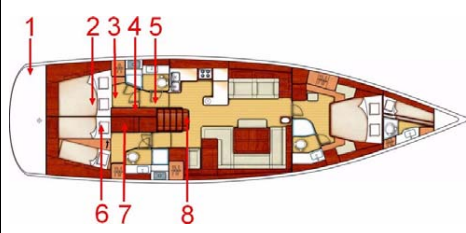
- Open the water supply and drain valves.
- Turn on the fuel valve.
- Generator start up.



WARNING

-Refer to the manufacturer's instructions for use and maintenance.

Layout of components



Drainage +
Water - Gas separator
(Ref 1)

220V breaker
(Ref 2)



Earth - Generator
(Ref 3)



Battery 110A (System
12V)
(Ref 5)



Seawater inlet
(Ref 8)



Fuel supply valve
(Ref 6)



Generator 220V
(Ref 7)



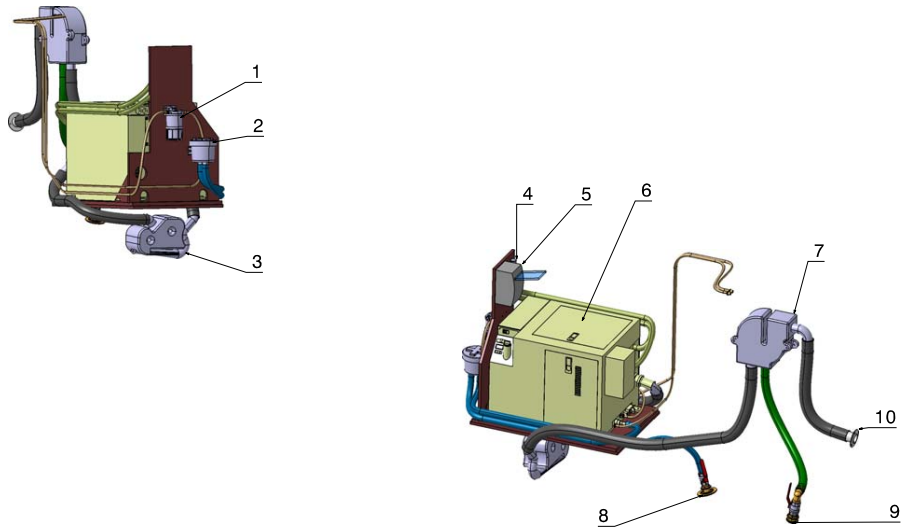
Battery switch
(Ref 4)



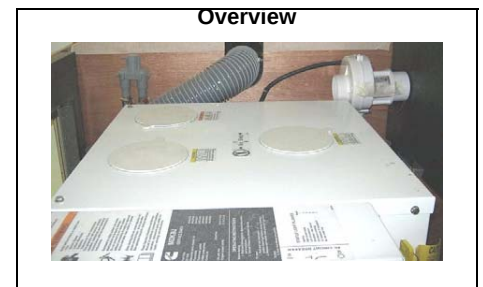
1. Battery switch "Generator positive"
2. Battery switch "Generator negative"

Electrical equipment 9

Generator Synoptic



REF	Designation
1	Fuel filter
2	Sea water filter
3	Water trap
4	Anti-siphon valve
5	Differential circuit breaker
6	Generator
7	Water - Gas separator
8	Seawater inlet
9	Drainage - Sea water
10	Outlet



Electrical equipment 9

GENERATOR - SCHEMA

GENERAL POINTS:

A generator is a device that can produce electricity (220V or 110V) from a mechanical energy (fuel). The generator will feed the onboard equipment operating at 220V or 110V, moored or sailing.

OPERATION:

- Open the raw water intake valves and evacuation valves.
- Turn the generator's battery switch to the ON position.
- Switch the generator breaker (reference 5) ON.
- Turn the generator on by remote control (located on the nautical chart table) or your at your own generator.
- Check that any device is not running 220V or 110V. Then set the shore power/ generator switch (located on the chart table).

OPERATION:

- Supply - Diesel:

The generator is fed by fuel through the fuel tank port. The fuel filter (reference 1) is located at the generator circuit.

- Refrigeration:

The generator is cooled::

by seawater (inlet valve reference 8 sea water and sea water filter reference 2) ;

and by air (air exhaust duct, that runs through a ventilator and through the fresh air inlet).

- Electricity:

The generator includes its own battery to start the engine. The generator is earthed by an earthing plate which is located under the hull.

- Rejection:

The cooling water and exhaust gases are separated in the separator (reference 7) to avoid noise pollution.

The seawater is discharged below the waterline (Ref 9). The exhaust- pipe is located above the waterline (Ref 10).

Electrical equipment 9

EQUIPMENT

GENERAL INTRODUCTION

(As far as possible) use electric appliances with double insulation or with three conductors (Neutral-Live wire-Ground).

ELECTRONIC

Wire runs are available to complete the boat equipment.

Do not install electronic instruments or repeaters less than 1,50 m away from the radio loudspeakers.

Advice: *For further information refer to the appliance instructions.*

MAINTENANCE

Clean the repeater dials with freshwater. Refer to the instructions before using any other produce. The use of alcohol must be avoided.



ADVICE - RECOMMENDATION

- Place the protective covers on the repeaters when unused for long periods.
- When sailing store the protective covers inside the boat to avoid losing them.
- The various repeater displays are back-lit.
- The onboard radio is fitted with two outside speakers.
- When mooring be careful to adjust the sound so as not to disturb your neighbours !

ELECTRONIC - TRANSDUCER LOCATION



View interior



View Outside



Electrical equipment

Electrical equipment 9

ELECTRONIC

LEAD LINES

The log and depth sounder sensors are located under the forward cabin floor. Keep the log sensor cowl close to the instrument so as to be able to intervene in complete safety.

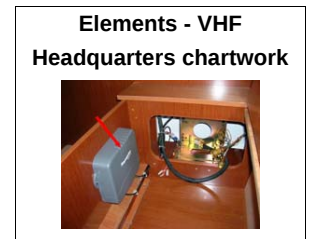
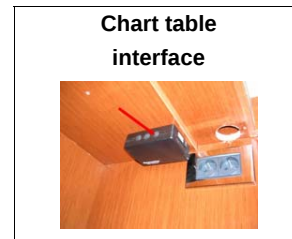
Do not store material on top of the sensors.

AUTO PILOT

The pilot consists of several elements listed as follows:

- Repeater in the cockpit starboard side above the engine panel.
- Calculator, cylinder, hydraulic pump, rudder on either side of the bar area in the trunk.
- To supply power to all elements switch on the "Navigation" circuit breaker on the electrical panel.
- For use and maintenance of the material consult the manufacturer instructions.

PILOT ELEMENTS



MAINTENANCE

Clean the transducer probe during each dry dock and the log sensor regularly. Read the instructions for maintenance recommendations.

Refer to chapter 11 "Launching" for the precautions to be taken concerning the sensors during hoisting.



ADVICE - RECOMMENDATION

- For best results, remove any metal compass.
- Do not store material close to the calculator and electrical connections.

Engine

- General information
- Engine fitting

Diesel tank Location: Under each aft berth Capacity: 2 x 240 litre 	Additional tanks + Supply valve Location: Saloon - Port and starboard Capacity: 2 x 300 litre 	Diesel transfer pump 24V Location: Saloon  Operation: - The spare port tank (located in the saloon) empties into the port aft tank using the port transfer pump (Identical operation for the starboard system).
Deck fillers 	Gauge Location: Electrical panel Refer to the instructions for use 	Gauge Location: Port passageway Refer to the instructions for use This gauge works only during the operation of transfer of the diesel oil from front tanks towards back tanks 
Fuel supply valve - Detail Tank - Port aft 1. Supply valve - Generator 2. Engine supply valve  Tank - Starboard aft 3. Available 4. Engine supply valve 5. Supply valve - Heating (optional) 	Fuel management lever Location: Port passageway Lever pushed: Supply - Aft tank - Port side  Lever pulled: Supply - Aft tank - Starboard 	

Engine 10

■ GENERAL INFORMATION

TYPE OF MOTORISATION

Your vessel is fitted with an in-board diesel engine.

The transmission is of a shaftline type.

PRECAUTIONS OF USE, OPERATING ADVICE

General point

- In this vessel, do not install an engine with a greater power and weight than that recommended, this will create a danger for its stability.
- Fuel which is stored elsewhere than in the fuel-tanks (portable tanks, jerrycans, etc...) must be kept in a ventilated space.
- Make sure that the engine compartment is clean and dry.
- Avoid contact between inflammable substances and the hot parts of the engine.
- Locate the extinguisher hole which allows access to the engine compartment if a fire should break out. (Refer to chapter 2).

Filling

Fill the fuel tank using the filler. In order to protect the deck from possible fuel splash, wet the area around the filler with sea water before you remove the filler cap. In case of splashing rinse the deck thoroughly (deck filler closed).

The fuel level is transmitted from the gauge to the indicator (Port passageway).



⚠ DANGER

- Stop the engine and refrain from smoking during fuel tank filling.
- Make sure that the ventilation openings in the engine (and generator, if installed) compartment are well cleared.



⚡ PRECAUTION

- Never run the engine when the boat is hauled out.



⚡ PRECAUTION

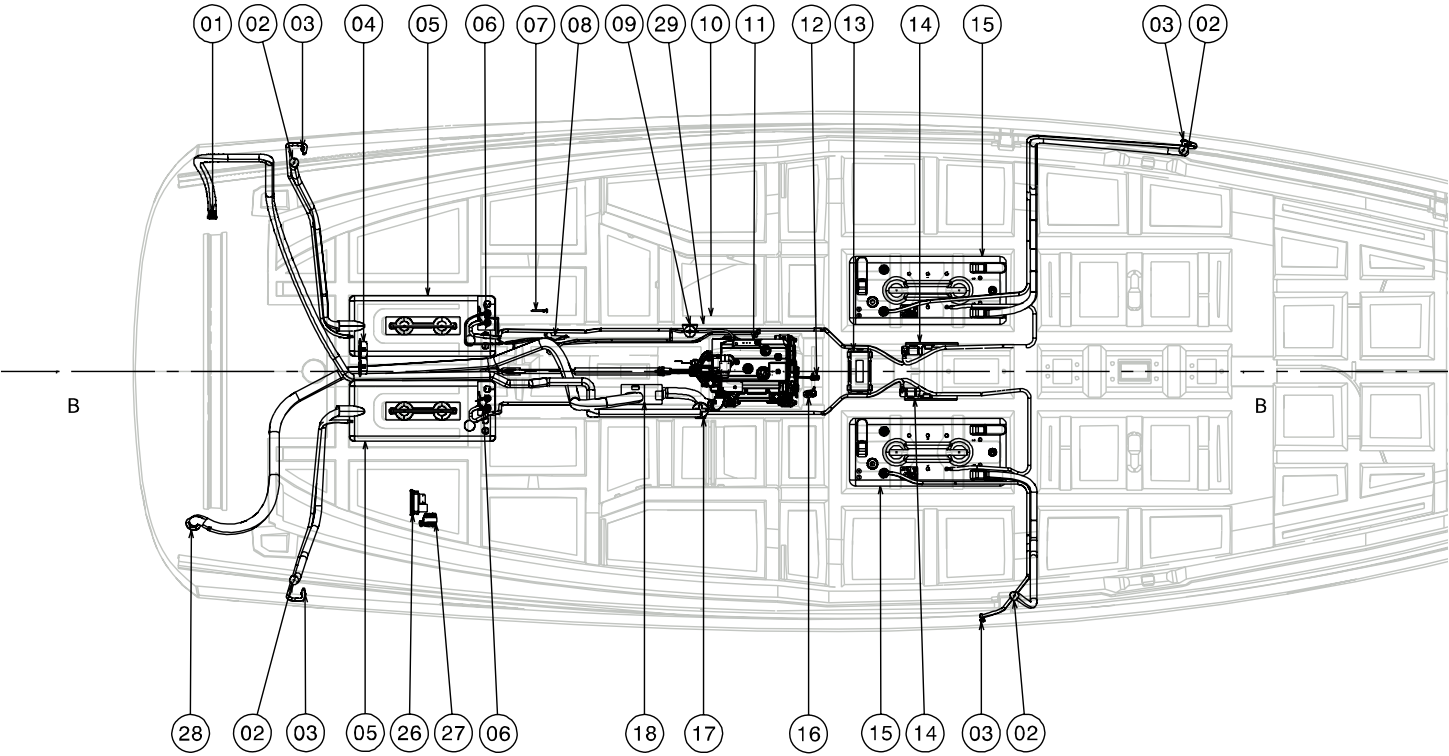
- Stop the engine before you open the companionway hatch and side hatches.
- In case of an intervention when the engine is running:
- Stay away from belts and hot or mobile parts.
- Be careful with full clothes, long hair, rings etc. (you may be caught).
- Wear appropriate clothes (gloves, caps etc.).



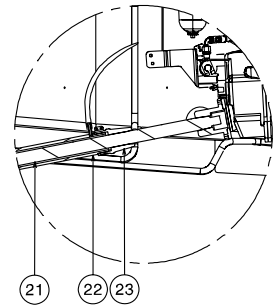
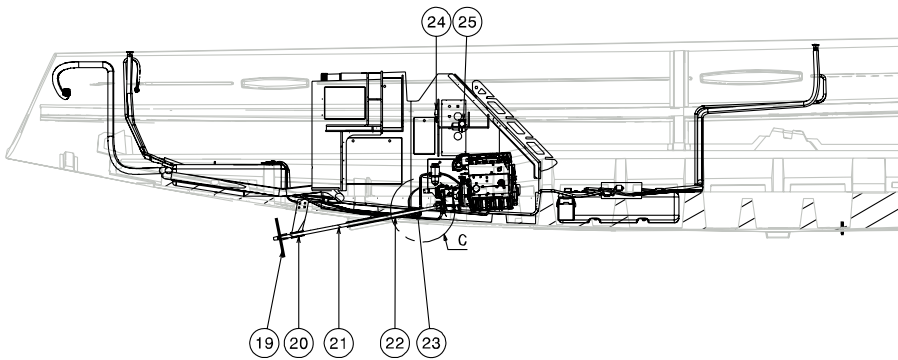
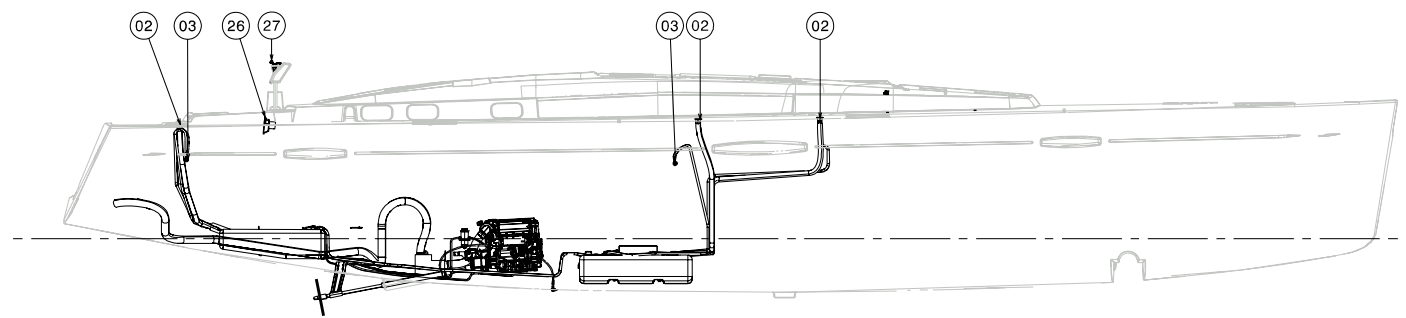
📖 ADVICE - RECOMMENDATION

- Carefully read the engine instructions given with your boat.

ENGINE FITTING



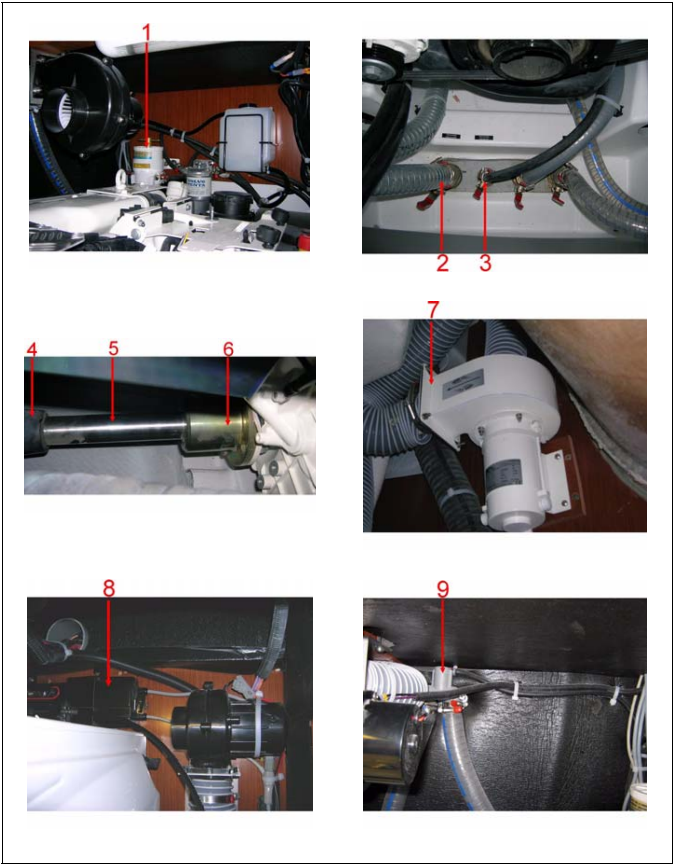
Engine 10



REF	Designation
1	Ventilation grid
2	Filler cap
3	Vent hole
4	Sleeve
5	Diesel tank 240l
6	Supply valve - Diesel
7	Remote control - Supply valve - Diesel
8	Pull switch - Selection - Diesel tank
9	Diesel filter
10	Battery switch
11	Engine + Gear ratio 2/1
12	Engine water intake valve
13	Engine battery 110A
14	Diesel transfer pump
15	Diesel tank 300l
16	Stern frame water intake
17	Sea water filter
18	Water trap
19	Propeller
20	Bearing
21	Shaft + Flange - 40 mm diameter
22	Stern frame
23	Stuffing box - 40 mm diameter
24	Anti-siphon valve
25	Engine compartment ventilator 12V
26	Engine instrument panel
27	Engine control lever
28	Outlet
29	Panel - Diesel transfer

Engine 10

Main components of the engine



REF	Designation
1	Diesel oil decanter valve
2	Sea water inlet valve for engine
3	Seawater inlet - Stern frame
4	Stuffing box
5	Propeller shaft
6	Connecting plate
7	Ventilator - Engine compartment (Location: Port cockpit locker)
8	Gearbox activator
9	Anti-siphon valve

Engine 10

Engine

These instructions give detailed explanations on proper operation of the engine.

- Refill before the fuel tanks have almost run dry (the fuel system may be stopped for lack of fuel).
- Make sure you have enough fuel before sailing.

Access to the engine

You have access to the engine via the companionway hatch.

You can check the main parts thanks to side hatches.

Engine water intake valve

The water inlet valve of the engine is essential in the engine operation.

- Keep the strainer under the hull as clean as possible.
- Brush the strainer whenever the boat is lifted out.
- Do not cover the strainer with antifouling paint.

It is essential that this valve is open before the engine is started (danger of rapid wear and substantial damage to engine installation).

If water does not flow out:

- Stop the engine immediately.
- Check that the valve is open.

Close the water inlet valve if the boat is unattended for long.

Inspect and clean the water filter regularly.

Engine operation

Before starting the engine:

- Turn on the fuel valve.
- Open the valve of the engine cooling system and the valve of the stuffing box (see stuffing box paragraph).
- Operate the battery switches and energise the electric system.
- Disengage the reverse gear (it will make the acceleration possible when in neutral).



DANGER

- Always start the engine with the control lever in neutral.



WARNING

- Never switch off or de-energise the electric system when the engine is running.
- Imperatively operate the stop pull handle (or button) before using the ignition key to switch off a diesel engine.



WARNING

- The tanks' nominal capacity cannot be fully used due to the load and the need to maintain the correct trim. A 20% reserve should be kept.



ADVICE - RECOMMENDATION

- Get used to checking immediately after starting the engine if water is expelled with the exhaust gases

SUPPLY VALVE FUEL



**Supply valve
Port tank**



**Supply valve
Starboard tank**



Fuel management lever - Port passageway

Lever pulled -
Supply
Starboard tank



Lever pushed -
Supply
Port tank



SEA WATER INLET VALVE FOR ENGINE



1. Sea water inlet valve for engine
2. Seawater inlet - Stern frame



Stuffing box



Engine 10

Fuel filter

Engine running problems may have different origins, including dirty fuel. The injection pump may wear out if there is water in the system.

The water results either from the condensation resulting from an insufficiently filled tank, or from a filler cap either not closed properly or with a damaged seal.

In order to prevent any water infiltration, the fuel runs through two filters:

- One filter is an integral part of the engine, its role is to filter fuel very finely. To know when you have to intervene and how frequently you have to change it, please refer to the engine's manual.
- The second filter is on the pipe that links the tank to the engine, it plays the role of a water decanter and prefilter.

Drain by undoing the knurled screw at the base of the decantation bowl (but not removing it).

Allow to flow into a box till the fuel looks clean.

Do this several times a year.

Change the pre-filter at least once a year (access to it when you remove the bowl).

As for the procedures in case of fire, refer to Chapter 2.

Anode

- Check the whole propeller shaft several times a year.
- Regularly check the anode (on the driving shaft) for corrosion.
- Change the anode if necessary.
- Check and change the cutlass bearing if necessary.



DANGER

- Never obstruct access to the fuel valve.



PRECAUTION

- Regularly check the anode for corrosion, at least 2 times a year.



ADVICE - RECOMMENDATION

- Change the anode if necessary (Before it lost 50% of its weight).
- Use anodes corresponding to the zone of navigation of the boat (fresh water / sea water).



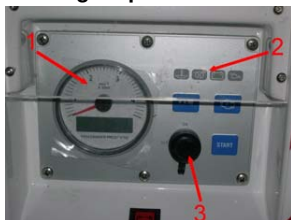
WARNING

- Change systematically anodes at the end of the first 3 or 4 months of launch of the new boat: their wear is accelerated during this period..

Engine control



Engine panel detail

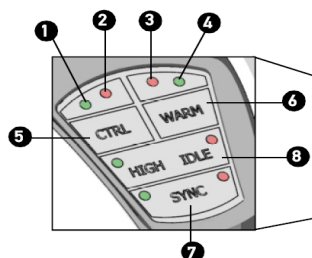


REF	Designation
1	Tachometer Revolution counter
2	Control indicator lights
3	Starting key

Propeller + Anode (located at the shaft line end)



Operation - Lever



REF	Description	Function / Operation
3 and 4	For twin engine boats (not applicable)	
5	CTRL	Control start/stop The lever must be in neutral position to power the control. To activate the control, rapidly press twice the CTRL button; the light 1 will turn on. To disable the control, rapidly press twice the CTRL button; the light 1 will flash.
6	WARM	Earthing to neutral Press the button with lever in neutral position: light 2 will turn on. To disable, press once with lever in neutral position.
7	SYNC	Engine rating limitation Press the button during 2 seconds with lever in neutral position. The red light on the right will turn on
8	HIGH IDLE	Idle rating limitation Press briefly: the green light on the left will turn on.

Engine 10

The instrument panel has all the testing functions of the engine and it does not require any special precaution (refer to engine leaflet).

Check the clutch and accelerator cables (lubricate the end fittings and forks).

VISIBILITY FROM THE STEERING STATION

The international regulations to prevent collision at sea (COLREG) and the course regulations make mandatory a permanent and proper surveillance and the respect of priority.

Make sure there is no other boat on your way.

The visibility from the steering station may be obstructed in the following conditions:

- Speed.
- Position of the upper and side awnings.
- Boat heeling over, the sails reduce visibility under wind.
- Load and load distribution.
- Sea conditions, rain, spray, fog or darkness.
- Lights on inside the boat.
- Persons and removable equipment in the helmsman's field of visibility.



PRECAUTION

- Do not change the propeller without specialist's advice.
- Regularly check the anode (at the end of the drive shaft) for corrosion, at least 2 times a year.



ADVICE - RECOMMENDATION

- When the engine is running, avoid making noise and chops near the other users.
- Respect speed limits.
- If this boat is equipped with a fixed blade propeller, when sailing at speeds over 8 knots it is essential to leave the reverse gear control in neutral.
- To start the engine again, reduce the speed of the boat when sailing (in order to be able to disengage the clutch before starting it again).



ADVICE - RECOMMENDATION

- Check the whole propeller shaft several times a year.
- Change the anode if necessary.
- Check and change the cutlass bearing if necessary.

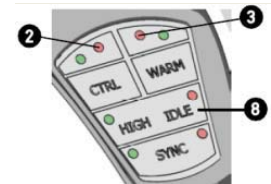


WARNING

- Change systematically anodes at the end of the first 3 or 4 months of launch of the new boat: their wear is accelerated during this period.
- See Chapter BRIDGE.

Warnings

In case of malfunction, the system warns the user when a fault is detected by means of a sound code and by the flashing of light 2.



N°	Designation	Description	Audible alarm
1	Control lever position sensor error.	Control activation failure. The system is set in a safety condition (throttles at minimum and shifts in neutral).	Long, Long, Long.
2	Activator communication error.	In case of communication errors, the system is set in safety condition (throttles at minimum and shifts in neutral). When the lever is reset to idle, the system tries to restore normal functions. If the error is not cleared, the system stops.	Short, Short, Long.
3	Shift engagement error.	The system is set in safety condition (throttles at minimum and shifts in neutral). When the lever is reset to idle, the system tries to restore normal functions. If the error is not cleared, the system stops.	Short, Long, Short.
4	Throttle activator error.	In case of mechanical activator blockage (if applicable), the system waits for two seconds and then it will attempt to enter safety condition (throttles at minimum and shifts in neutral).	Short, Long, Long.
5	Not Applicable.		Long, Short, Short.
6	Acceleration warning.	Warnings indicate external conditions that might reduce system performance, such as low supply voltage or control cables caught between actuators and engines.	Long, Short, Long.
7	Shift engagement warning.	Warnings indicate external conditions that might reduce system performance, such as low supply voltage or control cables caught between actuators and engines.	Long, Long, Short.

Engine 10

NAVIGATION: REMINDER OF SOME ADVICE

Stability

During sailing keep all the portholes, windows and doors closed.

- The stability is reduced when you add weight in the upper parts.
- Stability may be reduced when towing a boat or when heavy weights are lifted with the davits.
- Breaking waves represent a serious danger for stability and for taking in water. Close the companionway doors and hatches in heavy seas.

Prevention of man overboard

Regularly check the guard-rails:

- With metal guard-rails, watch for corrosion particularly at connecting points.
- With synthetic guard-rails, change them as soon as they show signs of wear due to chafing or UV.

Propeller

The propeller supplied as a standard with your boat is the result of tests carried out jointly with the engine manufacturer.



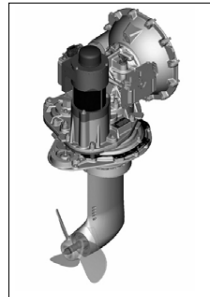
ADVICE - RECOMMENDATION

- Have the whole driving and steering systems checked and maintained by a professional.
- Refer to the manufacturers' instructions supplied with your boat.
- Regularly check the O ring of the filler for good condition (in order to prevent water entries).
- Do not turn off the fuel tap after each use (except in case the boat is unattended for long).
- Keep the fuel tank as full as possible (to avoid condensation).
- Every year check the fuel system for condition (hose, valves, etc.).
- Have a professional to carry out the works on the damaged parts of the fuel system.
- Refer to the manufacturer's manual given with your boat.
- Be careful with any possible risk of oil and fuel spillage.

■ DOCK & GO VERSION

General point

- The Dock & Go transmission is an electronically controlled mechanical transmission.
- This type of transmission operates without a reverse gear, reversing is achieved by rotating the POD 180 degrees.
- The Dock and Go system is powered by the service batteries circuit onboard: the battery bank must be sufficiently charged to enable the system to run well. An insufficiently charged battery bank (at the start of a new season, for example) risks damaging the onboard electrical system.
- The forward and reverse travel of the boat are controlled by the engine control lever. In passing from forward into reverse POD rotates 180°.
- The POD's orientation in all directions is carried out by the joystick.
- The joystick controls the propeller and the bow-thruster. By moving the joystick on the X and Y axes, the boat moves on these axes.
- Rotating the joystick makes the boat rotate around its centre.



ADVICE - RECOMMENDATION

-It is imperative to change the transmission oil after the 250 first hours of use (please consult your dealer).

Engine 10

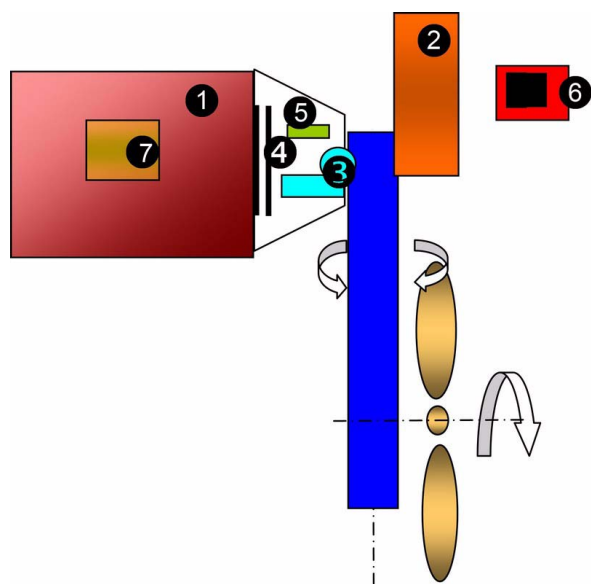
Start Quick Guide

Start the engine using the control lever (forward and reverse)		
1	Turn on all battery switches.	
2	Start the engine.	
3	(if necessary) Activate the bow thruster manually: Steady green light on the control panel.	
4	The lever is operational.	

Start the engine, using the joystick to move sideways (Dock & Go)		
1	Turn on all battery switches.	
2	Turn on power to the navigation electronics at the electrical panel.	
3	If necessary according to auto pilot model, put into STAND-BY mode at the exterior helm station.	
4	Start the engine.	
5	Activate the bow thruster manually: Steady green light on the control panel.	
6	Activate the joystick of the Dock & Go by pressing the joystick button (Hold the button down for a long time and the 2 indicator lights will changed to steady green).	
7	The joystick is operational.	

Deactivate the joystick to take control of the engine with the lever		
1	Hold the joystick button down for a long time (1 red indicator light).	
2	The engine control lever is operational.	

Diagrammatic view

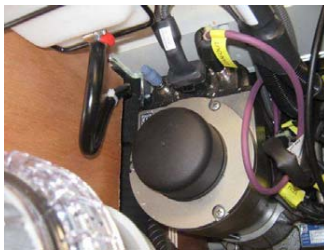


Reference	Designation
1	Heat engine
2	POD rotary motor: Make the POD under the waterline turn 270 to starboard
3	Clutch actuator: enables gear engagement and disengagement
4	Clutch: Mechanical linkage between the engine and the propeller shaft
5	TCU: (Transmission and Clutch Management) interface between the clutch activator and the VMU
6	VMU (Vessel Management Unit): the brains of the system, it gathers all the info from the system(joystick, control lever, TCU, POD..) and tells it what to do
7	Throttle actuator: electric accelerator interface between the electric control and the fuel pump

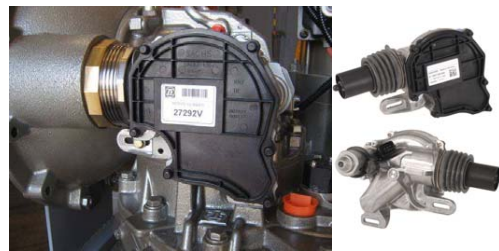
Engine 10

LAYOUT OF COMPONENTS

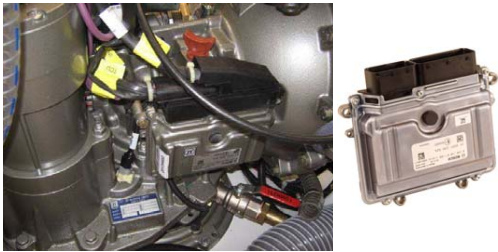
Rotating motor
(Ref 2)



Clutch actuator
(Ref 3)



TCU housing (Transmission and Clutch Management)
(Ref 5)



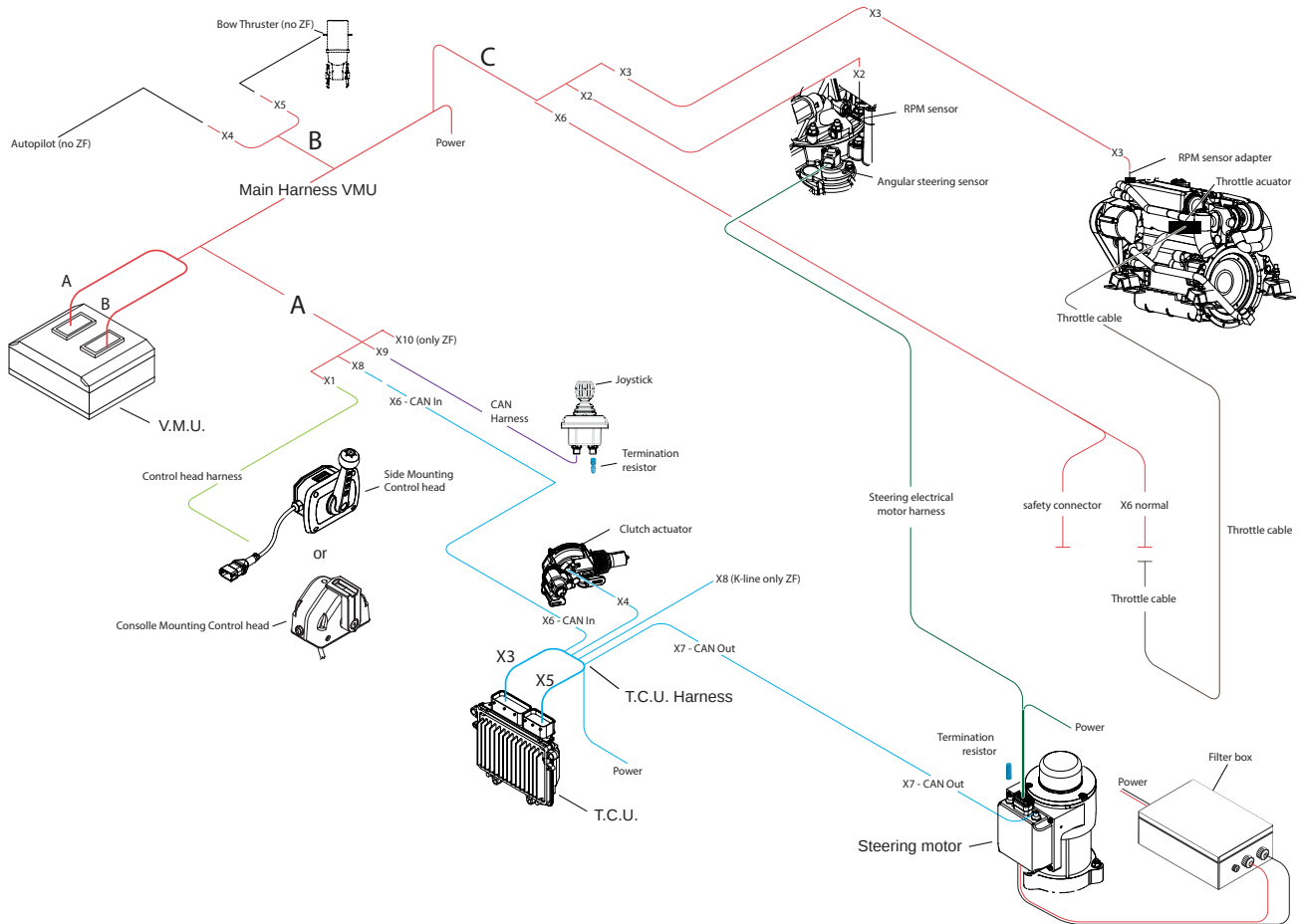
VMU housing (Vessel Management Unit)
(Ref 6)



Throttle actuator
(Ref 7)



LAYOUT



Engine 10

Operation

1. General points

- The "Dock and Go" system is a manoeuvring aid to facilitate coming alongside and leaving the dock. This system must not in any circumstances be used as a means of navigation, even during approach manoeuvres in port.
- In some use modes of the system, especially sideways movement, the bow thruster has to work very hard. This leads to a significant power draw on the bow thruster battery bank and raises the temperature of the bow thruster motor.
- For its protection, the bow thruster is equipped with a temperature alarm which gives 5 short beeps 10 seconds before cutting off the power to the bow thruster. When the bow thruster cuts out, keep your hand on the joystick with the bow thruster out of operation. You need to wait until it has cooled sufficiently before restarting it manually by pressing both buttons on the bow thruster control simultaneously.
- To avoid this inconvenience and to protect the bow thruster we advise you not to use the bow thruster for more than 30 seconds at a time and to allow it to cool between each use.
- NOTE: Once the bow thruster has cut out due to overheating you should allow around 4 hours for it to return to ambient temperature. If it does overheat you can start using it again without waiting 4 hours but the possible usage time will be reduced.
- After each manoeuvre using the bow thruster, be sure to maintain the charge of the bow thruster battery bank: either by connecting your boat to the mains socket on the dock, or by keeping the engine at a cruising speed of at least 1700 rpm (engaged or disengaged) for at least 30 minutes after the last manoeuvre.

2. Propeller



WARNING

- The propeller supplied with the boat is the only propeller validated by the engine manufacturer to enable optimal operation of the assembly Dock and Go. No other propeller must be mounted under penalty of serious malfunctions of the base and the motor itself.

3. Operation

- Turn on all battery switches. The bow thruster battery master switches will turn on automatically when the bow thruster control is picked up.
- Open the fuel supply valve(s) from the fuel tank(s).
- Open the engine water inlet valve.
- Switch on the navigation electronics (Electrical panel).
- According to the auto pilot model and screen model, it may be necessary to touch the POWER button on the screen at the helm station to activate the auto pilot in MOTORISED HELM mode or POWER
- Check that the engine control lever is in neutral.
- Switch on the engine.
- Start the engine.
- Activate the bow thruster manually using the control push button. A steady light illuminates on the bow thruster control panel: The system is operating.
- Press the joystick button and hold down for 2 seconds before activating the joystick. When the button is released, the 2 LEDs on the joystick will change to steady green.

Engine 10

4. Joystick operation

REMINDER: Before using the system, ensure that the bow thruster light is illuminated (see above) once the boat's engine is started. Check that the bow thruster indicator light is showing steady green when the joystick is in operation.



The joystick is on STAND-BY: This means that it is ready for use.

The «Ready» LED is a steady red. The engine is controlled by the engine control lever.

Place a hand on the joystick and press the button for 1 second. The green LEDs illuminate when the button is released.



The 2 LEDs are illuminated as steady green lights (not flashing).

The joystick is operational, the control lever is out of action.

The wheel turns to lock the helm and rudder along the longitudinal axis of the boat.

Be careful to keep arms clear of wheel as it turns.

The pilot display shows =

«MOTORISED HELM» version RAYMARINE.

POWER version SIMRAD.

The indicator light on the bow thruster control panel is showing steady green.



Whenever an instruction is given to the joystick (here in forward) the LED «control» illuminates red.



DANGER

- If you activate the joystick while the rudder blade is not in the same position as the boat's axis, it will automatically move itself to the correct position.



WARNING

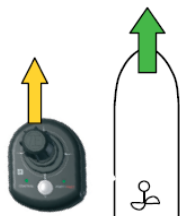
- The wheel will spin quickly and may catch your arm, clothes, hands as it does so: keep away from the wheel when the system is running.



ADVICE - RECOMMENDATION

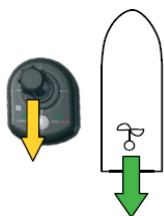
- The joystick button must be released to operate the joystick.

USING THE JOYSTICK



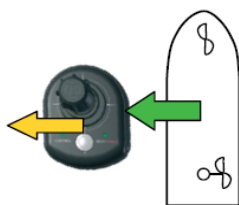
Push the joystick forwards.

The boat moves forwards. The acceleration is proportional to the position of the joystick.



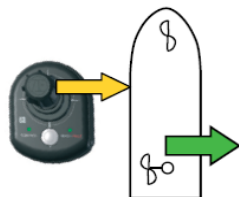
Push the joystick back.

The boat moves backwards. The acceleration is proportional to the position of the joystick.



Push the joystick to port.

The boat moves to port. Acceleration can be altered by turning the joystick (clockwise: boat accelerates, anti-clockwise: boat decelerates) and the bow thruster operates.



Push the joystick to starboard.

The boat moves to starboard. Acceleration can be altered by turning the joystick (clockwise: boat accelerates, anti-clockwise: boat decelerates) and the bow thruster operates.

Engine 10



Several movements can be combined:

Push the joystick to starboard + Turn the joystick clockwise.
The boat moves to starboard but the bow swings more quickly than the stern.

Push the joystick to starboard + Turn the joystick anti-clockwise.
The boat moves to starboard but the stern swings more quickly than the bow.

You can do the same to port:

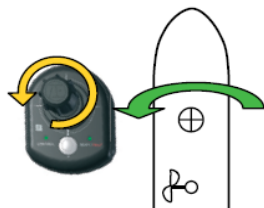
Push the joystick to port + Turn the joystick anti-clockwise.
The boat moves to port but the bow swings more quickly than the stern.

Push the joystick to port + Turn the joystick clockwise.
The boat moves to port but the stern swings more quickly than the bow.



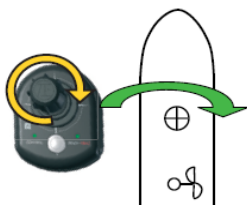
WARNING

-The effects of the Dock & Go system's rotation will be noticeable to a greater or lesser extent depending on the boat's way.



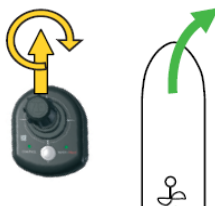
Turn the joystick anti-clockwise.

The boat turns to port (virtually pivoting around its keel). Forward or reverse acceleration is proportional to the position of the joystick.



Turn the joystick clockwise.

The boat turns to starboard (virtually pivoting around its keel). Forward or reverse acceleration is proportional to the position of the joystick.



Push the joystick forwards + turn clockwise.

The boat moves forward and turns to starboard.

The acceleration is proportional to the position of the joystick.

Do the same manoeuvre turning anti-clockwise.

The boat moves forwards and turns to port.

The acceleration is proportional to the position of the joystick.



Push the joystick back + turn clockwise

The boat moves backwards and turns to port.

The acceleration is proportional to the position of the joystick.

Do the same manoeuvre turning anti-clockwise.

The boat moves backwards and turns to starboard.

The acceleration is proportional to the position of the joystick.

Engine 10

QUIT JOYSTICK MODE



Press the button for 1 second.

RAYMARINE version: The auto pilot comes out of MOTORISED HELM mode and goes into STAND-BY mode.

SIMRAD version: The auto pilot comes out of POWER mode and goes into STAND-BY mode.



The joystick goes into STAND-BY.

The «Ready» LED is a steady red.

The system switches automatically to control lever function.

If the lever is not in the neutral position it must be put into neutral before using.

Explanatory note regarding the joystick in flashing red «Ready» LED mode:

When the red «Ready» LED is flashing, this indicates that a malfunction has been detected in the system. This malfunction may occur when the engine is started or the joystick is used.

In some cases, this fault may be resolved by completely restarting the system (Recommence starting procedure set out above).

If after restarting the joystick is still not working, use the engine control lever and bow thruster manually.

If control lever is not working, apply emergency procedure SAFETY set out in owner's manual ZF.



WARNING

- To retake control with the engine control lever, it is essential to disengage the joystick by pressing the button behind the joystick.

5. MODE WARM UP (warming up the engine)

- WARM UP mode is a mode in which the engine is disengaged and accelerated.
- To engage the 'warm up' position, press the button and keep it pressed whilst moving the throttle to the first forward notch, then release the button. Warm-up is only possible in forward gear.
- To come out of WARM UP mode, return the lever to neutral.

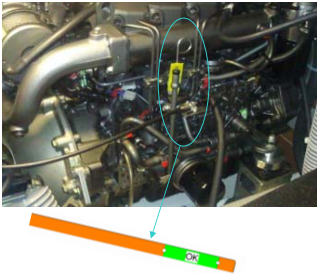
6. Procedure for shutting down the engine:

Put the control lever in neutral AFTER ENGAGING FORWARD GEAR FOR A FEW SECONDS, so the POD is properly located in the ahead position.

Wait 10 seconds before switching off the engine.

Engine 10

7. Maintenance



Check engine oil level.

The level must be between the 2 marks on the gauge (see engine manual).



Check POD base oil level.

The level must be taken by inserting the dipstick in the hole (without screwing it down).

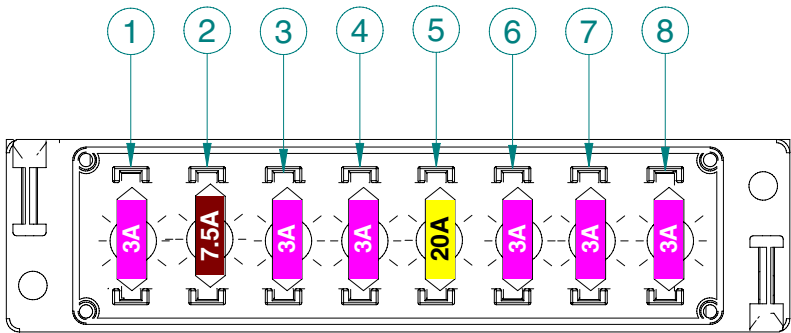
The level must be between the 2 marks on the gauge (see ZF manual).



- After every 250-hours of use, or once a year depending on the level of use, the boat must be lifted out to change the POD oil.
- During crantage: it is imperative to engage forward gear for several seconds to position the engine base of the boat correctly under the crane before stopping the boat's engine (see the chapter Handling).
- Every 7 years, replace the POD's packing.

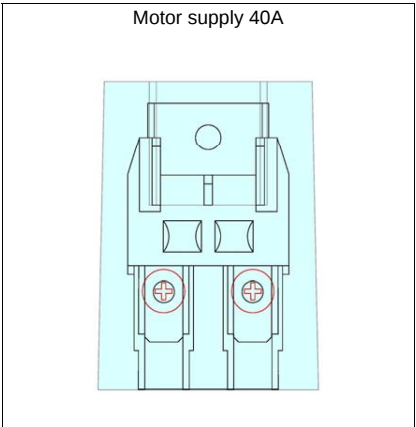
8. Protection components of the Dock & Go system

Lighted safety fuses



Reference	Designation
1	Supply VHS 1 after engine contact
2	Supply VHS 2 after engine contact
3	VMU power supply VMU
4	VMU power supply TCU 1
5	VMU power supply TCU 2
6	Supply VMU after engine contact
7	Supply TCU after engine contact
8	Supply pod after engine contact

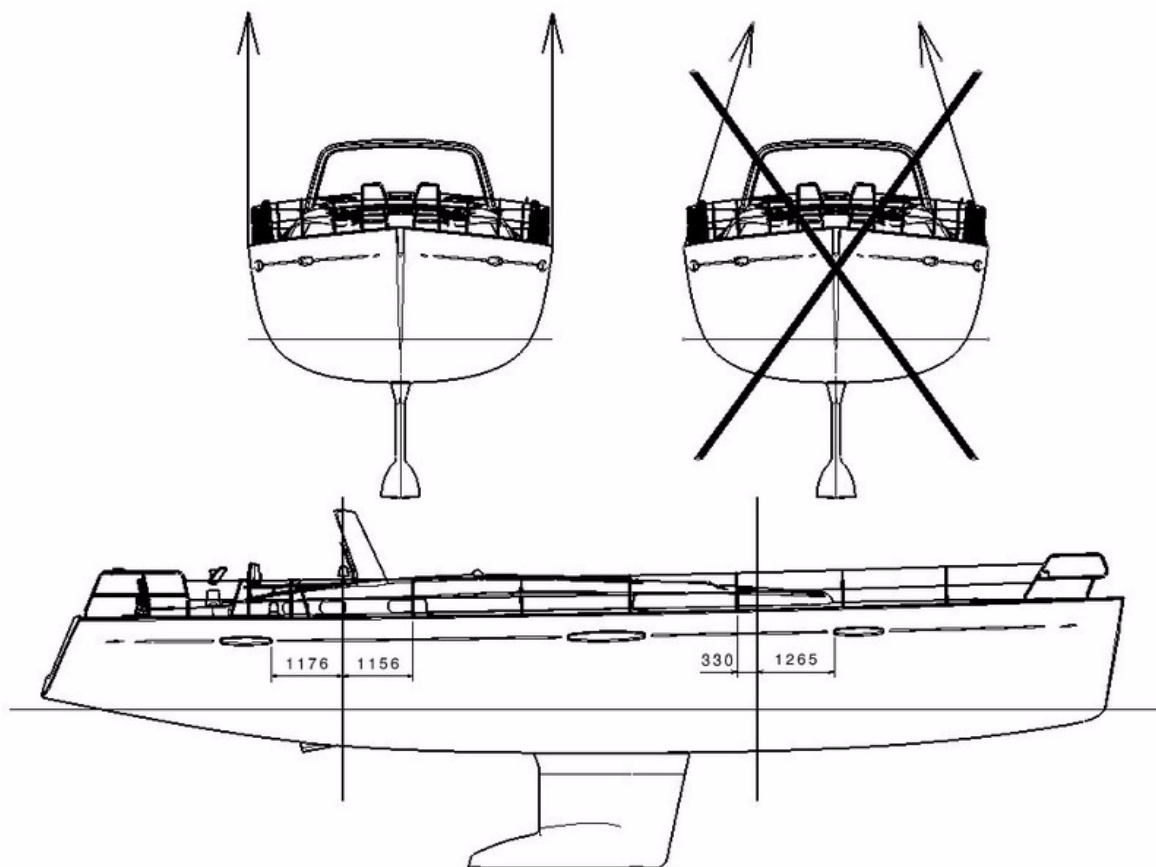
NOTE: If a safety fuse illuminates, this means that it is faulty. In this case the safety fuse must be replaced with a safety fuse of the same rating (see colour codes below).



Launching

- Launching recommendations
- Stepping the mast

POSITION OF HOISTING CRADLE AND STRAPS



Note: Measurements are expressed in mm.

Launching 11

■ LAUNCHING RECOMMENDATIONS

A lot of skill and care is required to commission your BENETEAU boat. The proper working of all your boat's equipment is the result of the quality of the commissioning operations.

In order to remain completely under guarantee in the case of any failure of parts or materials the first launching and the first trials of different equipment must be carried out by your BENETEAU dealer.

If later you have to launch your boat yourself, you should take the following precautions:

■ BEFORE LAUNCHING

- If your boat is to be fitted with sounder and speedometer, allow for the relevant fittings and their installation.
- Check the water intake strain box for cleanliness.
- Check the engine and reduction gear oil levels (refer to engine manual).
- Turn off the engine cooling water drain valves.
- Retract the speedometer into its housing (it may be damaged by the handling belts).
- For the on-line engines, check the anode at the end of the shaft is in place. Check the nut tightening (the lock washer shall be turned over onto the nut). The anode shall not be painted.
- Turn off all the water inlet and drain valves (sink, washbasin, heads, engine).

HANDLING

- Install a fore rope, a rear rope and fenders.
- When craning, check that no device is crushed by the belts (sounder, speedometer, shaft, etc.).
- Locate the strap positions using the stick-on markers. The belt position will be useful during the craning for a future launching.



WARNING

-Do not stay on board or under the boat during hoisting.



ADVICE - RECOMMENDATION

-The proper working of all your boat's equipment is the result of the quality of the commissioning operations.

Launching 11

AFTER LAUNCHING

- Check the sounder and speedometer fittings for tightness if need be.
- Open the valves and make sure that they are tight with the hull and relevant hose.

Before starting the engine, refer to chapter 10 "Engine".

■ STEPPING THE MAST

Please contact your dealer.

Winter Storage

- Laying up
- Protection and maintenance

Winter Storage 12

■ LAYING UP

- Take ashore all the ship's log, the ropes that are not used for mooring, the galley equipment, supplies, clothes, the safety equipment, batteries, the gas cylinder.
- Mark again the safety equipment, check the expiration dates, have the liferaft overhauled.
- Take advantage of this laying up to draw up a complete inventory of the equipment.

■ PROTECTION AND MAINTENANCE

INTERIOR

- Drain all the fresh water pipes and rinse them with water and vinegar (do not use a chlorine based product).
- Lubricate and close all the water inlet valves and thru-hull fittings. Rinse and completely drain the heads bowls and pumps.
- Remove the depth sounder and log sensors.
- Installed in the square of a dehumidifier air leaving the cabin doors and open storage (cupboards, coolers).
- Leave the cushions outside for long before putting them back into the boat in the upright and side position in order to have minimum contact surfaces.
- During long absence leave the fridge and icebox doors open to avoid mould developing.

EXTERIOR

- Thoroughly rinse the hull and deck.
- Grease all moving and mechanical parts (latches, hinges, locks, etc).
- Protect all ropes and mooring lines against chafing.
- Protect the boat as well as possible with fenders.
- Make sure the boat is properly moored.
- Bring the removable cushions inside (washed with soapy water then dried) when the vessel is unoccupied.

This is not an exhaustive list of recommendations. Your dealer will give you the advice you need and will carry out the technical maintenance of your boat.



ADVICE - RECOMMENDATION

- You alone know all the particularities of your boat and its equipment:
- To lay up your vessel carefully and methodically is the best guarantee to avoid problems when re-fitting out.
- This is not an exhaustive list of recommendations. Your dealer will give you the advice you need and will carry out the technical maintenance of your boat.
- Take advantage of this laying up to draw up a complete inventory of the equipment.

Winter Storage 12

ENGINE

The engine winterization shall be carried out by a professional. Depending on the boat location, afloat or ashore, winterization is different. Here are a few major tasks to carry out:

Afloat

- Drain the cooling system and fill it with antifreeze.
- Shut off the battery switches, grease the terminals and check the battery voltage.
- Fill the fuel tanks to a maximum in order to avoid condensation.
- Please refer to the engine manual for anything relating to the engine.

Ashore

- Take the batteries ashore and keep them on maintenance charge.
- Change the anode.
- Carry out the winterization operations specified by the manufacturer, keeping in mind that the freeze hazard is more significant when the boat is ashore.
- Slacken the a.c. generator and pump belts.

Personal notes

Dealer stamp

The present document is not contractual and since we constantly desire to improve our models, we reserve the right to modify them without notice.



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