SWIFT TRAWLER 42

Owner's Manual

BENETEAU

Code: 087851
Index C

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

HISTORY OF UPDATES

- Index A..... 10/2008
- Index B..... 01/2010
- Index C 09/2010

Contents

1

General specifications

- Technical specifications
- Certification
- Design category
- Your boat

TECHNICAL SPECIFICATIONS SWIFT TRAWLER 42

L.O.A ..... 13,60 m
Hull length ..... 12,17 m
L.W.L. ..... 11,41 m
Overall width ..... 4,25 m
Beam ..... 4,17 m
Waterline beam ..... 3,86 m
Air draught - Empty vessel (with cargo boom) ..... 7,00 m
Air draught - Empty vessel (cargo boom folded) ..... 3,90 m
Draught ..... 1,05 m
Light displacement ..... 10 895 kg
Displacement with maximum load ..... 15 590 kg
Charge maxim registered ..... 4 695 kg
Recommended maximum power ..... 672 kW
Weight max engine (Category B/C) ..... 1 354 kg
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.
Total mass of liquids (all tanks full) ..... 1 975 kg
Freshwater capacity ..... 2 x 320 l
Sewage water capacity ..... 85 l + 50 l
Fuel oil tank capacity ..... 2 x 750 l
Refrigeration unit capacity ..... 130 l + 42 l
Battery capacity - Service ..... 2 x 140A
Battery capacity - Engine ..... 4 x 50A
Battery capacity - Generator 110A
Cabins 2
Sleeping capacity 6

Build material: ..... Laminated polyester.
Architect ..... JOUBERT / NIVELT - Beneteau Power
The engine is the main propulsion means of the SWIFT TRAWLER 42.

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

CERTIFICATION

CE Category	Persons Maximum
B	12 persons
C	14 persons
D	16 persons

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"	Over 8	Over 4
B - "In open sea"	Up to and including 8	Up to and including 4
C - "Near to the coast"	Up to and including 6	Up to and including 2
D - "In sheltered waters"	Up to and including 4	Up to and including 0,3

The SWIFT TRAWLER 42 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: .....

Address: .....

.....

Telephone:.....

email: .....

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

Name of the boat: .....

Delivery date: .....

Registration number:.....

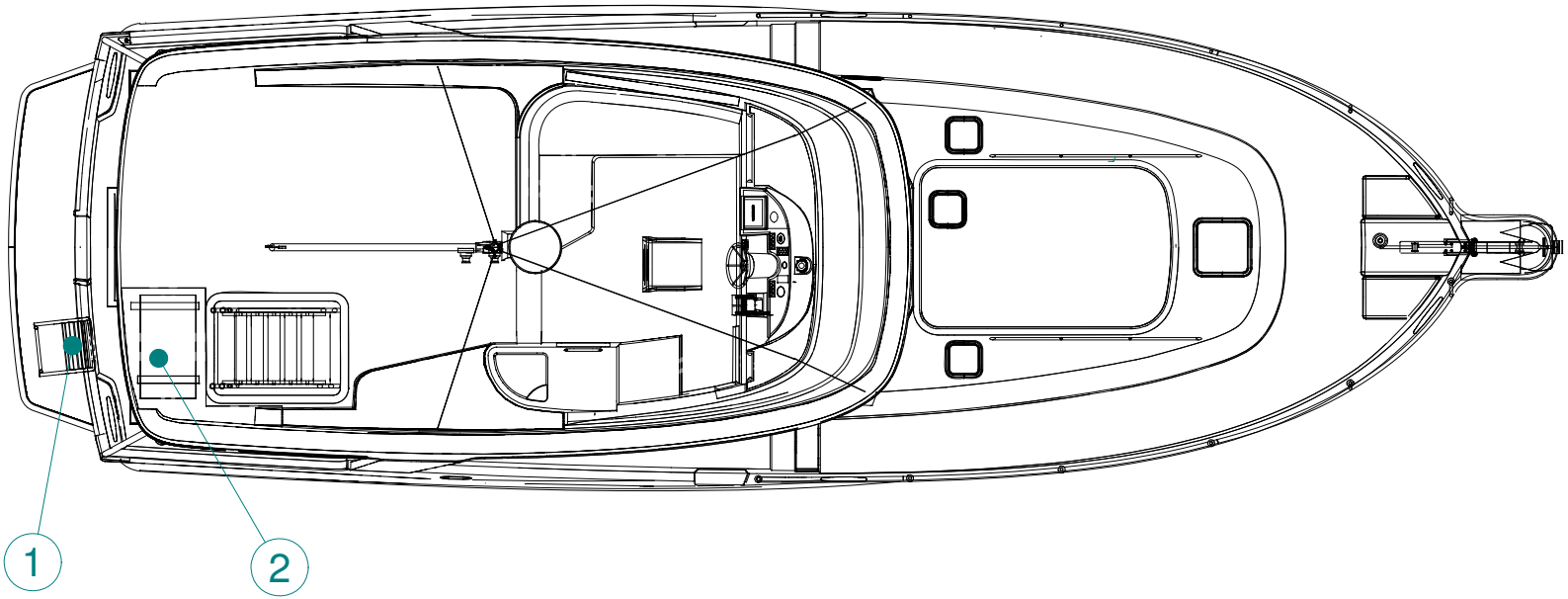
Serial number (C.I.N): .....

Entrance door key n°: .....

Engine type		
Serial number		
Engine key number		

Safety

- Safety Equipment
- General information
- Gas system
- Recommendations for gas
- Fight against fire
- Bilge pump system
- Instructions in the event of steering gear failure



REF	Designation
1	Position of swimming ladder (means of coming back onboard)
2	Position of the liferaft (not supplied)

Swimming ladder (Reference 1)
Closed position

Position of the liferaft
(Reference 2)

GENERAL INFORMATION

DANGERS

The major hazards concern:

- The gas system.
- The electrical system.
- 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

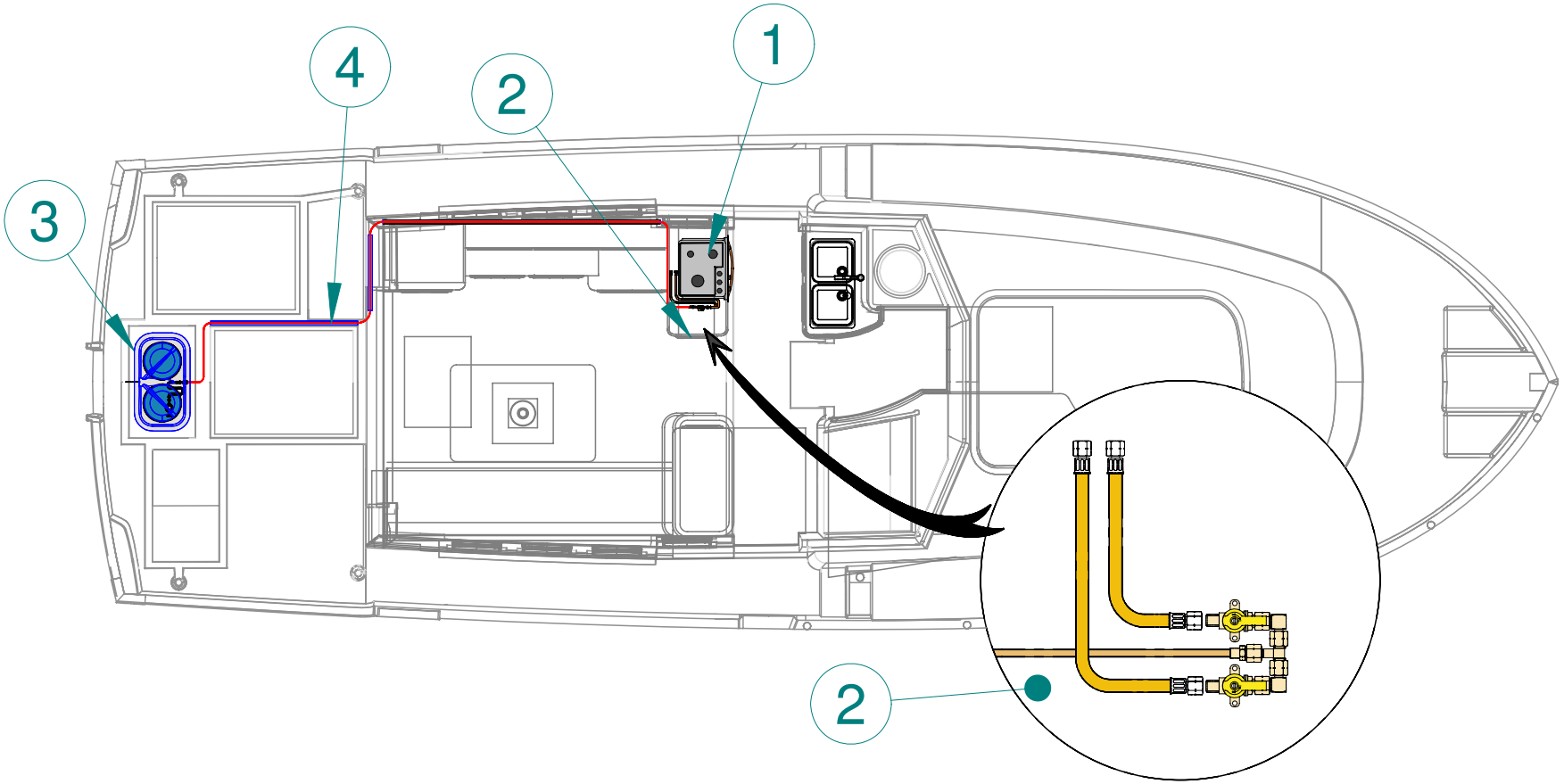
- Before you sail, list the compulsory safety equipment.
- Don't exceed the number of persons indicated in the chapter 'Specifications'.
- The total weight of the persons and equipment must never exceed the maximum load recommended by the manufacturer.
- Use the seats provided.

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

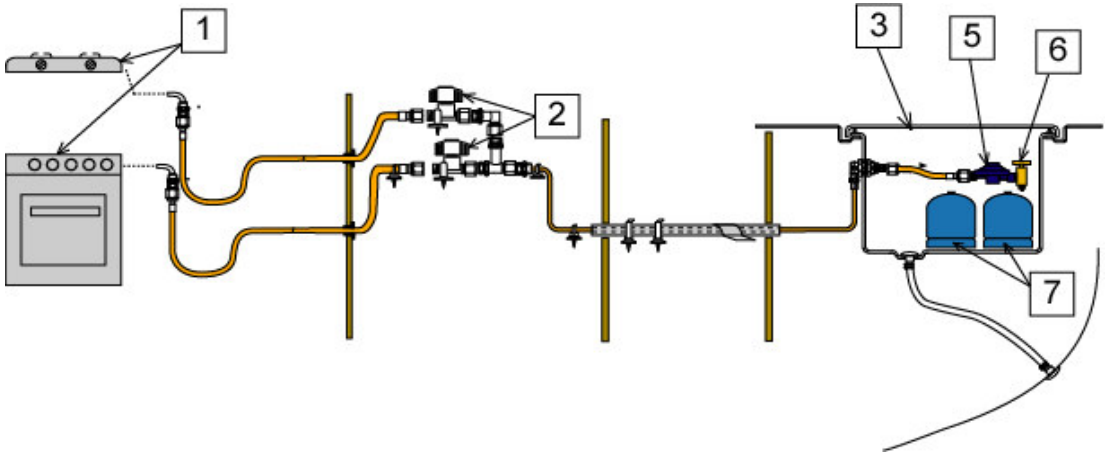
LOCATION



Note: Same position for the other layouts.

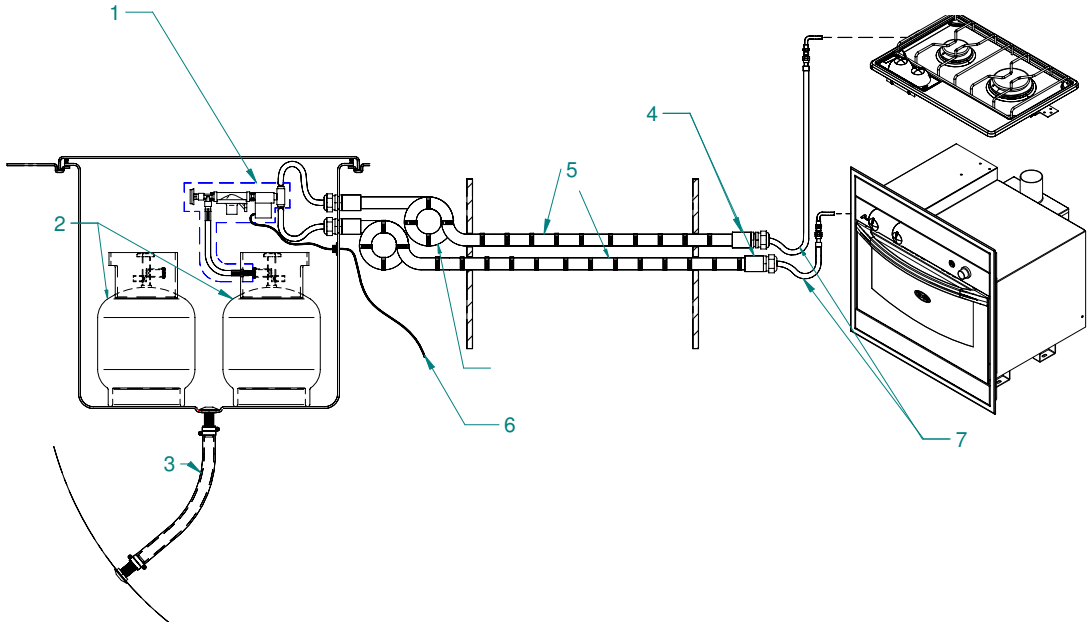
REF	Designation
1	Cooker - Oven
2	Supply valve gas
3	Compartment Gas cylinder
4	Gas system

GAS SYSTEM DIAGRAM - VERSION EUROPE



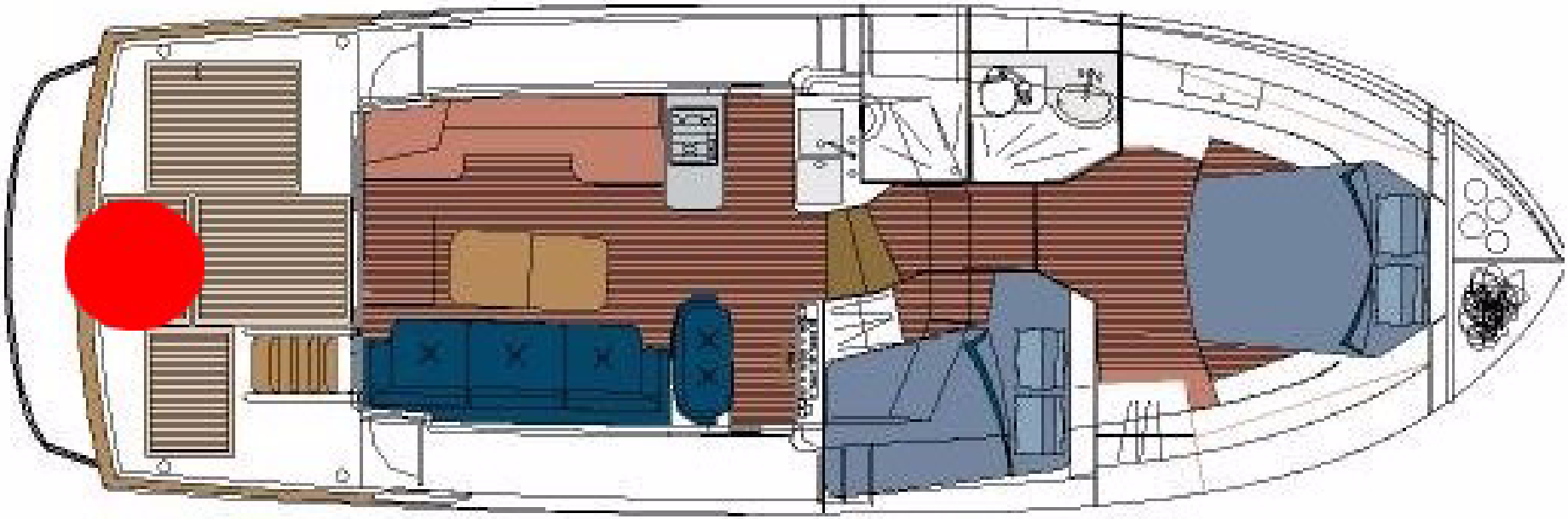
1. Cooker - Oven
2. Valves
3. Compartment Gas cylinder
5. Regulator valve
6. Tap to turn off the gas
7. Gas cylinder

GAS SYSTEM DIAGRAM - VERSIONUSA



1. Regulator valve 12 V
2. Gas cylinder
3. Drain
4. Stuffing box
5. PVC girdled sleeve
6. Electromagnetic valve 12 V
7. Pipe propane plastic

POSITION OF GAS BOTTLE



6. Open valve
7. Closed valve

The valve is located under the kitchen cupboard

A pictogram helps to locate it easily

Compartment Gas cylinder

RECOMMENDATIONS FOR GAS

Type of cylinder: butane, service pressure 10 kg/cm^2 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

- 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).

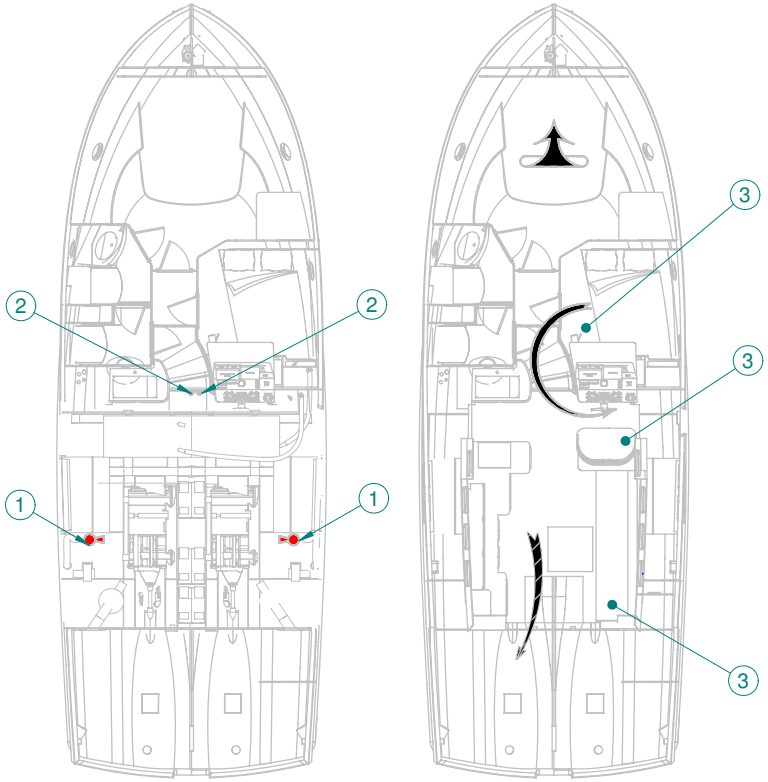
-For winter storage instructions and precautions, refer to Chapter 11.

EMERGENCY EVACUATION AND LOCATION OF EXTINGUISHERS

Fixed position extinguishers (Reference 1)
- Engine compartment

Emergency exits in case of fire

- Deck hatch of the fore cabin
- Sliding hatch
- Side doors



1. Location of fixed extinguishers (fitted)
2. Extinguisher remote pull-switch
3. Position of portable extinguishers (not supplied)

Extinguisher remote pull-switch (Reference 2)

A pictogram helps to locate it easily

Procedure to exit through the forward cabin deck hatch:

1. Lift up the forward cabin mattresses and put them to the outer sides
2. Take hold of the wooden step between the lathes
3. Pull the step upwards until the locks clip into the vertical tubes

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 reached by the port catwalk. 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,
  - the position of the remote fixed extinguisher control,
  - 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.

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.

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

DANGER

-.To enable functioning of the fixed fire extinguishers, the safety pins on each extinguisher must all be removed completely.

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.

EXTINGUISHERS

The extinguishers are part of the compulsory equipment.

An extinguisher and a fire blanket must be placed less than 2 m from any naked 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 from the engine compartment.

An extinguisher shall be less than 2,5 m from the steering station.

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

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

For the SWIFT TRAWLER 42: 15A/102B*1. (3 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).

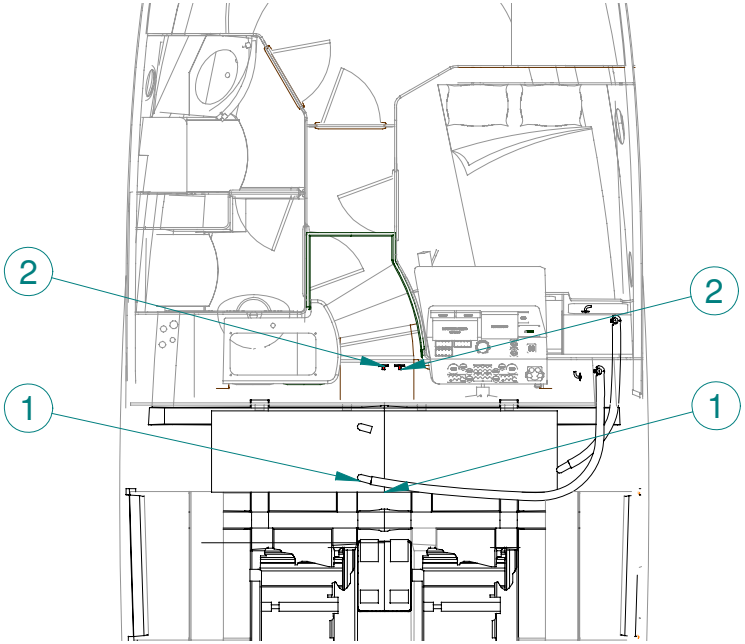
WARNING

- 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.

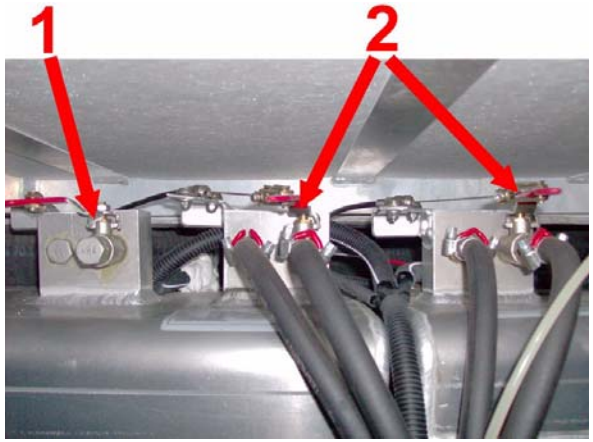
WARNING

- The **CO^2** 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 ENGINE AND GENERATOR SUPPLY VALVES



Remote valve shut off controls (Reference 2)



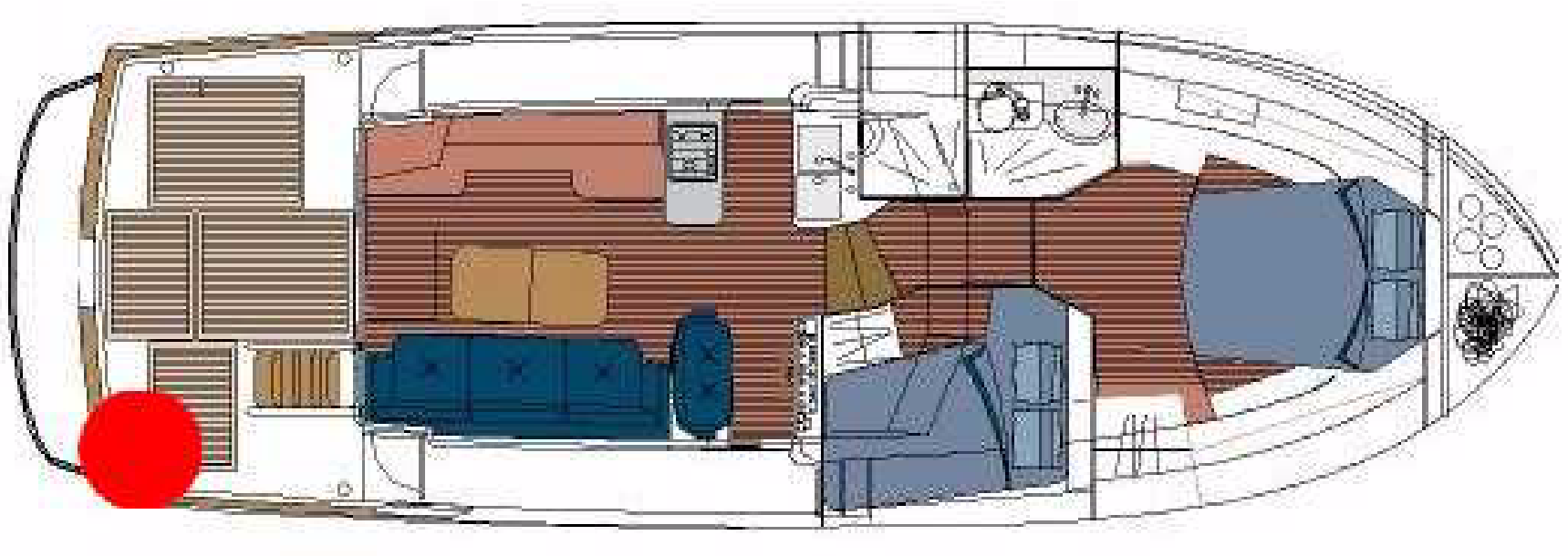
Supply valve fuel - On tanks (Reference 1)

1. Joining generator
2. Valves supply fuel

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.
- Activate the remote extinguisher pull switch.
- Wait.
- Open the access hatches and repair.

USE OF THE MANUAL BILGE PUMP



Location

Operation

Capacity: 40,5 litre / minute

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

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.

The first bilge pump drains the forward section (living space) of the vessel.

Forward electrical bilge pump
Location - Under the companionway
Capacity: 15 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.

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.

The second bilge pump drains the aft section (service compartment and engine compartment).

Aft electric bilge pump
Location - Starboard cockpit locker

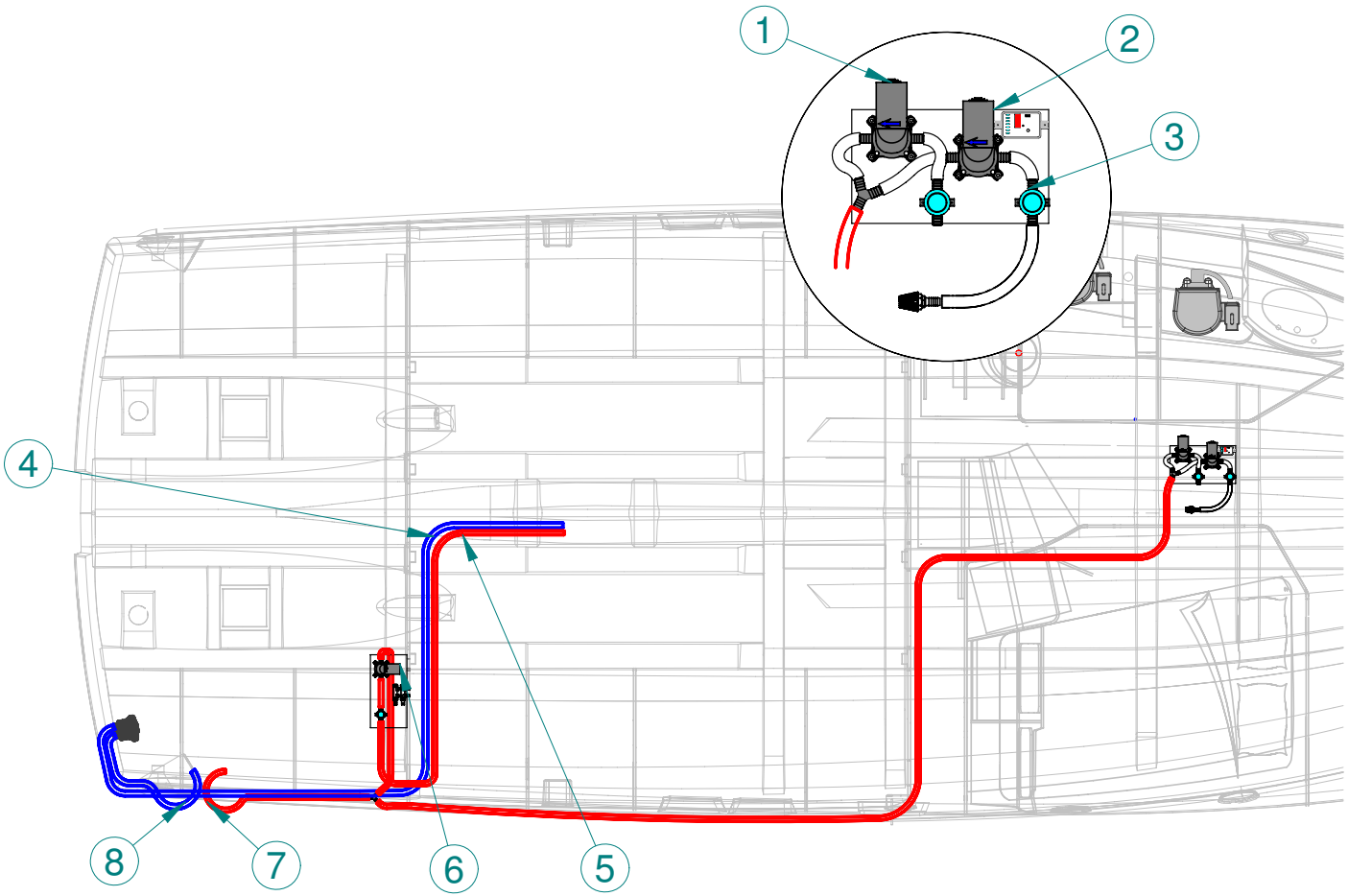
Capacity: 15 litre / minute

MANUAL BILGE PUMP

The manual bilge pump is in the cockpit.

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

BILGE PUMP SYSTEM



1. Draining pump for shower
2. Electric bilge pump
3. Filters
4. Manual bilge pump suction
5. Electric bilge pump suction
6. Electric bilge pump
7. Electric bilge pump draining
8. Draining of manual bilge pump

INSTRUCTIONS IN THE EVENT OF STEERING GEAR FAILURE

On a twin-engined vessel the emergency tiller system works on the difference in drive between the port and starboard engines (difference in throttle and/or forward/aft).

Hull

- Maintenance of the Hull
- Lifting

LIFTING

Wetted area: 48 m²

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 10 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.

ADVICE - RECOMMENDATION

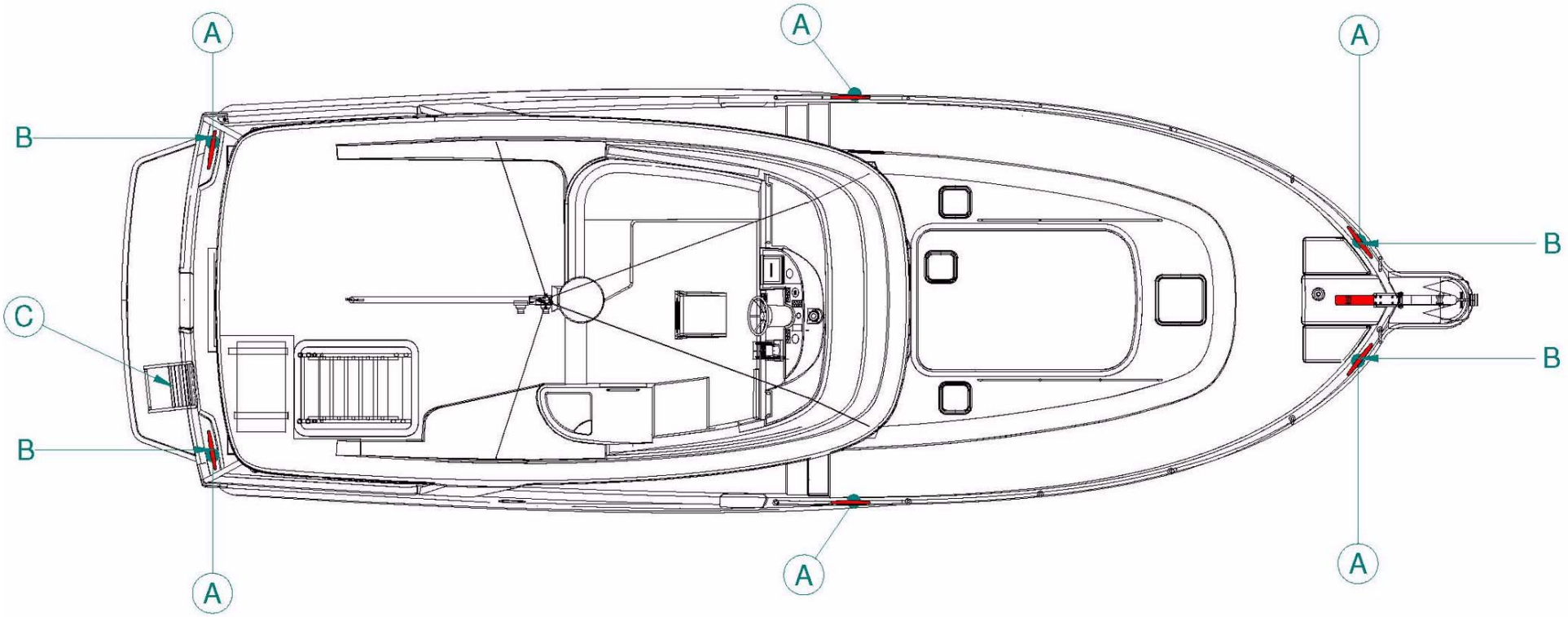
-When in dry dock check the anode on the propeller shaft line.

- See "Motorisation" chapter.

Deck

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

NAVIGATION - DECK LAYOUT



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

STABILITY

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

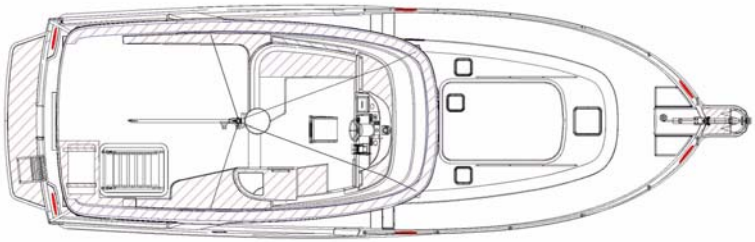
During sailing keep all the portholes, windows and doors closed.

- The stability is reduced when you add weight in the upper parts.
- Stability may be reduced when towing a boat or when heavy loads are raised using the crane.

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.



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.
- Pass warps through the fairleads provided for this purpose.

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).

Cockpit door

When sailing it is essential put on the safety lock with the door in the closed positon

Holding magnet with door in open position

Opening Deck hatches

Opening Portlight

Jamming the door window when sailing

Cargo boom

Gangway side door: in open position when sailing it is essential to fix the hook to secure the door

Flying bridge bimini top

Access to fly-deck by cockpit ladder

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.

GROUND TACKLE

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

- Start the boat engines running.
- 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.

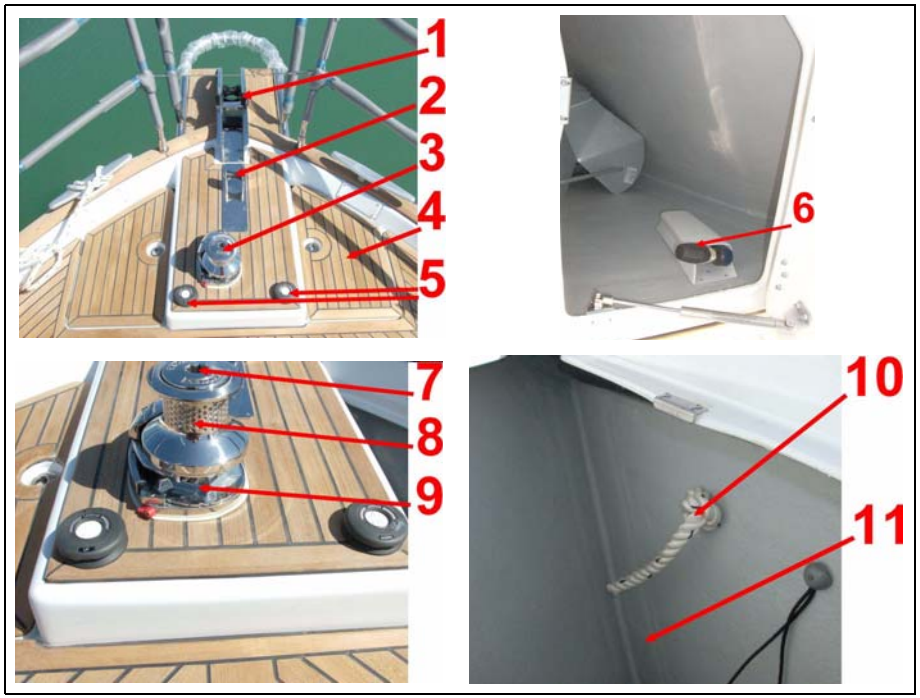
-If your boat is equipped with the twin control optional extra, make sure you use **only one**control at the same time.

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.

DECK ELECTRIC WINDLASS - BREAKER



1 Bow fitting
2 Guide - Chain
3 Electric windlass 12 V 1000 W
4 Mooring locker
5 Windlass control - upward / Companionway
6 Handle
7 Handle position
8 Smooth gypsy head
9 Chain lifter 10 diameter
10 Clinch
11 Fender storage

Windlass control

Inside wheelhouse

Flying bridge

Location Windlass circuit breaker 100A - Under the companionway

Battery switch panel

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.

USE OF THE SMOOTH GYPSY

- Unlock the cable liter

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.
- Secure the anchor on the bow roller

STERN ANCHORING

Stern anchoring shall be performed with the engine declutched.

- Secure the required length of cablet on the mooring cleat.
- Pay out the anchor line slowly.
- Take care not to damage the propellers and rudders.

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

- Free the chain tension using the windlass before closing the mooring locker hatch. Secure the anchor on the bow roller.

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.

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.

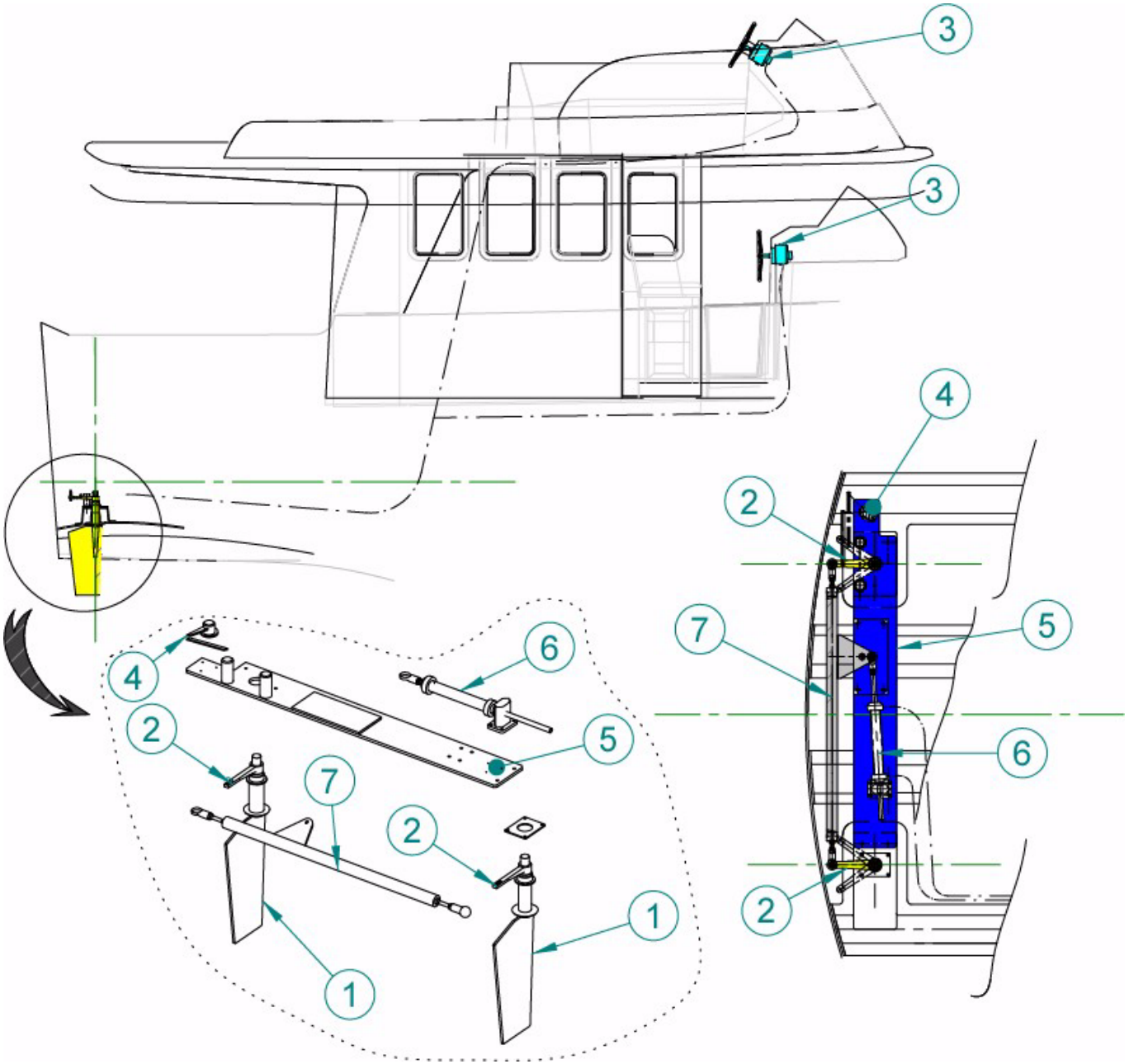
-Don't use a pressure washer.

Steering system

5

- Steering Gear

General layout



1. Stock
2. Steering connecting rod
3. Steering pump
4. Tiller angle indicator
5. Position for pilot option
6. Steering piston
7. Connecting rod

STEERING GEAR

MAINTENANCE

- Regularly check:
  - The tightness of the steering system components.
- 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.

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.

-The reverse gear is not a brake.

WARNING

-The steering system is a feature of sailing safety and for this reason must be verified at least once a year.

ADVICE - RECOMMENDATION

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

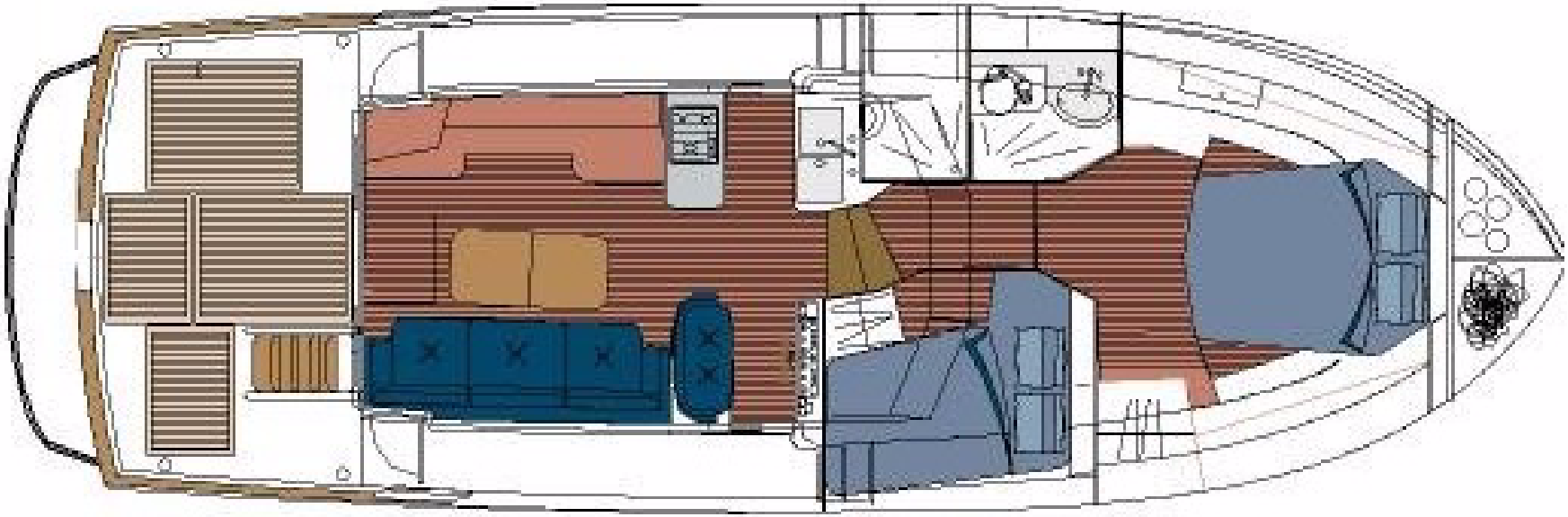
ACCESS TO ELEMENTS - ENGINE COMPARTMENT

Steering pump	Steering components
	

Interior

6

- Introduction
- Interior maintenance
- Maintenance of fabrics



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 / Cool boxes.

INSIDE VARNISH

- Clean the interior varnish with freshwater mixed with a degreasing 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

-.Use as few cleaning agents as possible.

-Don't discharge cleaning agents into the water.

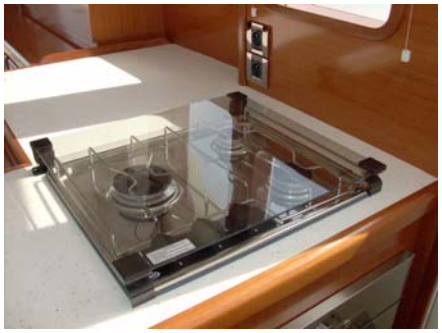
-Take the removable upholstery inside when the vessel is not being used.

-Place protective covers/awnings.

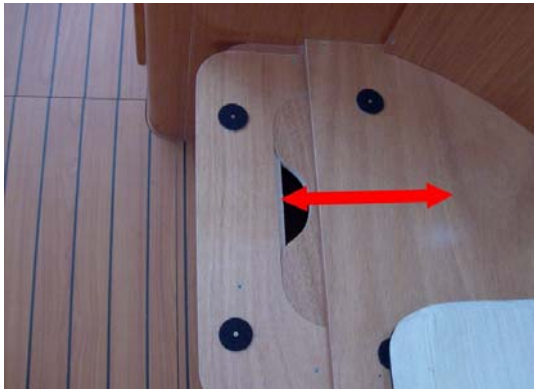
-Mark up each cover and foam when dismantling.

Sink

Hot plate



Seating removable - Saloon



Stowage - double berth saloon

Door locking from the inside

Locking the washroom door

LEATHER

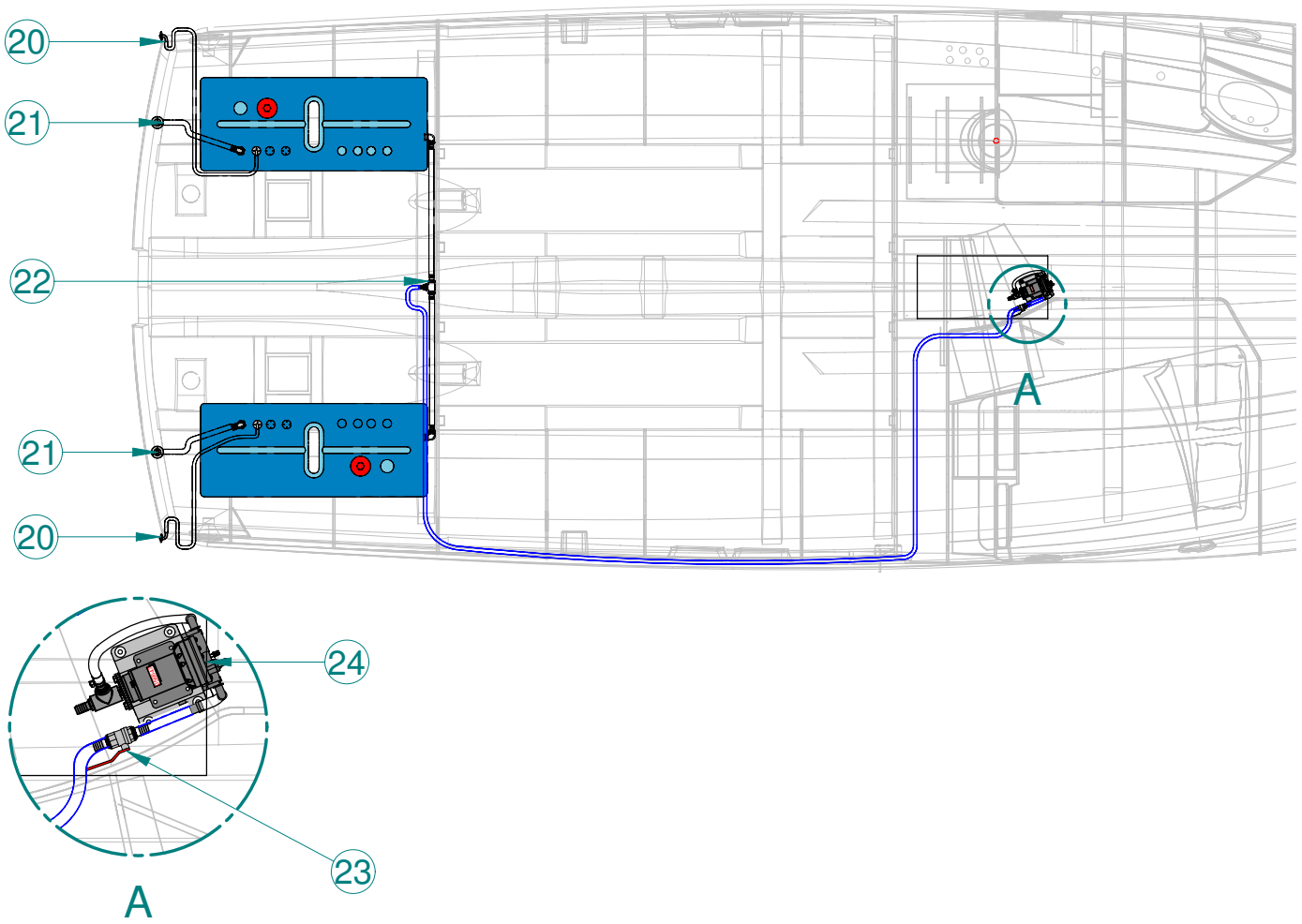
- Use a leather cream for ordinary care.
- Do not use detergent.
- Do not use silicone based products.
- Clean with a sponge and soapy water.
- Remove ball point pen marks with methylated spirit.
- Remove the grease stains with an absorbent powder (e.g. talcum powder).

Water and sewage water

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

7

WATER TANKS - LOCATION



REF	Designation
20	Vent hole
21	Deck filler
22	Collector
23	Supply valve - Water
24	Water unit

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.

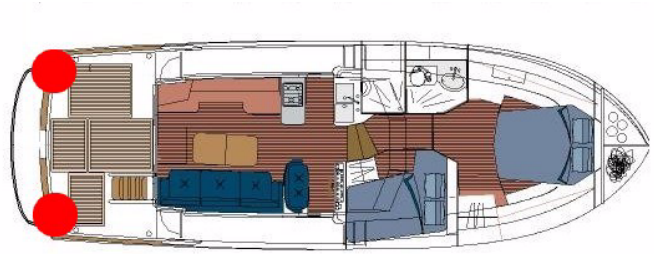
Check the filler cap seals for condition during filling.

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.

Water tanks capacity: 2 x 320 litre.

Location: Cockpit locker



Deck filler - Location

Gauge

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.

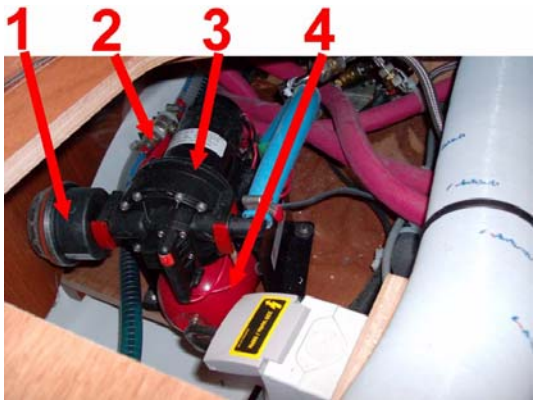
-It is possible to sterilize the tanks with a Clonazione tablet (sold at the Chemist's).

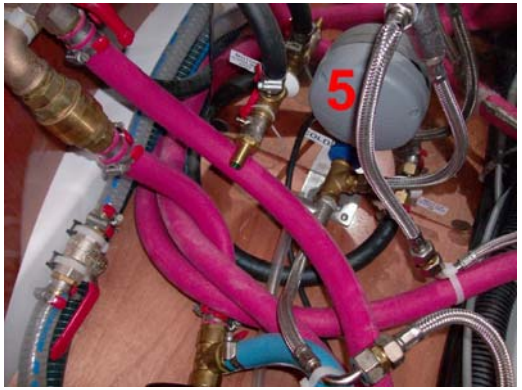
-If the boat is not used for long, purify the tanks and pipes with acetic acid (or white vinegar).

-For winter storage instructions and precautions, refer to Chapter 11.

PLUMBING BOARD

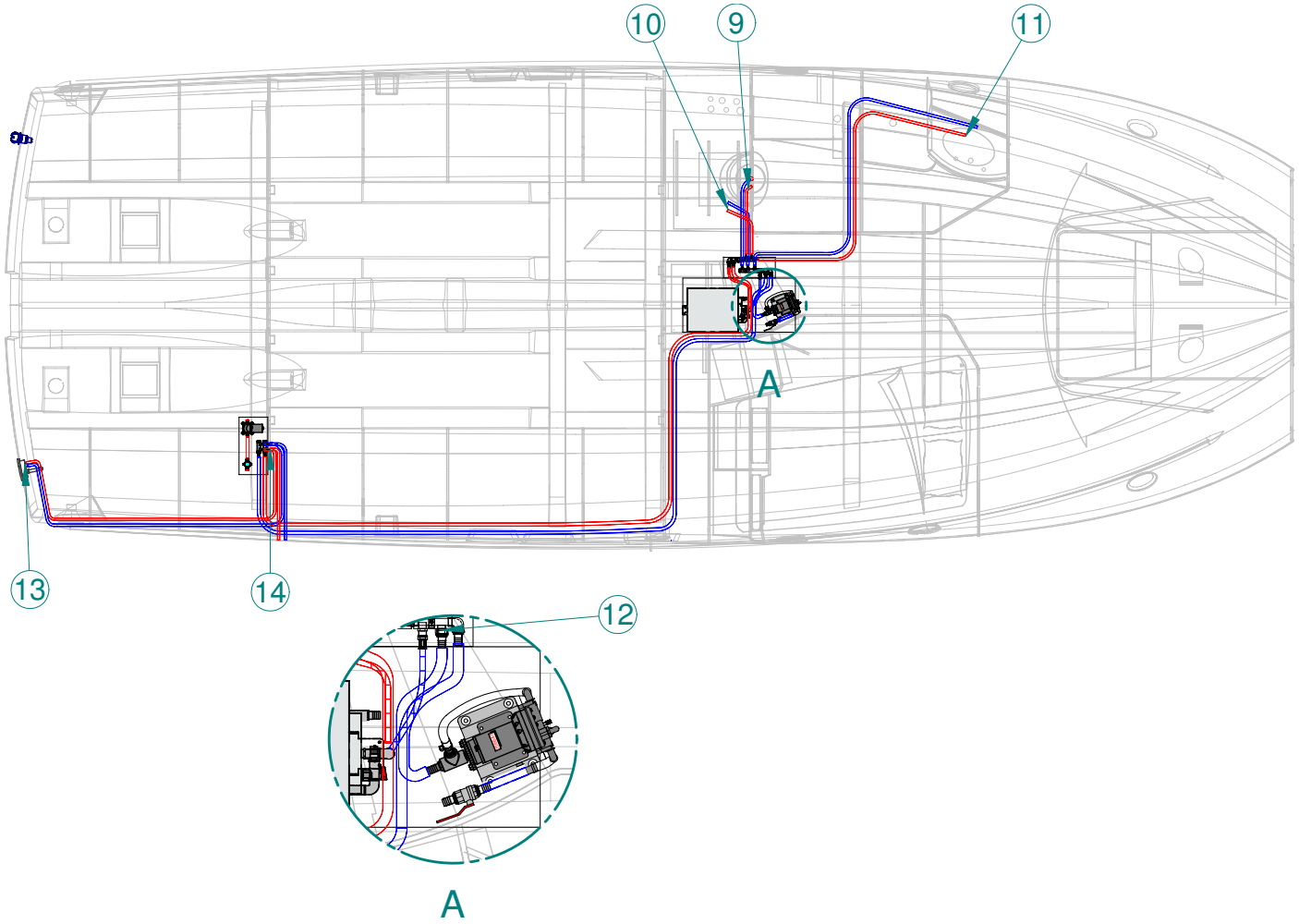
Location - Under the companionway





REF	Designation
1	Filters
2	Supply valve - Water
3	Water pump 12V
4	Accumulator tank
5	Water heater 220 V 42 l

WATER SYSTEM - DISTRIBUTION



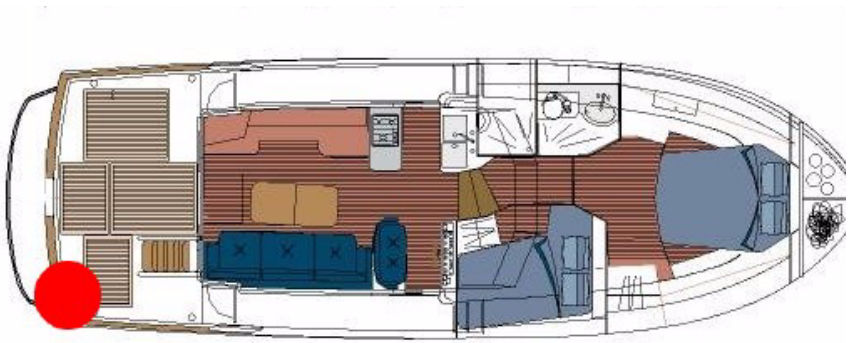
REF	Designation
9	Distribution hot water/cold water - Aft washbasin
10	Distribution hot water/cold water - Galley sink
11	Distribution hot water/cold water - Forward washbasin
12	Collectors
13	Distribution hot water/cold water - Cockpit shower spray
14	Distribution hot water/cold water - Flying bridge

WATER SYSTEM - DISTRIBUTION

USE OF THE WASHBASINS AND SHOWERS

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

Cockpit shower spray (With mixer)



WARNING

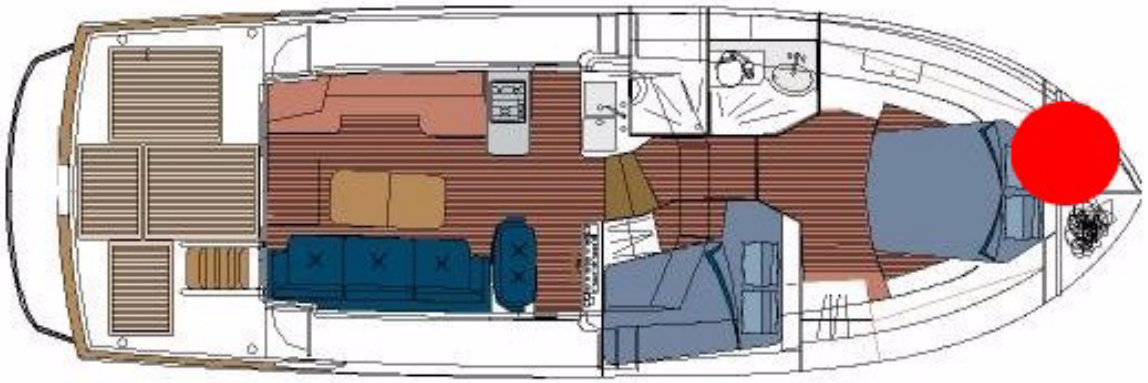
-To avoid freezing during very cold spells and/or winter storage bleed the cockpit shower hose and seawater deck wash pump water systems.

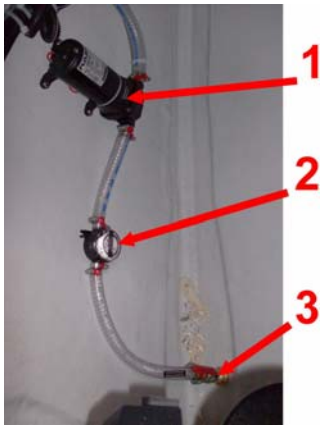
PRECAUTION

-Never operate the water system equipment when the valve is closed or the tank is empty (the electrical equipment may be damaged).

-.Monitor the condition of the seawater filter.

-Close the taps of empty tanks.

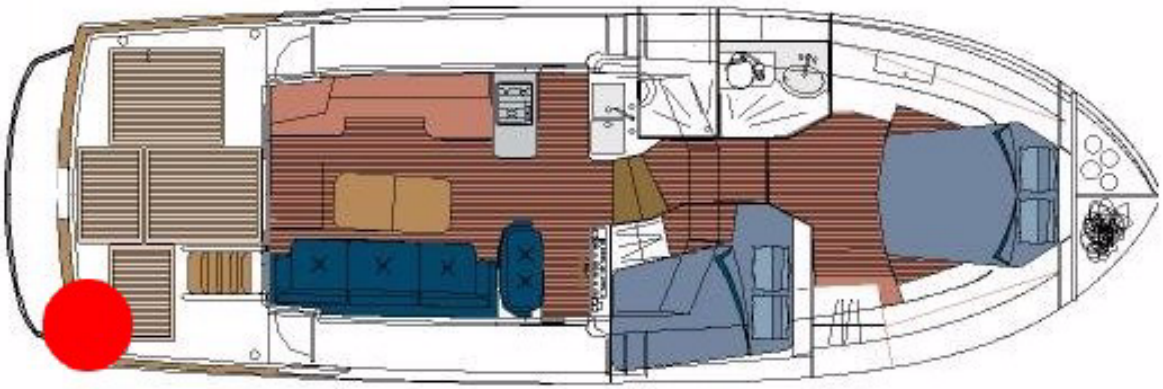




Location - under the bed forward cabin

1. Seawater pump
2. Filter
3. Seawater inlet

SHORE FRESHWATER SUPPLY

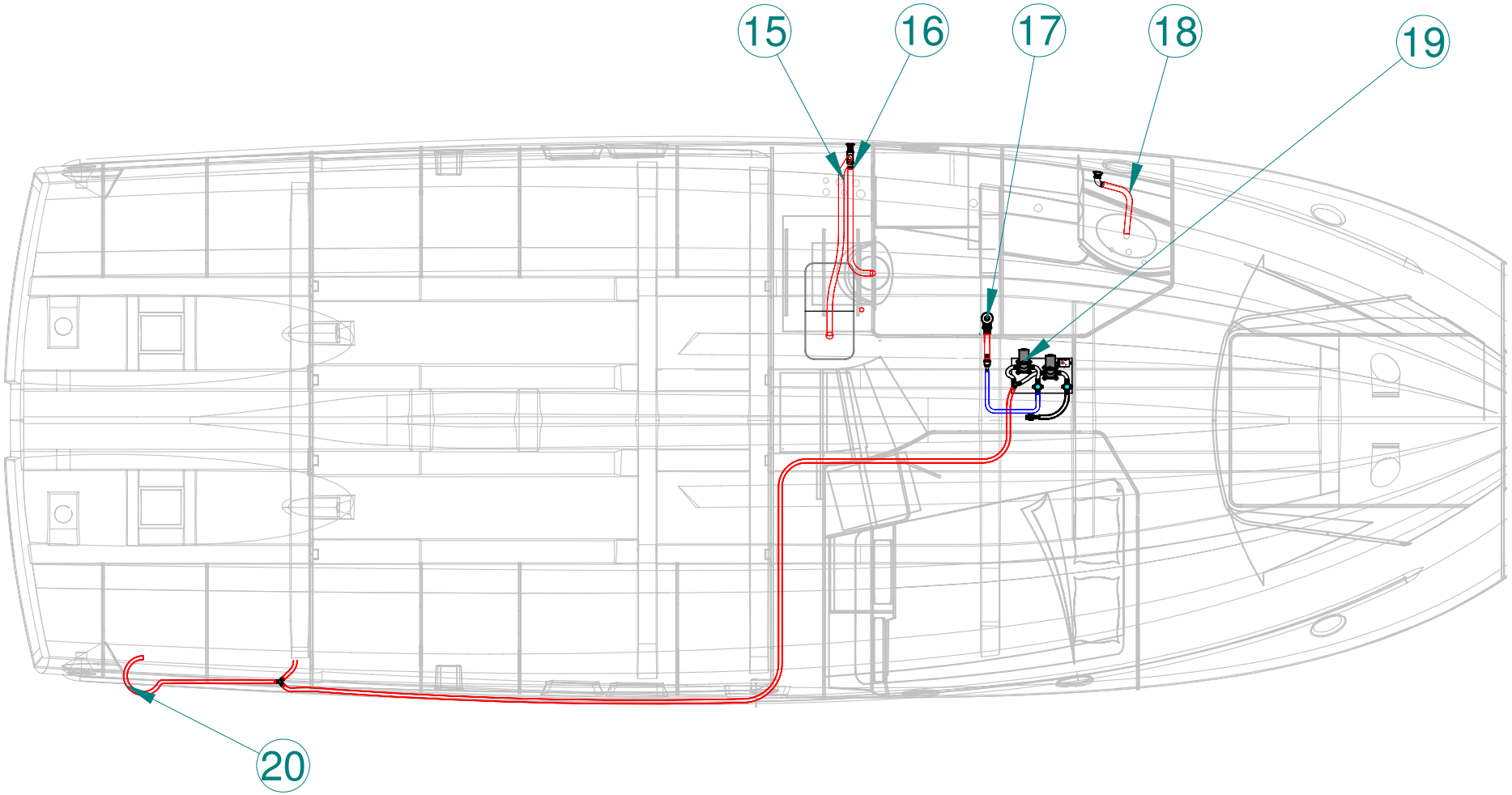


Selection valve - Shore fresh water / On board water circuit
Location: Under the companionway

WARNING

-Before leaving the vessel you must turn off the shore water supply.

WATER SYSTEM - DRAINAGE - WASTE WATER



REF	Designation
15	Kitchen sink drain
16	Washbasin draining aft
17	Shower draining - circa filter
18	Vent hole
19	Draining pump for shower
20	Vent hole

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.The tanks' nominal capacity cannot be fully used due to the load and the need to maintain the correct trim.

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

-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.

Thru-hull fitting closed

Thru-hull fitting open

Sink draining Galley +
Washbasin aft washroom

Shower tray draining
Shared drain hole 2 head compartments

Washbasin draining
Fore washroom

Draining pump for shower - Under the companionway

Control shower draining

Kitchen sink evacuation through-hull shower - Starboard cockpit locker

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).

WC evacuation to sea

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').

ELECTRIC TOILET

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.

Electric toilet forward	Seawater pump + filter	Control - Electric toilet
		
1. Seawater inlet 2. WC evacuation to sea		1. Rinsing out the bowl 2. Water filling to the left and bowl draining to the right

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.

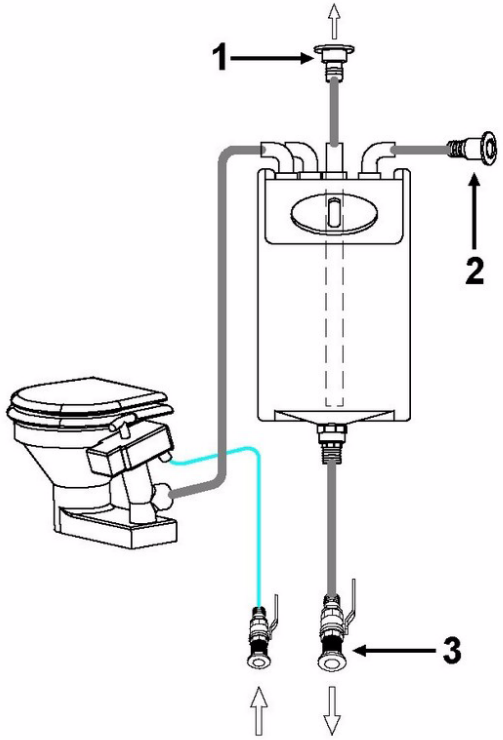
Find out the international regulations against marine pollution (Marpol) and follow them as far as possible.

ADVICE - RECOMMENDATION

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

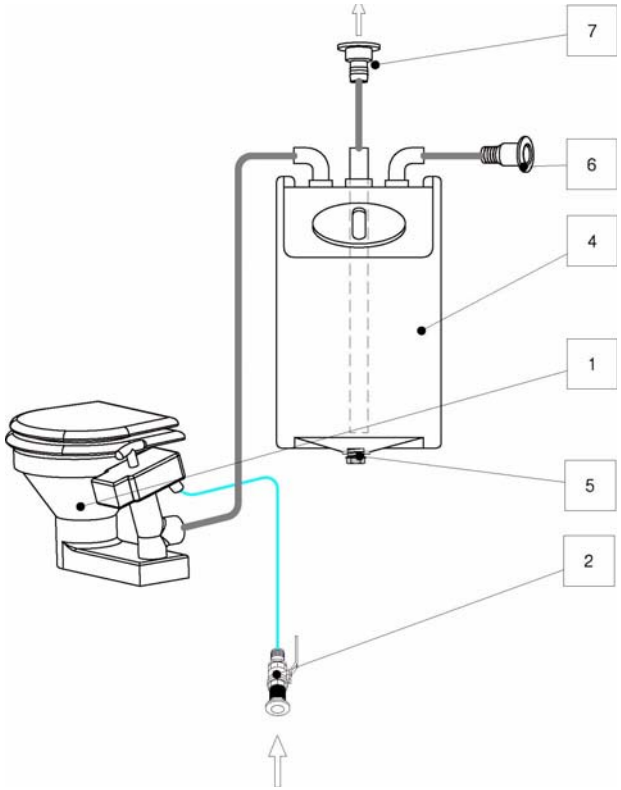
BLACK WATER CIRCUIT - SCHEMATIC DIAGRAM

Deck or sea evacuation



1. Deck filler - Suction and Rinsing
2. Tank vent hole
3. Thru-hull seacock

Deck only evacuation



1. WC
2. Seawater inlet
4. Sewage tank
5. Closing cap
6. Vent hole
7. Deck filler: Intake / Rinsing off

SEWAGE TANK

To empty the tank (Ashore):

- 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.
- Capacity of sewage tank:
- standard: 85 litre
- additional: 50 litre

WC evacuation Deck
Location Filler cap Passageway Port side

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.

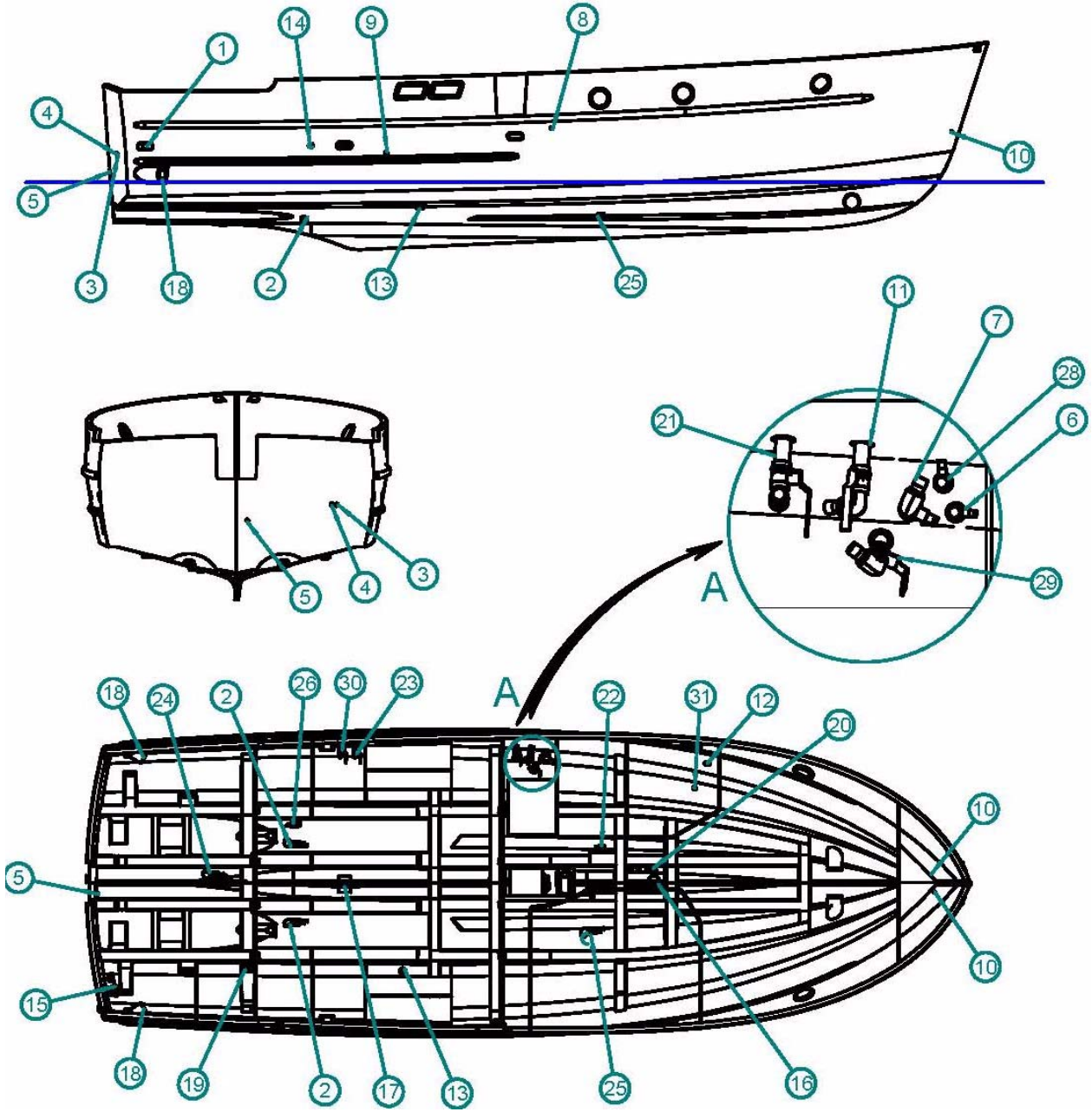
PRECAUTION

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

PRECAUTION

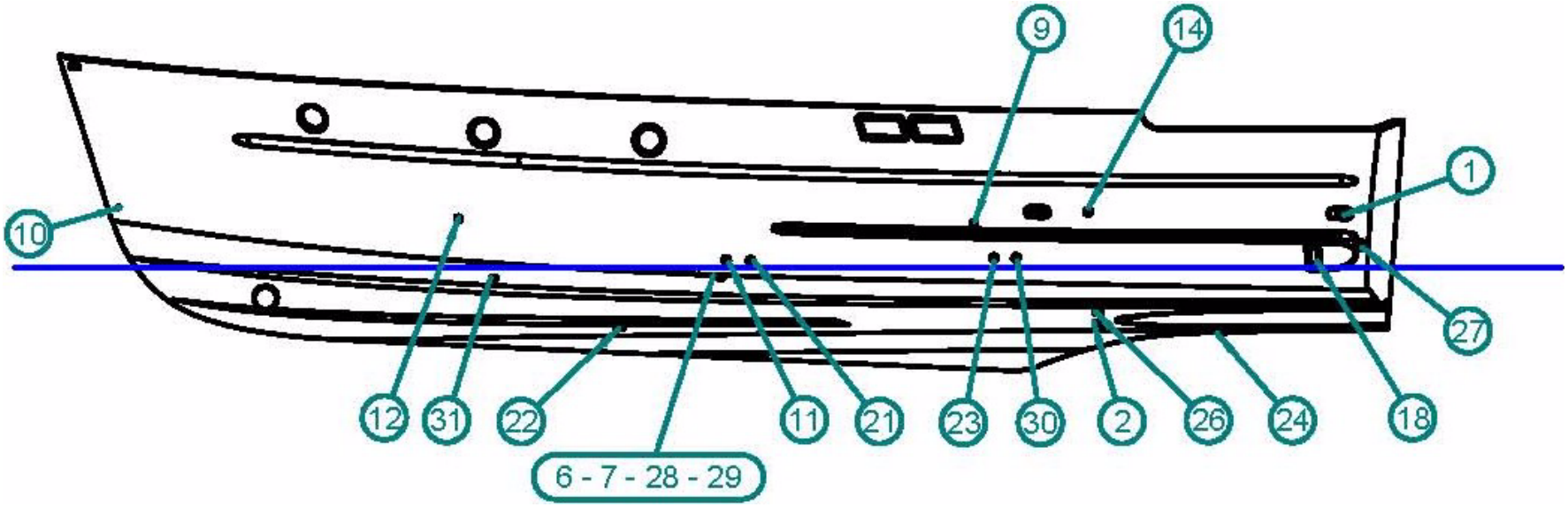
-Regular check the tank level. High pressure due to too high a level may cause leaks or more unpleasant troubles.

SYNOPTIC - SCUPPERS, THRU-HULL FITTING, DRAINAGE



1. Cockpit draining
2. Sea water inlet valve for engine
3. Drainage Electric bilge pumps + Waste water Shower
4. Draining of manual bilge pump
5. Vent hole Gas cylinder locker
6. Port fwd WC suction
7. Port fwd WC draining
8. Drainage Fuel overflow
9. Drainage Water
10. Drainage - Mooring locker
11. Sink draining + Washbasin
12. Washbasin draining forward
13. Lead lines Electronic
14. Drainage Fly
15. Manual bilge pump
16. Intake strainer Forward electrical bilge pump
17. Intake strainer Aft electric bilge pump
18. Engine exhaust
19. Aft electric bilge pump
20. Forward electrical bilge pump
21. Drainage Washer
22. Drainage - Sewage tank
23. Drainage Dishwasher
24. Intake AC Saloon
25. Intake AC Cabins Forward and aft
26. Water intake for generator
27. Generator exhaust
28. Intake WC Port aft
29. Drainage WC Port aft
30. Drainage Air conditioning aft
31. Drainage Air conditioning forward

Water and sewage water 7



Electrical equipment

- General information
- 12 V DC system
- 110-220 V AC system
- Equipment
- Electronic

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.

ELECTRICAL CIRCUIT, 12 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 equipement) by components exceeding the capacity (amperage) of the circuit (Watt for bulbs).
- 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 that the 12 V circuit wires are red for positive and black for negative.

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 conctact with it. Obtain medical advice.

ADVICE - RECOMMENDATION

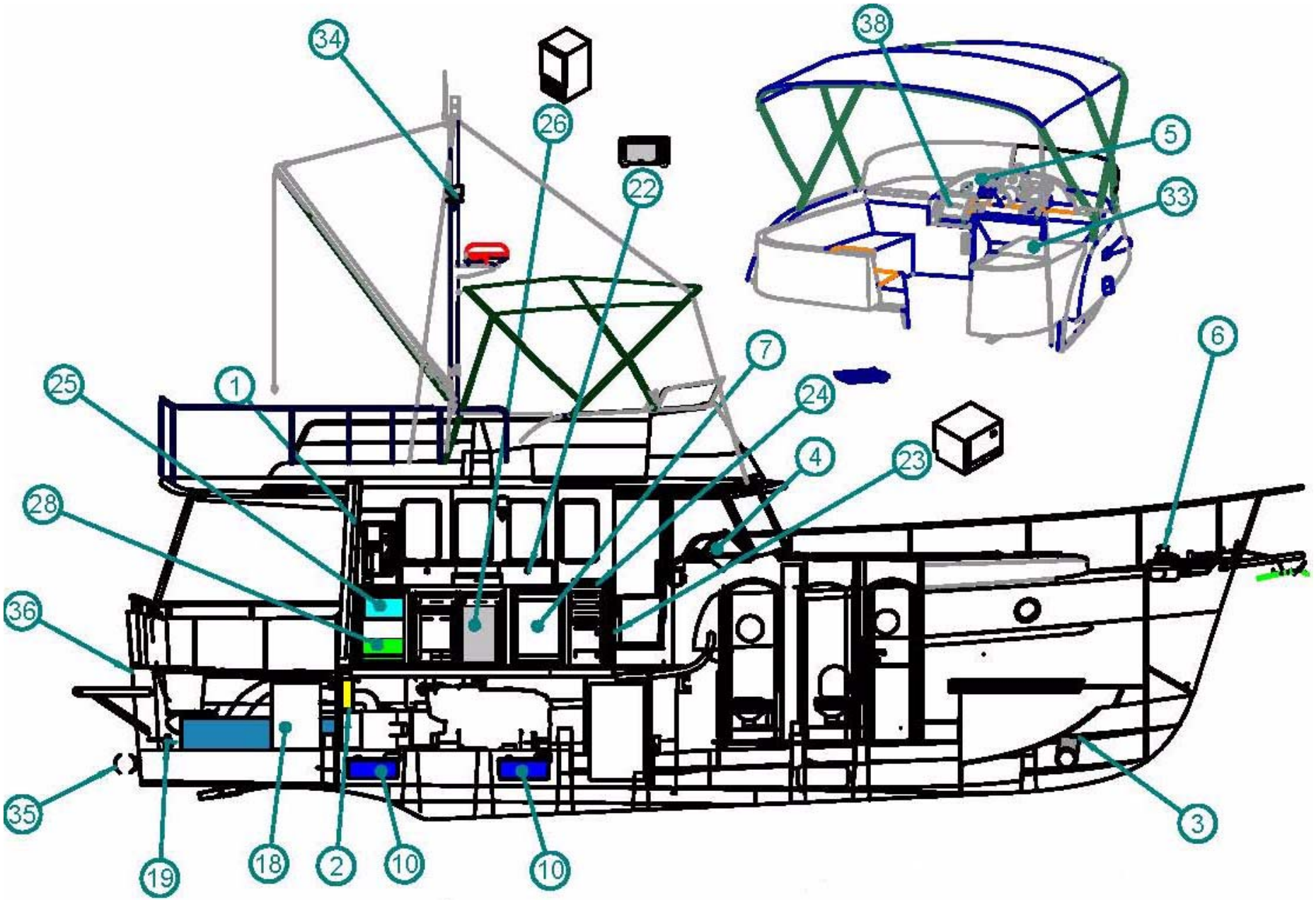
-Keep the batteries clean and dry in order to avoid premature wear.

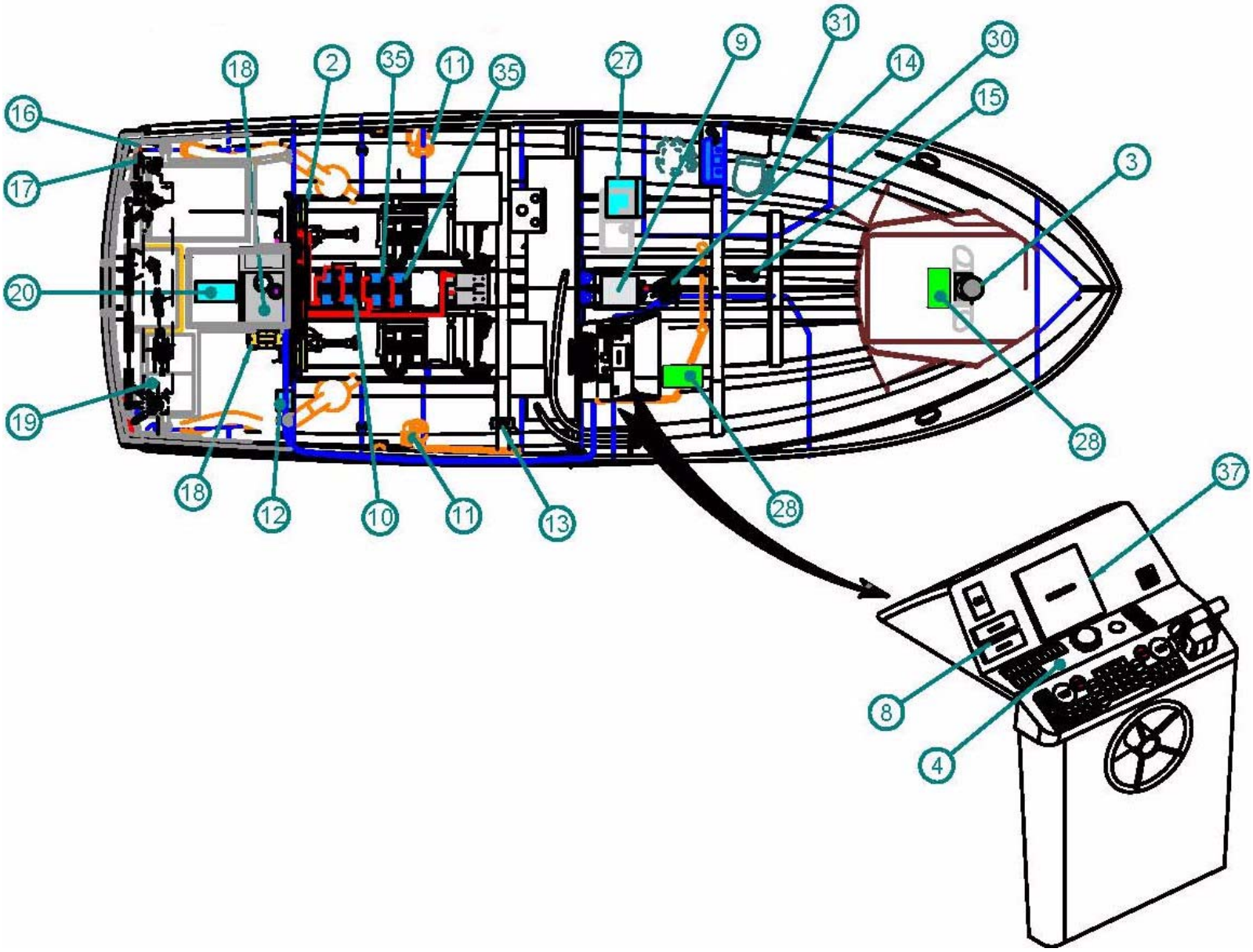
-Periodically check the electrolyte level. Add distilled water when needed.

-Tighten and maintain the terminal connectors by greasing them regularly.

-Disconnect the batteries during winter storage or long periods of inactivity.

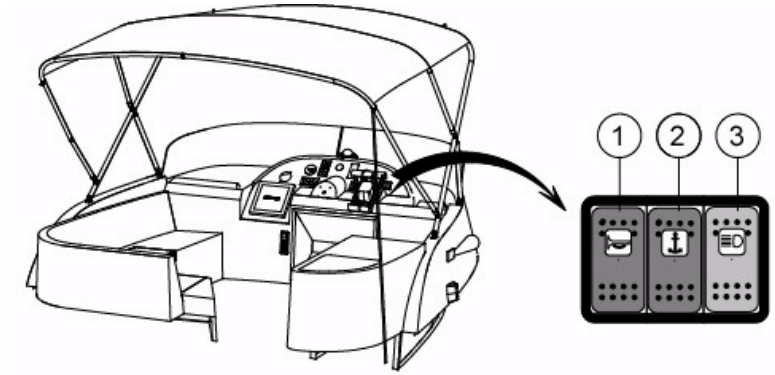
MAIN ELEMENTS SCHEMATIC DIAGRAM - ELECTRICAL CIRCUIT, 12 V




16
17
20
19
18
2
35
11
35
27
9
31
14
30
15
3
28
18
12
10
11
13
28
37
8
4

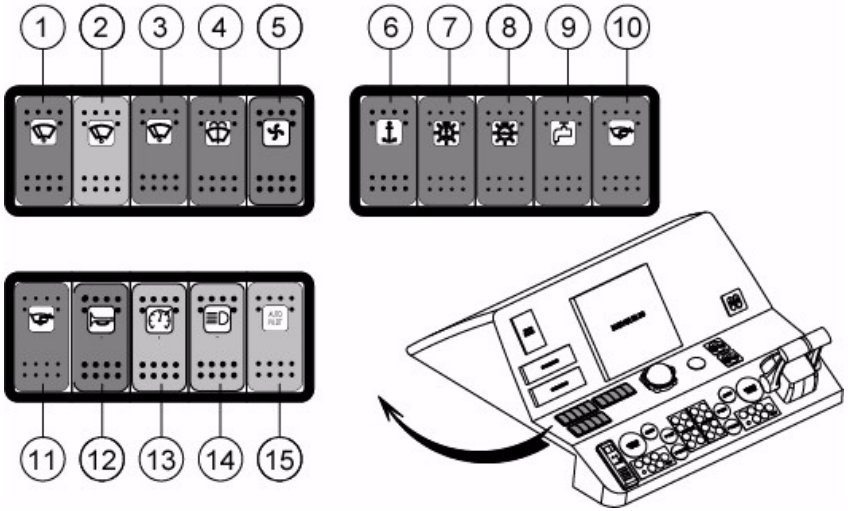
REF	Designation	REF	Designation
1	General electrical panel + Control of the battery breaker + Differential +	20	Water maker
2	Battery isolation switch set + Battery charger + Fuses		
3	Bow thruster	22	Microwave oven
4	Electrical panel - Inside wheelhouse	23	Microwave oven flush mounted
5	Electrical panel - Flying bridge	24	Hot plate
6	Electric windlass	25	Dishwasher
7	Fridge	26	Ice maker
8	Hifi	27	Washer
9	Water heater	28	Air conditioning
10	Batteries		
11	Engine compartment ventilator	30	Video Hifi - forward cabin
12	Aft bilge pump	31	Electric toilet
13	Demister		
14	Water unit + Windlass circuit breaker	33	Cool box Flying bridge
15	Forward bilge pump	34	Deck searchlight
16	Shore power socket 220V	35	Stern thruster
17	Shore power socket Generator	36	Hydraulic gangway
18	Generator	37	Electronic interior
19	Auto pilot	38	Electronic Flying bridge

CONTROL PANEL SKETCH DIAGRAM



Flying bridge

1. Switch of horn
2. Switch of windlass electrical
3. Switch Deck searchlight



Inside wheelhouse

1. Switch of port windscreen wiper
2. Switch - wiper Central
3. Switch of starboard windscreen wiper
4. Switch of windscreen washer
5. Switch of demister
6. Switch of windlass electrical
7. "Anchor light" switch
8. Switch - navigation lights
9. Switch - water unit
10. Switch of forward bilge pump
11. Switch of aft bilge pump
12. Switch of horn
13. "Navigation electronics" switch
14. Switch Deck searchlight
15. Switch Auto pilot

Wiper

Location

Filling Windscreen washer liquid: Cockpit locker

Mechanical demister

Location: Engine compartment Starboard

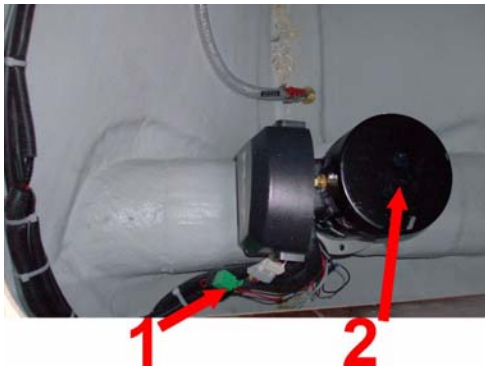
The demister works off the port engine cooling system. It only heats when the port engine is warm and running

Demister outlets on the windscreen

FLAPS

Location	Control Inside wheelhouse	Control Wheelhouse Flying bridge
		

BOW THRUSTER - LAYOUT OF COMPONENTS



1. Master operation relay
2. Bow-thruster motor

Nozzle

Fuse 400A - Engine compartment

Operation

Control Wheelhouse flying bridge

The thruster operates on the port engine battery set

Control Inside wheelhouse

Horn - Location

REVOLVING DECK SEARCHLIGHT

Location	The green light indicates that the control is under power
	

WARNING

-Refer to the apparatus instructions for use and maintenance.

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.

Engine battery chargers located on the electricity board in the engine compartment. Charger power 12V - 40A.

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

Battery set:

- Engine: 4 x 50A.
- Service: 2 x 140A.

The electricity onboard is 12V DC

The batteries supply power to all the functions on board.

The engines have their own battery.

Provide electricity to the system by turning on the positive and negative battery switches

Location: Engine compartment

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.

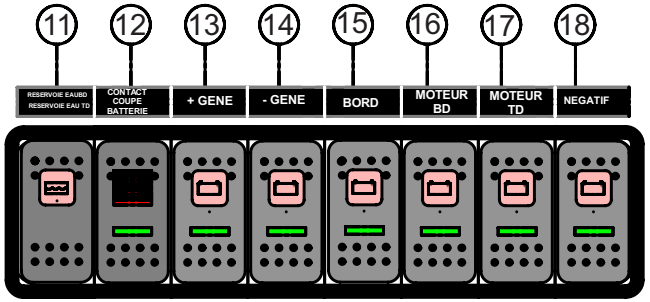
-Turn off the electrical system with the battery switches and circuit breakers before gaining access to the rear of the electrical panels.

-Check the level of maintainable lead batteries.

ADVICE - RECOMMENDATION

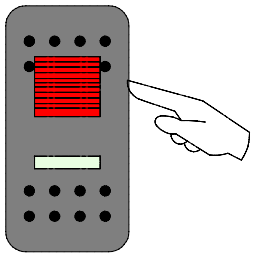
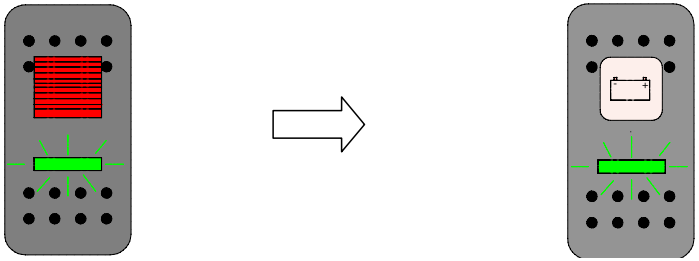
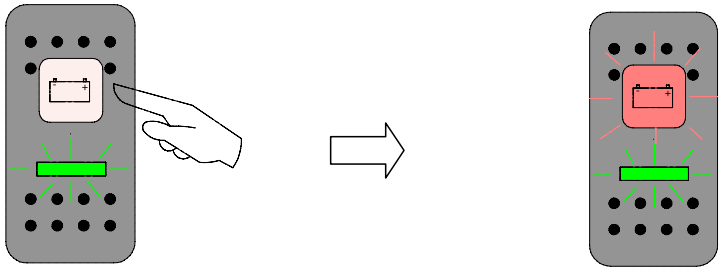
-It is recommended that you switch off all electrical devices before turning off the battery switches.

ELECTRIC BATTERY SWITCH CONTROLS

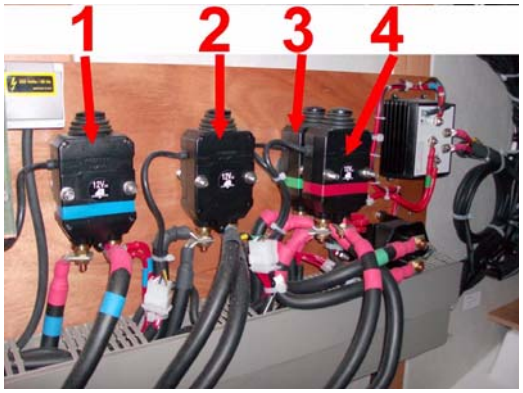


11. Water level measure
12. Locking key for battery switches (Safety)
13. Battery switch Positive - Generator
14. Battery switch Negative terminal - Generator
15. Battery switch Positive - Service
16. Battery switch Positive - Port engine
17. Battery switch Positive - Starboard engine
18. Battery switch Negative terminal - Common

BATTERY SWITCH OPERATION

Activate the locking switch **It enables inactivation of the battery switch controls**	**The green indicator lights up the switch and on all the battery switch control indicators** **This indicates that control of the battery breakers is enabled**	**Operate the push button** **The battery indicator light comes on (Red)** **The battery switch is turned on** **To open the battery switch push once more on the push-button**
		

ELECTRIC BATTERY SWITCH - LOCATION - ENGINE COMPARTMENT



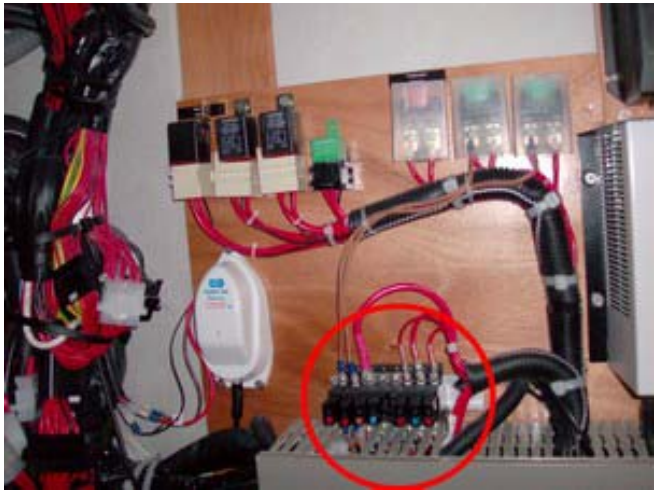
1. Battery switch - Positive Service
2. Battery switch - Negative terminal Common
3. Battery switch - Starboard engine
4. Battery switch - Port engine

WARNING

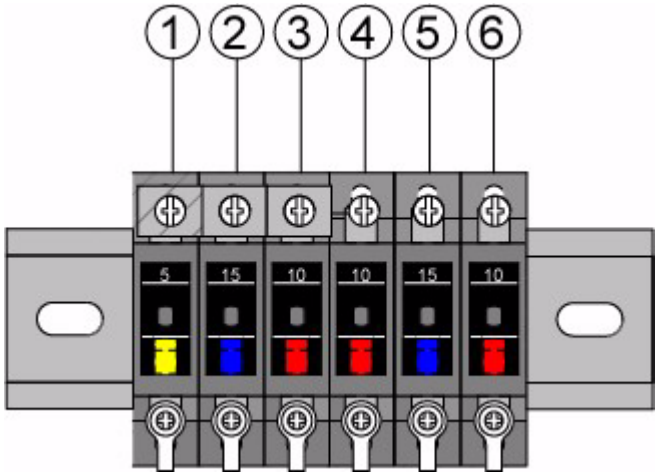
-Turn off the electric battery switches before leaving the vessel.

FUSES - LOCATION

Engine compartment

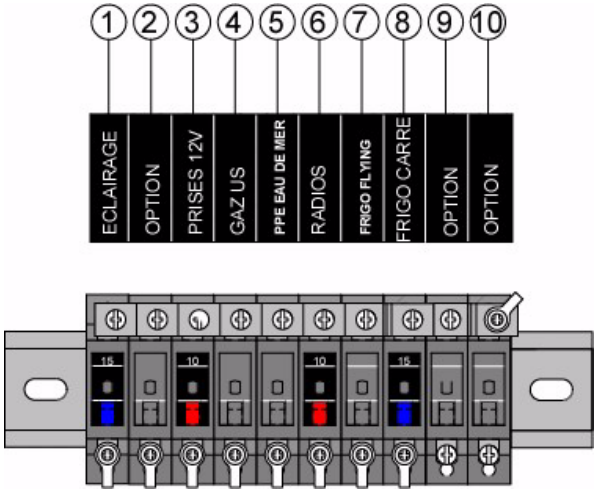


Circuit breaker strip - Engine compartment



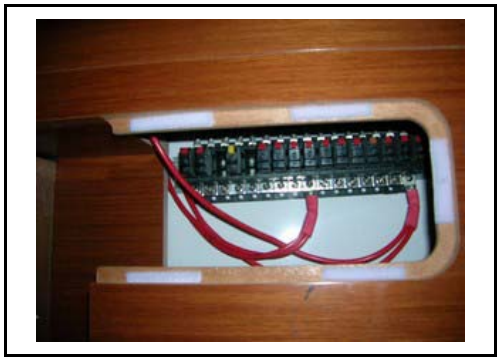
1. Breaker - Power supply - electrical panel (5A)
2. Breaker - Flying bridge power supply (15A)
3. Available (10A)
4. Breaker - Coupler control relay (10A)
5. Breaker - Horn (15A)
6. Breaker - Electric battery switch controls (10A)

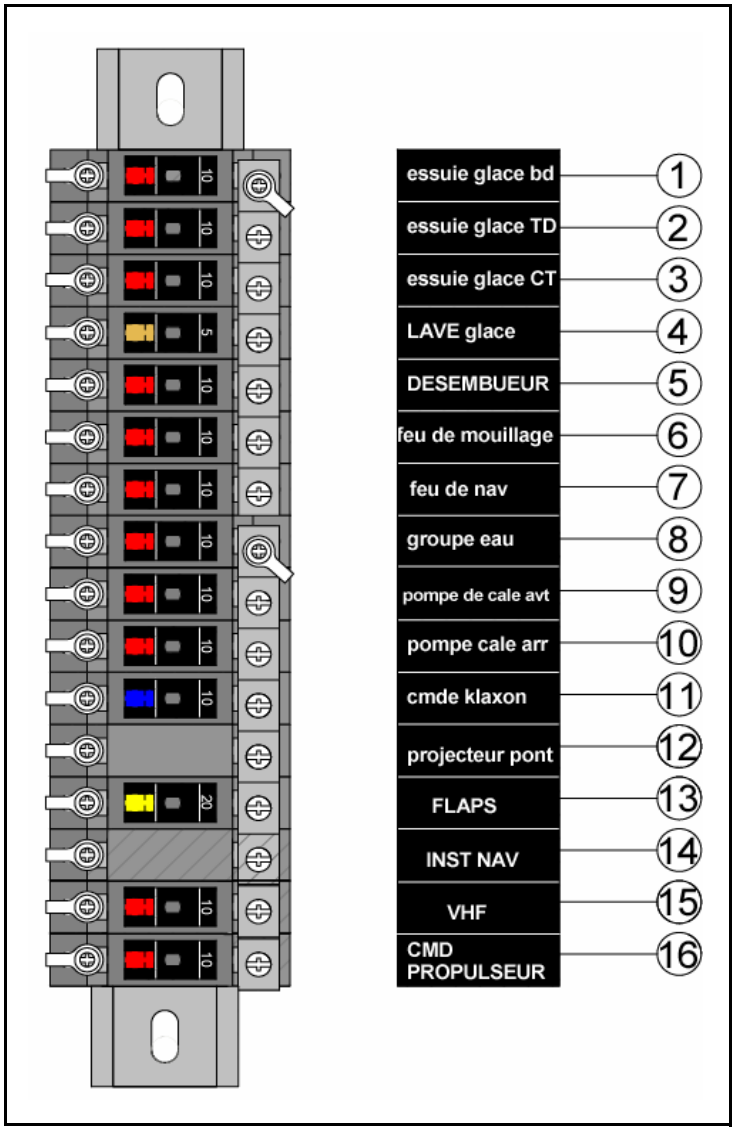
Saloon cupboard - Port aft



1. Breaker - Interior lighting (15A)
2. Available (10A)
3. Breaker - Socket 12V (10A)
4. Electromagnetic valve for gas US (10A)
5. Power for seawater pump sink pump (10A)
6. Breaker - Hifi (10A)
7. Supply Fridge flying (15A)
8. Breaker - Fridge Wheelhouse (15A)
9. Available (10A)
10. Available (10A)

INSIDE WHEELHOUSE



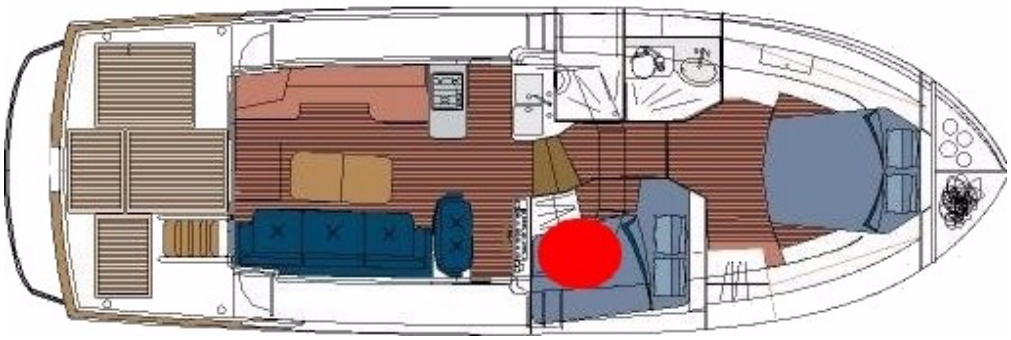


1. Breaker - Port windscreen wiper (10A)
2. Breaker - Starboard windscreen wiper (10A)
3. Breaker - Wiper Port side Central (10A)
4. Breaker - Windscreen washer (5A)
5. Breaker - Demister (10A)
6. Breaker - Mooring light (10A)
7. Breaker - Navigation lights (10A)
8. Breaker - Water unit / Pump Shower draining (10A)
9. Breaker - Forward bilge pump (10A)
10. Breaker - Aft bilge pump (10A)
11. Breaker - Horn + Electronic power relay (10A)
12. Breaker - Deck searchlight (10A)
13. Breaker - Flaps (20A)
14. Breaker - Electronic (15A)
15. Breaker - VHF Wheelhouse + Fly (10A)
16. Breaker - Bow thruster (10A)

WARNING

-Always replace a fuse with one of the same size.

Transducer location



View interior

View Outside

LEAD LINES

Do not store material on top of the sensors.

AUTO PILOT

The pilot consists of several elements listed as follows:

- Repeater on interior wheelhouse control panel.
- Compass in closet. A pictogram helps to locate it easily.
- Piston, hydraulic pump to either side of the rudder sector in the service compartment.
- For use and maintenance of the material consult the manufacturer instructions.

MAINTENANCE

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

Refer to chapter 10 "Launching" for the precautions to be taken concerning the sensors during hoisting

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.

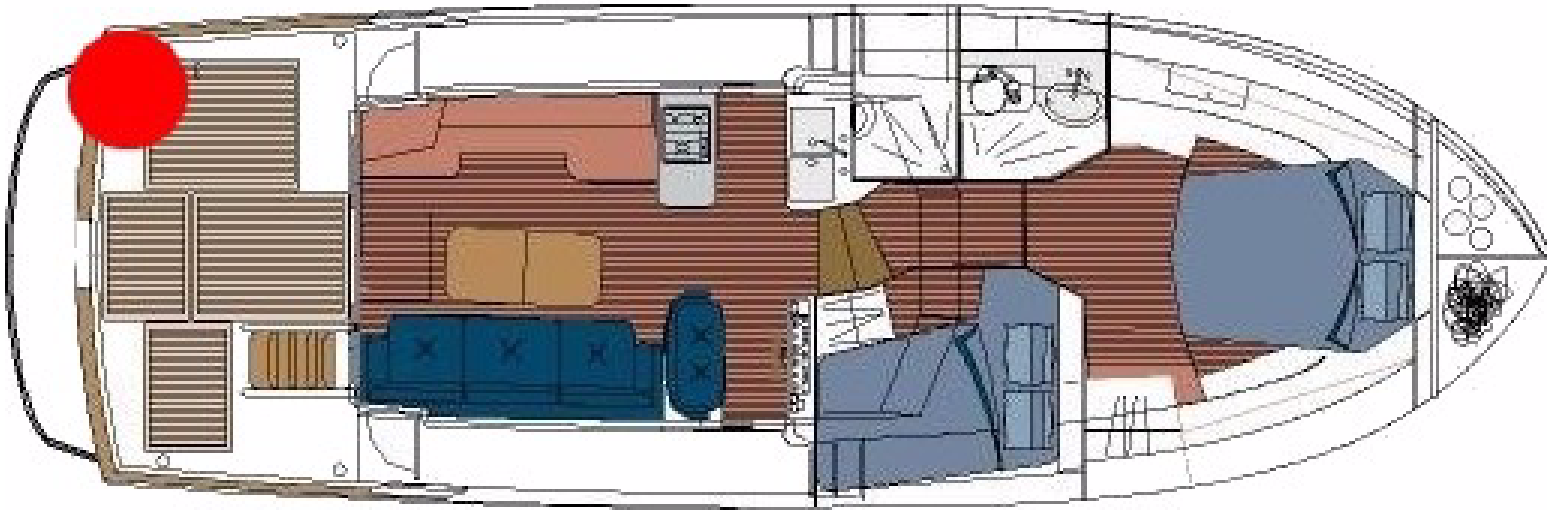
Advice: For further information refer to the appliance instructions.

ADVICE - RECOMMENDATION

-For best results, remove any metal compass.

-Do not store material close to the calculator and electrical connections.

SHORE POWER SOCKET



Breaker 30A 220V Cockpit locker Port side

Shore power socket 30A 220V

Differential - Port saloon

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.

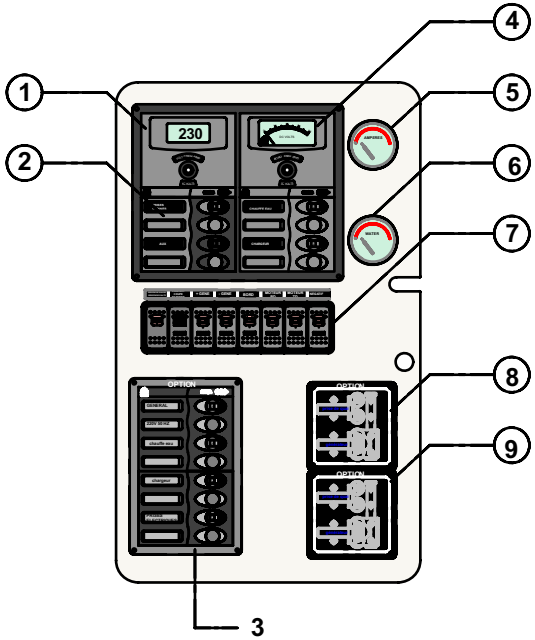
PRECAUTION

-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 equipement) by components exceeding the capacity (amperage) of the circuit (Watt for bulbs).

ADVICE - RECOMMENDATION

-In order to reduce the risks of electic 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.

ELECTRICAL PANEL 220V - SALOON CUPBOARD PORT SIDE



REF	Designation
1	Voltmeter + Ammeter 220V
2	Circuit breakers - 220V (Water, Battery charger, Water heater, Sockets 220V)
3	Panel additional
4	Voltmeter 12V
5	Ammeter 12V
6	Water gauge
7	Electric battery switch controls
8	Master switch Shore / Generator
9	Master switch Air conditioning

EQUIPMENT

GENERAL INTRODUCTION

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

MAINTENANCE

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

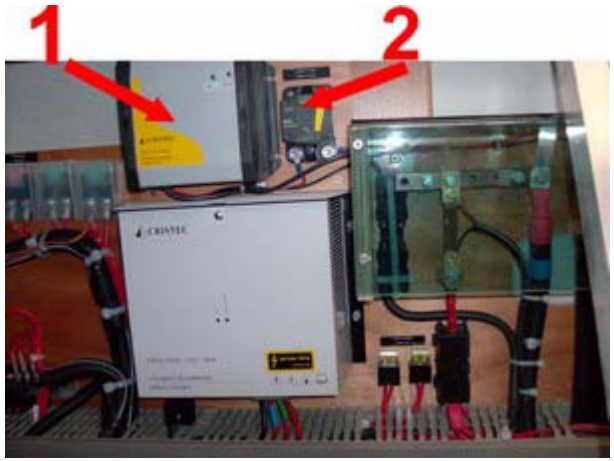
ADVICE - RECOMMENDATION

- 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 !

Location - Port saloon

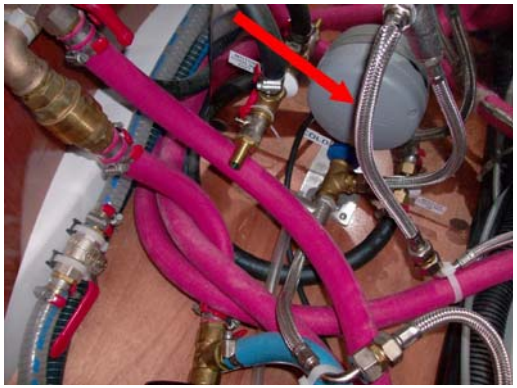
Operation

1. Inverter 12/220V
2. Breaker TV 30A



WATER HEATER 220 V 42 L

Location: Under the companionway



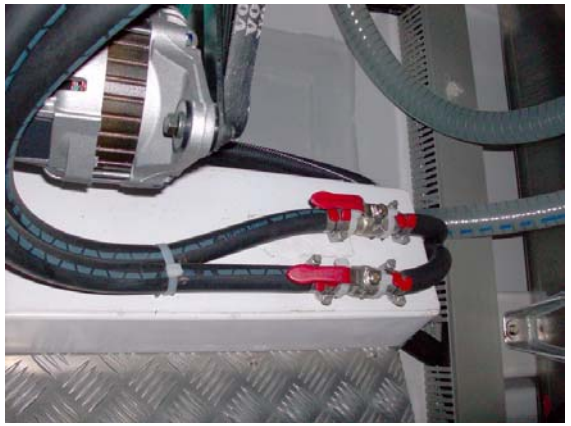
Operation

The water heater functions:

- On the starboard engine cooling system
- On the 220 V circuit House

220V socket

Engine supply valves/ Water heater



Engine

- General information
- Engine installation

9

GENERAL INFORMATION

TYPE OF MOTORISATION

Your boat is fitted with two in-board diesel engines.

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). On certain models there is a fitted extinguisher system which enables a fire in the engine compartment to be put out. Make sure you know where the activating mechanism is and how it works.

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 level of fuel is transmitted to the indicator on the wheelhouse thanks to the dipstick interior.

Diesel oil tanks capacity: 2 x 750 litre

Position of tanks: in front of each engine.

Each tank supplies an engine. A valve enables the two tanks to be interconnected.

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.).

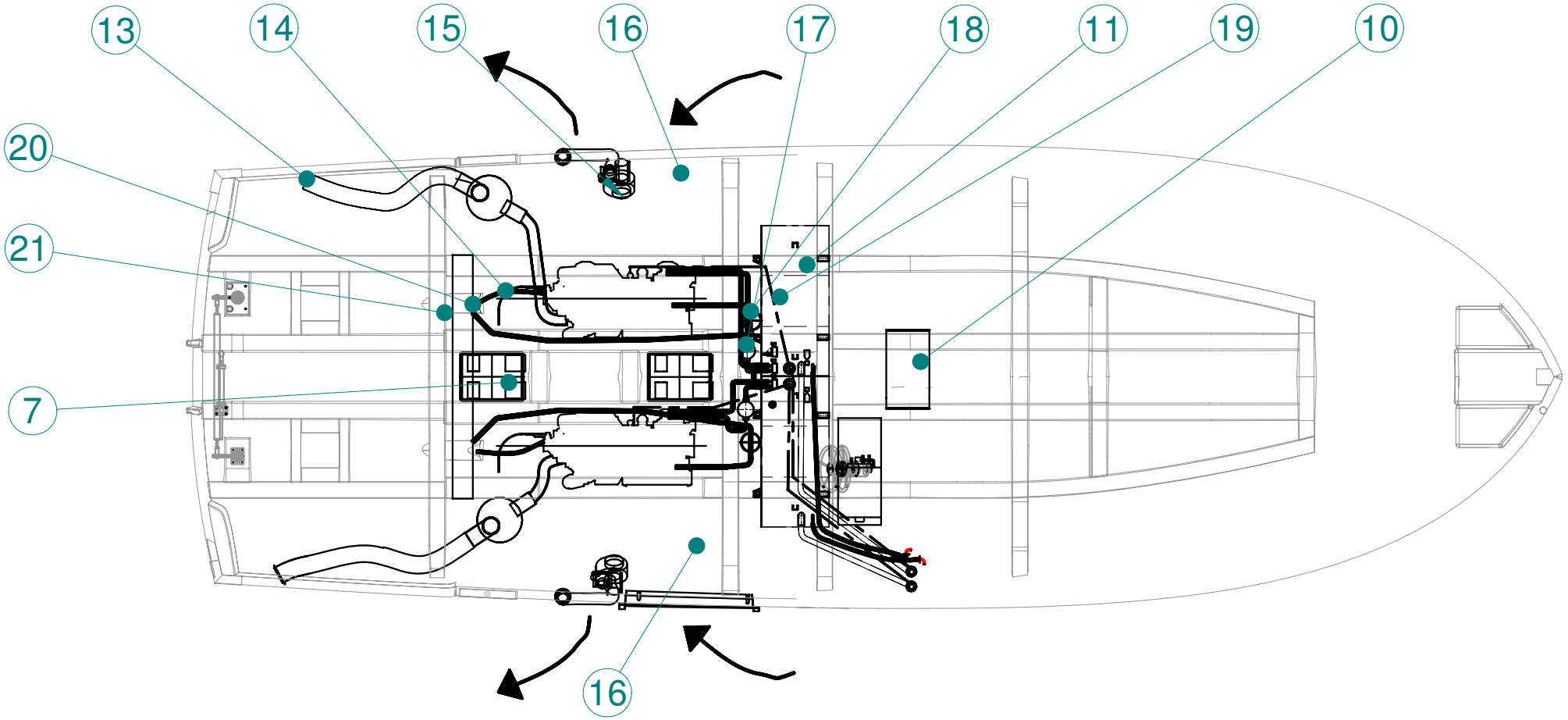
ADVICE - RECOMMENDATION

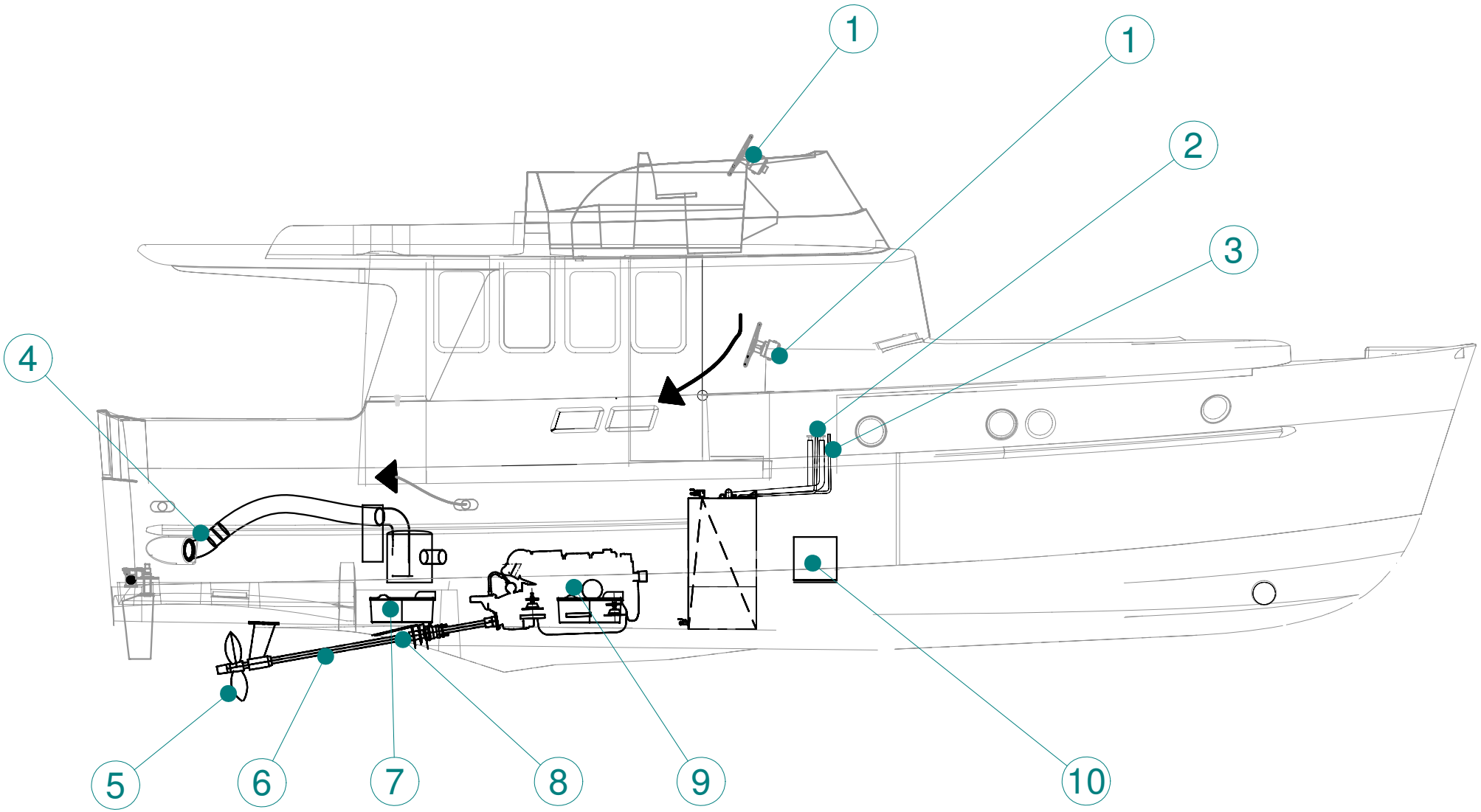
-Carefully read the engine instructions given with your boat.

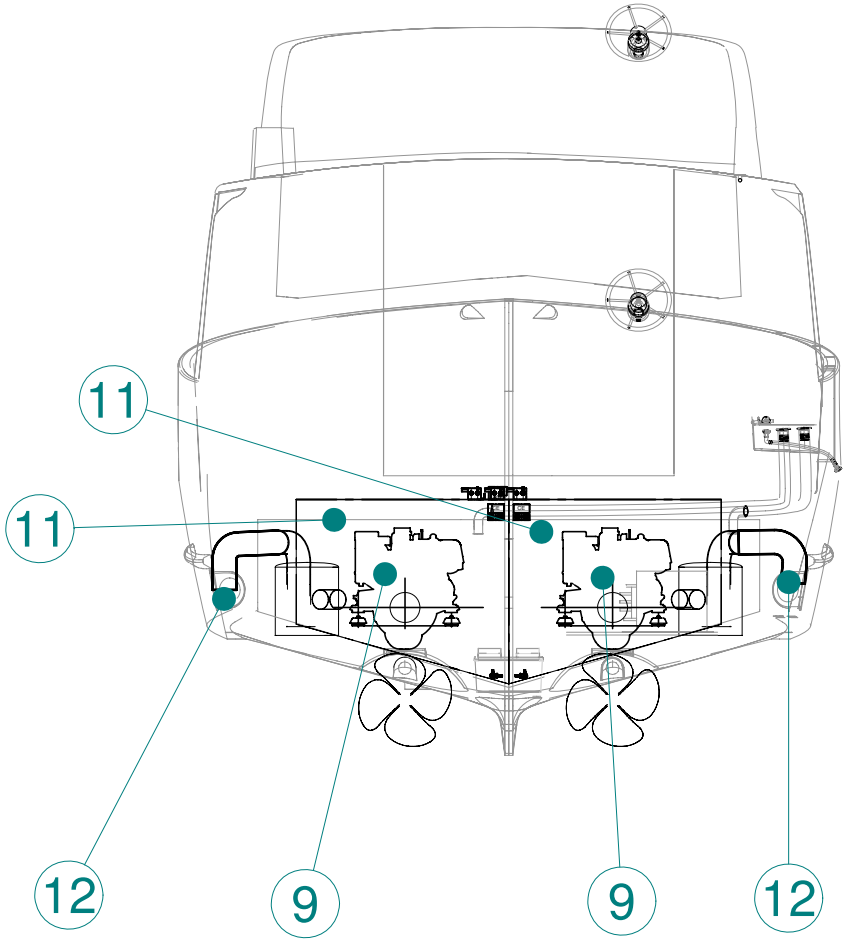
Fuel filler - Starboard gangway position

Tank interconnecting valve

ENGINE FITTING.

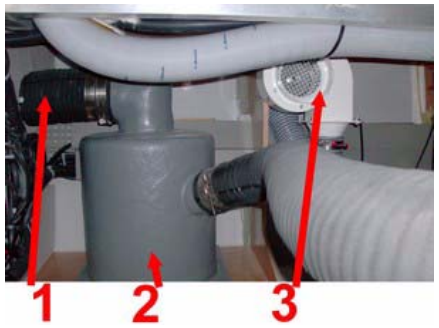


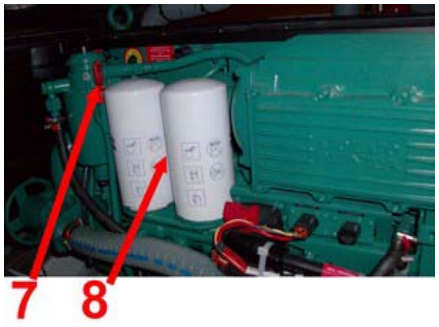

1
1
2
3
4
5
6
7
8
9
10

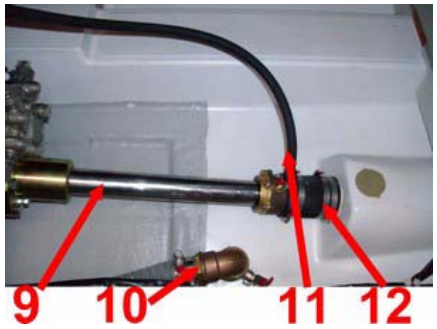


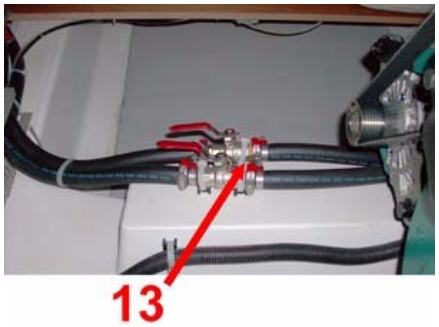
REF	Designation
1	Engine panel
2	Deck filler
3	Vents
4	Outlet
5	Propeller
6	Propeller shaft
7	Engine batteries 4 x 50A
8	Stern frame
9	Engine
10	Water heater
11	Fuel tank 2 x 750 l
12	Decompression
13	Outlet
14	Stern frame join
15	Ventilator
16	Extinguisher access hole
17	Diesel oil filter
18	Sea water filter
19	Earth
20	Seawater intake valve
21	Battery switch

MAIN COMPONENTS OF THE ENGINE









1. Outlet - Decompression
2. Underwater exhaust
3. Ventilator 12V
4. Sea water filter
5. Diesel oil decanter valve
6. Tank interconnecting valve
7. Engine oil gauge
8. Oil filters
9. Propeller shaft
10. Sea water inlet valve for engine
11. Stern frame join
12. Stuffing box
13. Supply valve Water heater / Engine

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

Access to the engine is gained through the engine compartment.

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 engine cooling system valve.
- Operate the battery switches and energise the electric system.

DANGER

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

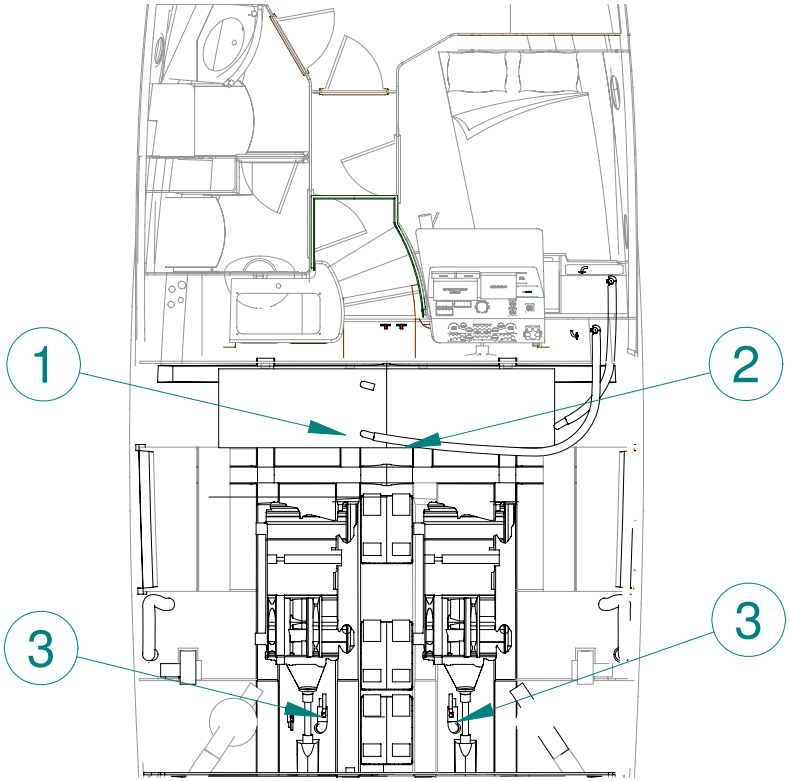
WARNING

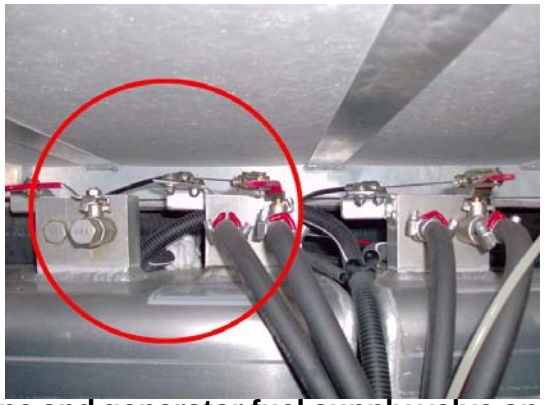
-Never switch off or de-energise the electric system when the engine is running.

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.

ENGINE SUPPLY VALVE AND SEAWATER INTAKE





Engine and generator fuel supply valve on port tank (Reference 1)

Engine supply valve on starboard tank (Reference 2)

Sea water inlet valve for engine (Reference 3)

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).

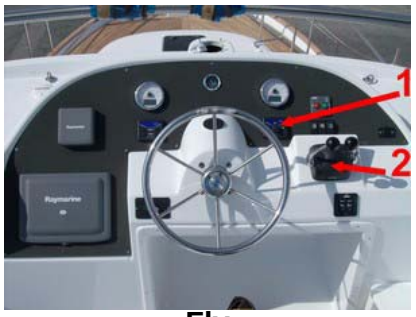
As for the procedures in case of fire, refer to Chapter 2.

DANGER

-Never obstruct access to the fuel valve.

HANDLE - ENGINE CONTROL

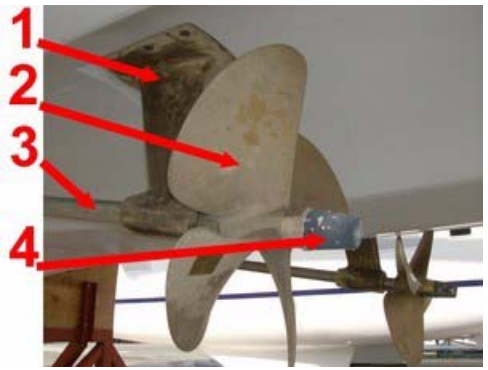
Inside wheelhouse



Fly

REF	Designation
1	Steering station selector
2	Engine control
3	Ignition key

DETAIL OF SHAFT LINE



REF	Designation
1	P bracket
2	Propeller
3	Propeller shaft
4	Anode

Coupling control for port and starboard battery sets in the event of starting trouble.

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

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.
- 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

-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.

ADVICE - RECOMMENDATION

-Check the whole propeller shaft several times a year.

-Change the anode if necessary.

-Check and change the cutlass bearing if necessary.

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 you 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.

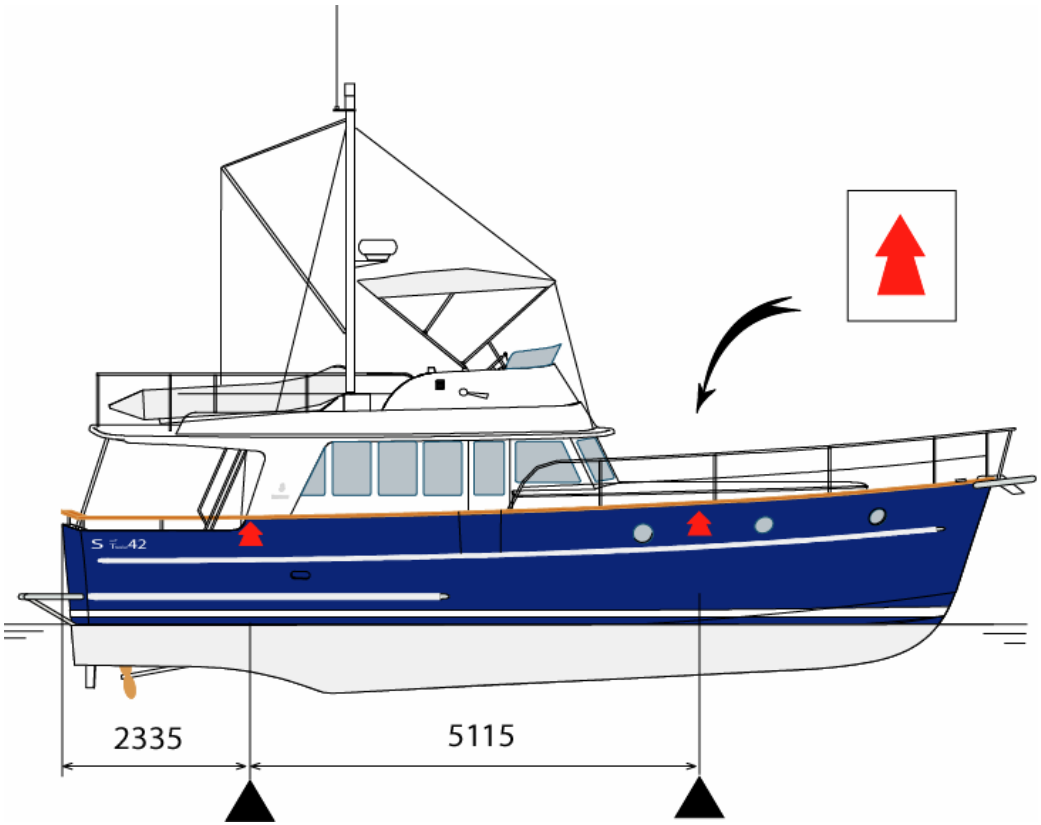
-Be careful with any possible risk of oil and fuel spillage.

Launching

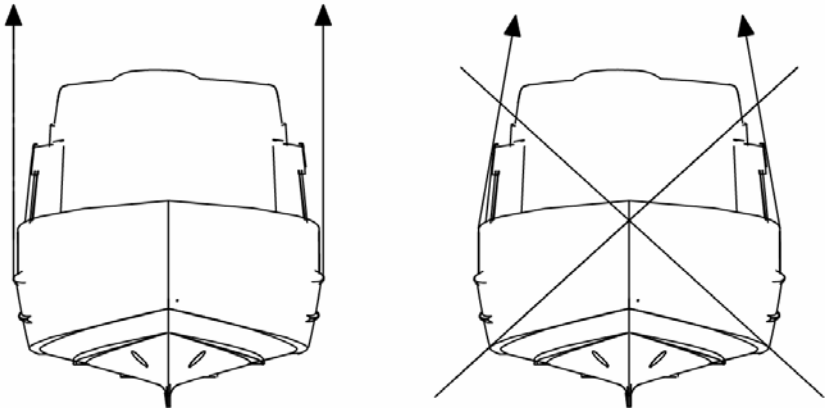
- Launching recommendations

10

POSITION OF HOISTING CRADLE AND STRAPS



Note: Measurements are expressed in mm.



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.

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 9 "Engine".

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.

Winter Storage

- Laying up
- Protection and maintenance

11

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.

Personal notes

Dealer stamp