BALI

CATAMARANS

OWNER'S MANUAL

IN ACCORDANCE WITH EUROPEAN DIRECTIVE 2013-53-UE

BALI 4.2

OPEN SPACE

DESIGN CATEGORY A

CATANA SAS - Zone Technique du Port - 66140 CANET EN ROUSSILLON (FRANCE)
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This document comprises 156 pages, numbered from 1 to 156 of which 81 pages are plans and diagrams.

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Your dealer

Name _____

Address _____

_____

is the representative of **CHANTIER CATANA SAS** and will assist you with everything you need to resolve any issues which might arise during the launch and the stepping of your mast, as well as technical checks for the commissioning and upkeep of your boat. He will assist you as necessary with the administrative process for registering your boat.

As soon as you have taken ownership of your boat, please familiarise yourself with this Owner's Manual, then sign and date notice of receipt below, and give (or send) this to your dealer.

Cut along the dotted line

Receipt of Owner's Manual

I, the undersigned:
Name _____
Address _____

_____

Owner of **BALI 4.2** n°_____

declare that I have received the Owner's Manual for the **BALI 4.2** sailboat, comprising:

- the declaration of safety conformity
- the certificate of conformity to the rule for production leisure craft.

Date: _____

Signature

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INTRODUCTION

Dear Sir/Madam,

Welcome aboard, and welcome to the happy family of **BALI 4.2** sailboat owners.

This manual has been designed to help you get the most enjoyment out of your boat in safety. It contains details of the boat, the equipment supplied or installed, and its systems, as well as information on their use. Please read it carefully and familiarise yourself with the boat before use.
This Owner's Manual is not an instruction course in safe navigation or seamanship. If this is your first boat or if you have changed to a type of boat with which you are not familiar, for your comfort and safety, make sure you acquire sufficient experience of the boat's handling and use before taking command.
Ensure that the wind and sea state which is forecast corresponds to the design category of your boat, and that both yourself and your crew are capable of handling the boat in these conditions.
Even though your boat is designed for it, the sea states and wind conditions which correspond to design Categories A, B and C vary from storm conditions for Category A to strong conditions for the top of Category C, subject to the dangers of abnormal waves or gusts, and as a result, dangerous conditions, in which only a fit, well-trained, experienced crew, sailing a well-maintained boat, can navigate safely.
This Owner's Manual does not form a detailed guide to maintenance or repair. In case of difficulty, please contact the manufacturers or their representative. If a service manual is supplied, please make use of it.
Always use the services of an experienced professional for maintenance, fitting accessories or making modifications. Modifications which might affect the safety characteristics of the boat must be evaluated, effected and documented by a competent person. The boat's manufacturers cannot be held responsible for any unapproved modifications.
In certain countries an operator's licence or authorisation are required, or there may be specific regulations in force.
Always properly maintain your boat, bearing in mind wear and tear which can result over time, or, as the case may be, excessive or inappropriate use.
Any type of boat, no matter how solidly built, may be severely damaged if used incorrectly. Such use is not compatible with safe navigation. Always adapt your course and boatspeed to the prevailing sea conditions.
If your boat is equipped with a liferaft, carefully read its user manual. The crew should have on board all the necessary safety equipment (lifejackets, harnesses, etc.) corresponding to the type of boat, to the weather conditions, etc. In certain countries such equipment is mandatory. The crew should be trained in the use of all the safety equipment and emergency manoeuvres (recovery of a man overboard, towing, etc.) Sailing schools and yacht clubs regularly organise training sessions.
It is recommended that all persons wear appropriate flotation aids (lifejackets, buoyancy aids, etc.) whenever they are on deck. Note that in some countries, it is obligatory to wear flotation aids which conform to the laws of that country.

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KEEP THIS MANUAL IN A SAFE PLACE AND IN THE EVENT OF YOUR SELLING THE BOAT, PLEASE PASS IT ON TO THE NEW OWNERS.

WARNING

Our boats are regularly upgraded as result of customer experience and research carried out by the shipyard. As a result, the specifications given in this Owner's Manual are not contractual and are subject to modification without notice and without obligation to update.

The aim of this manual is to cover a maximum of information. Therefore, it is possible that certain paragraphs or equipment described is not applicable to your boat. If in doubt, refer to the inventory supplied by your dealer when you ordered your boat.

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1. DESIGN CATEGORY OF THE BOAT

Your **BALI 4.2** is covered by the OCEAN design category (Category A).
In normal usage conditions, your boat is designed to sail in seas with a significant wave height exceeding 4 metres and in wind strengths of Beaufort Force 8 or higher, and withstand the most severe conditions.

This capacity is equally dependent on the competence of the crew, their physical ability, the upkeep of the boat and its equipment.

Take all necessary precautions before putting to sea.

CATANA SAS cannot guarantee perfect functioning of the vessel in exceptional sea conditions (violent storms, hurricanes, cyclones, waterspouts, etc.)

DESIGN CATEGORIES

Category A: Boats which are designed to sail in winds which may exceed Beaufort Force 8 and in seas with a significant wave height of 4m and above (see Note 1 below), and to a greater extent be self-sufficient. Abnormal conditions such as hurricanes are excluded. Such conditions which can be encountered on long passages, for example ocean crossings, or near coastlines where there is no protection from wind and waves for several hundred nautical miles.

Category B: Boats which are designed to sail in winds which do not exceed Beaufort Force 8 and in corresponding sea states: a significant wave height of less than or equal to 4m (see Note 1 below). Such conditions as may be encountered when sufficiently far offshore, or near coastlines where there is no protection from wind and waves for several dozen nautical miles. These conditions can also be encountered on inland seas of sufficient size to be capable of seeing such wave heights.

Category C: Boats which are designed to sail in winds which do not exceed Beaufort Force 6 and in corresponding sea states: a significant wave height of less than or equal to 2m (see Note 1 below). Such conditions as may be encountered on exposed inland waters, in estuaries and in coastal waters with moderate weather conditions.

Category D: Boats which are designed to sail in winds which do not exceed Beaufort Force 4 and in corresponding sea states (occasional waves with a maximum height of 0.5m). Such conditions as may be encountered sheltered inland waters, and in coastal waters in fine weather conditions.

NOTE 1: Significant wave height means the mean height of the highest third of the waves, which correspond approximately to the height of the wave as estimated by an experienced observer. Certain waves may have a height of double this value.

CATANA SAS has chosen the International Marine Certification Institute as the notified body to verify that your boat conforms to European Directive CE 2013/53, within the framework of design categories B + C.

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Identification

The Hull Identification Number is located on the starboard side of the transom. It is comprised of a series of letters and numbers beginning with **FR-CAT**….

1.1. Degrees of danger

CAUTION	**Indicates a reminder of safety practices or a concern applied directly to dangerous practices which could result in personal injury or damage to the boat and fittings.**
WARNING	**Indicates that a risk exists which could result in injury or death if appropriate precautions are not taken.**
DANGER	**Indicates the presence of an extreme intrinsic risk which would result in a high probability of death or serious injury if appropriate precautions are not taken.**

WARNING

RISK OF ELECTRIC SHOCK

RISK OF CAPSIZE

READ THE OWNER'S MANUAL

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2. TECHNICAL CHRACTERISTICS OF THE BOAT

2.1. General Specifications

Model:	**BALI 4.2**
Naval Architect:	Xavier Faÿ
CIN N°	See starboard transom
Hull length Lh:	12.45 m
Waterline length:	12.27 m
Maximum length Lmax:	12.84 m
Hull beam Bh:	7.07 m
Maximum beam Bmax:	7.07 m
Draft (at maximum load):	1.222 m
Air draft (in lightship condition):	18.64 m
Principal means of propulsion:	Sail
Mast length:	15.67 m
Light displacement Mlc:	11,925 kg (with 2 x 45HP)
Maximum laden displacement Mldc:	16,498 kg (in Cat A)
Mass of engines offered:	Yanmar 3YM30AE- 21.3 KW (30HP): 127 kg Yanmar 4JH45- 33.1 KW (45HP): 220 kg

Mainsail area (square top)	52 m² (54 m²)
Self-tacking solent area	38 m²
Code zero area	63 m²
Fresh water excluding water heater (approx.)	800 L
Diesel capacity (approx.)	2* 320 L
Holding tank (depending on options see plans)	2x 50 L
Engine batteries	130Ah x 2
Service batteries	130Ah x 2 +2 (pack)
Principal means of propulsion	Sail
Maximum permitted engine power	2 x 33.1Kw (45 HP)
Weight of liquids (water/diesel)	1,170 kg

Nb: the capacity of the various freshwater and diesel tanks is not generally completely usable as a result of the trim or loading of the vessel. For diesel, it is recommended to maintain a reserve of 20%.

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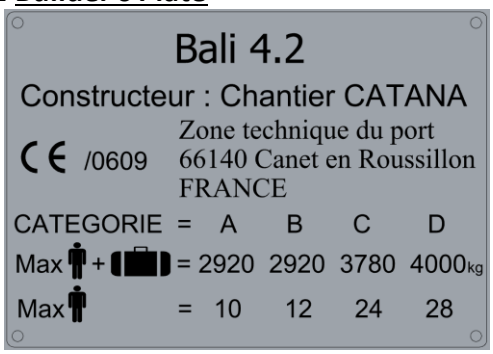
2.2 Builder's Plate



Part of the information is given on the builder's plate which is located in the cockpit. A full explanation of the information appears in the following section.

Design Category = **A** : Ocean (see Chapter 1)

Maximum number of persons = **10**

: Recommended by the builder when the boat is sailing in sea conditions corresponding to its design category.

WARNING

Do not exceed the maximum recommended number of persons. Whatever the number of persons on board, the total weight of persons and equipment must never exceed the maximum recommended load.

Max recommended load = 4,000 kg

: This includes the maximum number of persons with their equipment, their personal effects, any equipment not included in the lightship weight of the boat and any goods carried.
The maximum load indicated on the Builder's Plate does not include the contents of the tanks (fuel 507 kg and fresh water 800 kg) when they are full (1,307 kg total) giving a total maximum recommended load of 5,307 kg.

WARNING

When loading the boat, never exceed the maximum recommended load. Always load the boat with care and distribute the load in an appropriate manner so as to maintain the theoretical trim (approximately horizontal). The stability is affected by stowing heavy loads up high.

CE 0609 : CE marking indicating that the boat conforms to all the requirements of the Directive. This sequence of numbers is the code of the Certification Body. In this case, the IMCI (International Marine Certification Institute), see: Declaration of Conformity

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3. ELECTRICAL SYSTEMS

(Plan n°7)

3.1. Safety advice and use of the electrical system

WARNING

Incorrect use of the direct current or alternating current systems can result in a risk of fire or explosion.
Incorrect use of the alternating current system can result in the risk of electrocution.

Always:

- **Check the battery state and the charging system before putting to sea.**
- **Disconnect and remove the batteries when winterizing the boat.**
- **Maintain the voltage of the batteries at over 12V during the winter.**
- **Check the functioning of the navigation instruments.**
- **Always keep spare fuses on board for the power circuits.**
- **Check the functioning of the navigation lights before sailing at night.**
- **Have the electrical system checked at least every two years.**
- **Disconnect the vessel's electrical supply if the system is not in use.**
- **Connect any metallic covers of electrical equipment to the vessel's earthing system (green cable, or green with a yellow stripe).**
- **Use electrical equipment which is either double-insulated or has an earthing connection.**

Never:

- **Work on a live electrical installation.**
- **Modify an installation and the relevant wiring diagrams, unless this has been carried out by a qualified marine electrician.**
- **Change or modify the breaking capacity of the protective circuit breakers.**
- **Replace electrical apparatus or equipment with components which exceed the rated capacity without resizing the cabling and circuit breakers.**
- **Leave the vessel unattended when the electrical system is live, with the exception of an automatic bilge pump and fire or theft protection systems.**

The electrical circuit is protected by circuit breakers fitted in electrical boxes installed beneath the chart table (figure 1).
If a fuse or a circuit breaker continues to trip, call a specialist to determine the cause of the short-circuit.
Other equipment (interior lighting, comfort equipment, etc.) is protected by fuses under the chart table.
To change a fuse, switch off the electrical circuit using the battery master switch, remove the defective fuse using the appropriate tool, install a new fuse of the same type and the same amperage, and then switch the electrical circuit on again at the battery master switch.

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Figure 1

3.2. Installing new equipment

Since 1st January 1996, electrical equipment has been subject to the European Directive on “electromagnetic compatibility” (Ref 2014/30/EU). If any new equipment is to be installed, it must therefore conform to these standards and must be CE marked. The equipment must also be accompanied by a certificate of conformity and a user manual.
Only use electrical equipment which is double insulated or has an earth connection in the case of a 220V installation. When fitting such equipment, ensure you follow the installation instructions with respect to cable sizing and fuse protection.
To avoid any maintenance problems, make appropriate changes to the wiring diagram to show the modifications.

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Fuse box:

Access via the panel beneath the chart table (Stbd):

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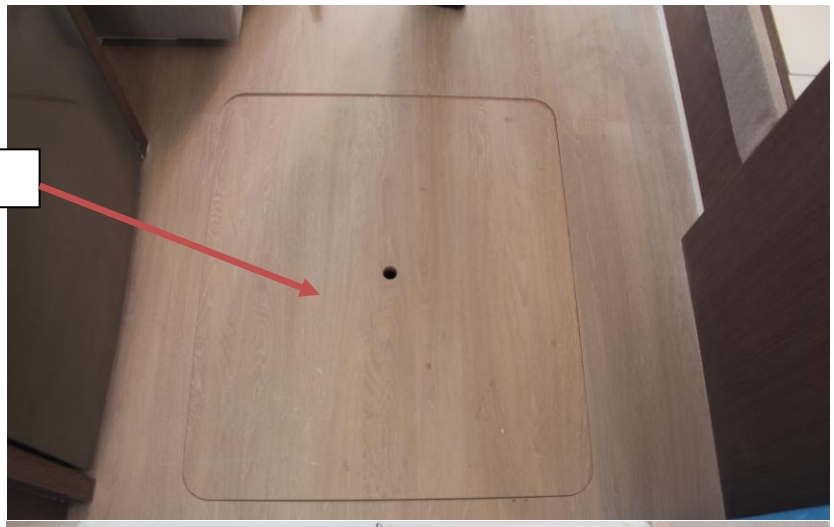
3.3 Batteries

All the batteries installed for engine starting or the domestic system are gel type batteries and as such do not require any specific maintenance; the only precaution to observe is to maintain a sufficient level of charge.
The battery bank is comprised of several 130 Ah batteries which form the service battery bank. This is located beneath the podium in the saloon. (Figure 2).
A removable panel in the floor provides access to these batteries.

Figure 2



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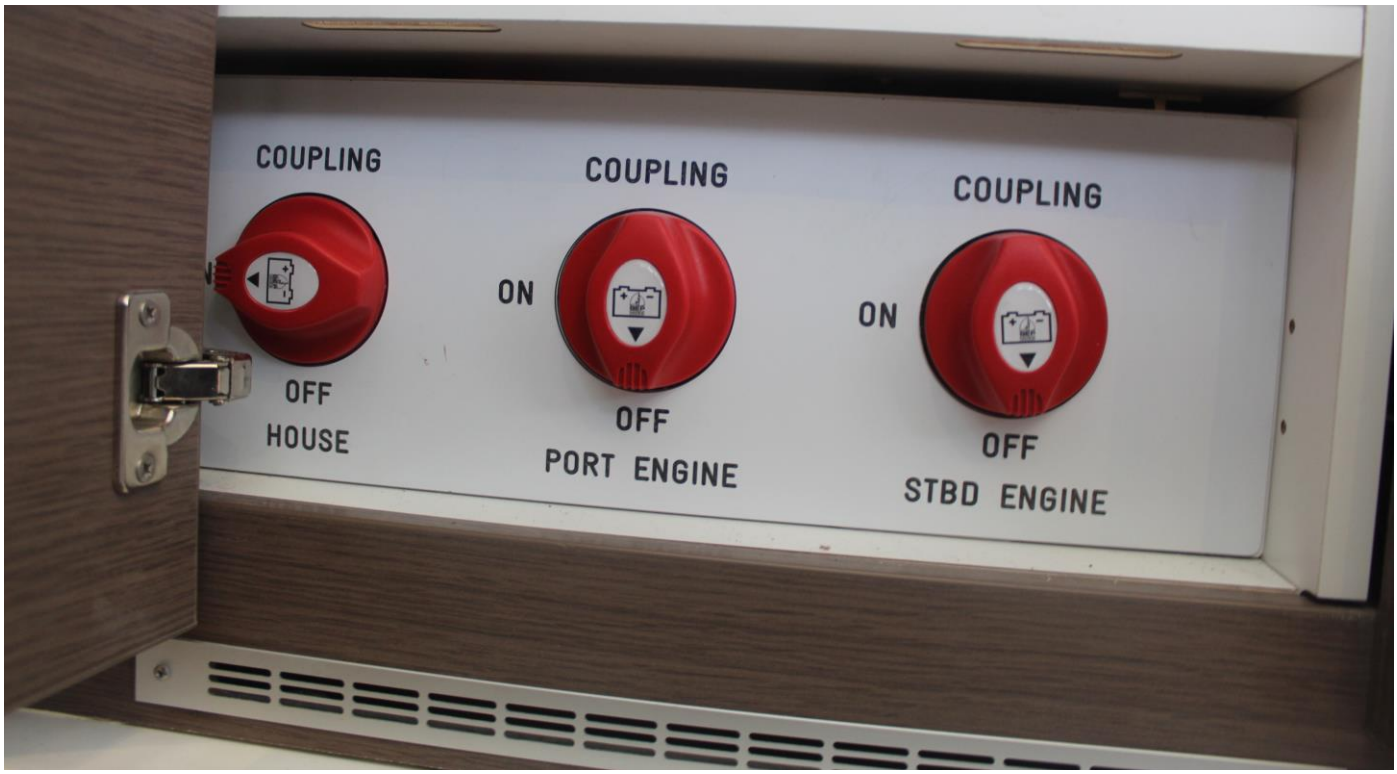
Each engine has its own 130 Ah starter battery.
The capacity of the batteries has been calculated to respond to the power requirements of the on-board accessories. To avoid any problems, the level of charge must be monitored and the batteries maintained.

If it is necessary to couple the batteries, access the selectors inside the lower starboard furniture unit and follow the instructions below:



To couple the service batteries and engine starter batteries, position the selectors to "COUPLING‘’

CAUTION
- **If you install any new electrical equipment, ensure that the overall electrical consumption of this equipment is compatible with your battery capacity.** - **Always disconnect the – (negative) terminal of a battery before disconnecting the + (positive) terminal.** - **Never allow the two terminals of a battery to be bridged by any conductive object (tools, etc.)**

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3.4 Windlass and electric winch

CAUTION
- **When using the windlass or electric winch it is essential that the engine is running and is at a slightly increased speed.** - **Always switch off the feed at the electrical panel when these are not in use**

Switching on the power to the windlass or electric winches is done at the electrical panel.
The windlass is operated via the corded remote control located beneath the chain locker lid or from the helm station (option).
The fuses and the relay for the windlass are located beneath the chart table (Figure 3).

Figure 3

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The electric winches have dedicated controls positioned next to them.

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3.5 Charging Systems

Your boat is fitted with several charging systems. When alongside a dock with a shore-power electricity supply, the service batteries are charged by a charger or a combined inverter/charger. At sea, the same system is used if your boat is equipped with a generator. If your engines are fitted with optional power alternators, they are connected to the domestic system. If your boat is fitted with solar panels, these produce energy which is stored by the service batteries.

CAUTION
- **Regularly check the alternator belt tension and the condition of the belts.** - **To maintain solar panel efficiency (if fitted), it is essential they are kept clean and are not in any shade.** - **You must not stand or walk on the solar panels**

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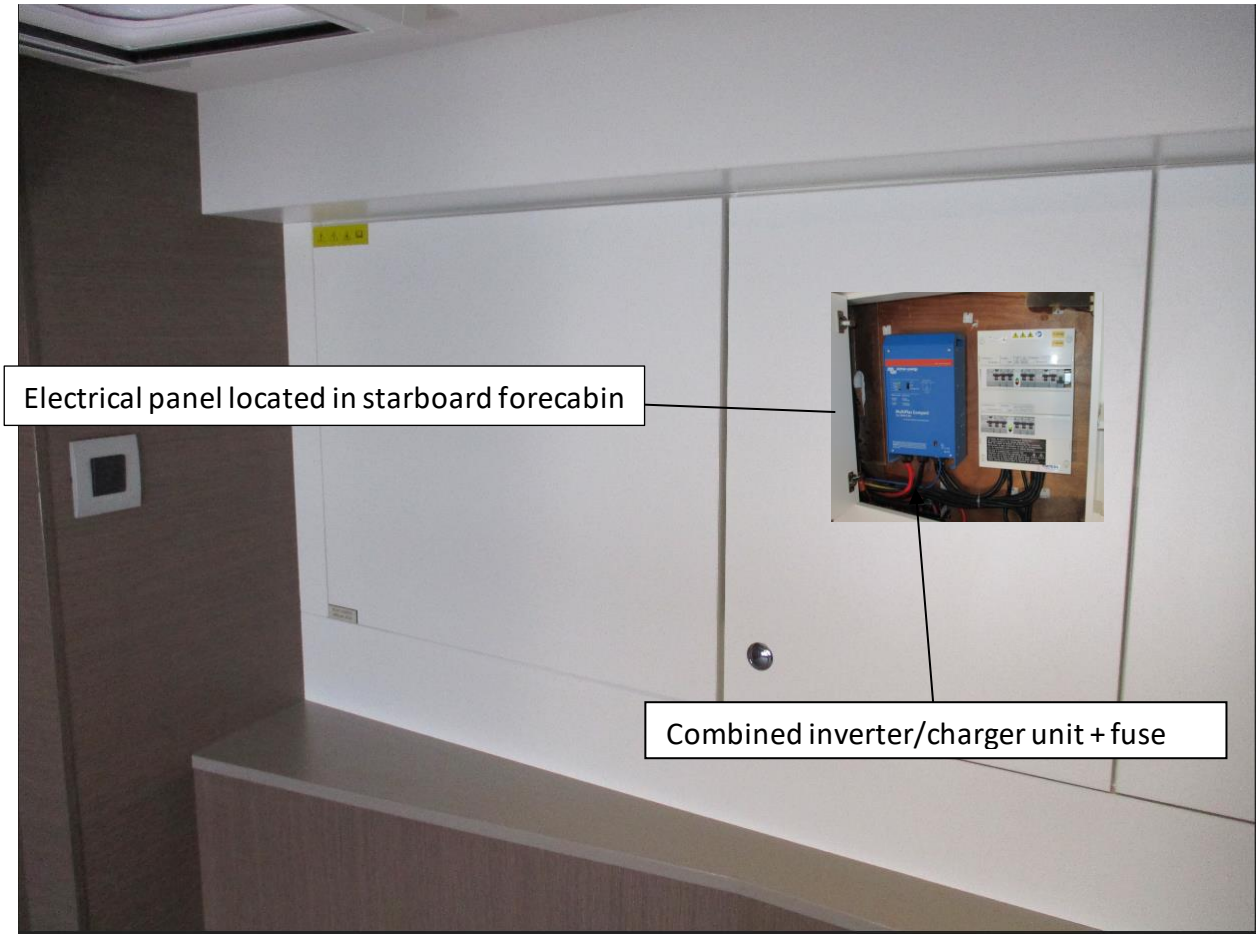

3.6 AC Installation (220/110 Volts - ISO 13297)

DANGER
The on-board AC installation is protected by a circuit breaker and is equipped with an RCD (residual current device). The wiring for any additional on-board AC accessories must be done by a professional, with new, appropriately sized circuit breakers.

If maintenance is being carried out with the boat out of the water, switch it to the ''ON'' position to ensure **earthing protection** via the shore power.
Location of the AC shore power circuit breaker: Starboard engine compartment.
If the vessel is equipped with a generator, an RCD will be installed near to it. The same applies if the vessel is fitted with a DC/AC inverter.

The circuit breakers for the various AC circuits are housed in electrical boxes near the chart table.

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Location of the AC shore power circuit breaker: Starboard engine compartment.

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CAUTION

When the vessel is alongside a quay and unattended, put the circuit breaker in the open position.

DANGER

If your boat is delivered without shore power lead and without a male shore power socket, the cable you use must be suitable for outdoor use. It must be of a suitable section for its length and for the rating of the main circuit breaker (See wiring diagram). The plug must be matched to the female socket on the quay (Check with a professional if necessary). It must correspond as closely as possible to type IP 67 / IEC529.

To minimize the risk of electric shock and fire:

- **Switch off the shore power on board before plugging in or unplugging the shore power cable.**
- **Plug in the shore power lead on the boat before plugging it in to the shore power socket on the quay.**
- **Unplug the shore power lead from the socket on the quay before unplugging it on board the boat.**
- **Ensure that you have closed the cover on the shore power socket on the quay.**

Never:

- **Swim near a boat connected to shore power: there is a risk of electrocution!**
- **Do not let the end of the shore power cable fall in the water.**
- **Do not modify the connections of the shore power cable: only use compatible plugs.**

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4. GAS INSTALLATION

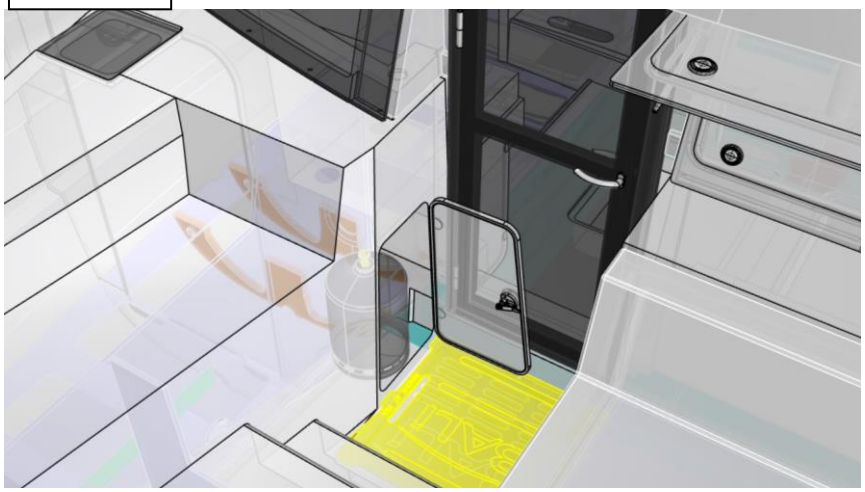
(Plan n°12)

4.1 Instructions for use

Your Bali 4.2 is fitted with a gas installation. Depending on the type of gas used on board (butane or propane), the pressure in the circuit will be between 28mbar and 37mbar. Consequently, before any work is carried out on the gas circuit or cooking appliances (hob, barbecue grill, etc.) the compatibility of the components: gas bottle, jets, regulator). The operating pressure will always be shown on the regulator.

- Before any use or maintenance, carefully read the instruction manual for the cooking appliance and the regulator.
- Ensure that the gas bottle and the regulator conform to the requirements of the appliance (Flow, pressure, gas type).
- Ensure that the gas bottle conforms to the regulations in force in the country where you are using it.
- Do not obstruct access to gas installation (gas bottle locker, shut-off valve).
- The gas bottle must always be placed in the waterproof and ventilated housing designed for this purpose (Figure 4). The same goes for spare or empty bottles. No other equipment should be stored in this area.
- A regulator with a pressure gauge is fitted to the bottle. When the gas tap is open, the pressure gauge will warn of any possible gas leak.

Figure 4



- Never leave the vessel unattended when gas appliances are operating.
- Close all the shut-off valves when there is no-one on board (shut-off valve, regulator tap), even when the bottle is believed to be empty.
- Never smoke when going inside the boat if it has been closed up. Make sure there is no smell of gas.
- If you can smell gas, close all the gas valves and taps including the cooker. Ventilate the boat and establish the cause of the leak before putting the gas system back into service.
- Do not use the cooker if there is likely to be heavy rolling or a continuous list.
- If the gas system does not include a valve, it is imperative that the bottle is equipped shut-off tap.
- Turn off all the taps of the LPG system and the tap on the bottle when the gas system is not in use. Turn off the taps every time before changing the bottle, and immediately in case of emergency.
- Ensure that the taps on the appliances are turned off before opening the tap on the bottle.
- Never use the gas bottle locker for storing any other equipment.

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WARNING

The gas system valves must be switched off immediately in case of emergency.

SAFETY PRECAUTIONS

Care must be taken to avoid any contact with naked flames or other heat sources.

WARNING

Equipment which has a naked flame consumes oxygen from within the cabin and produces waste products and gases which are emitted into the boat. Good ventilation is essential: open the dedicated vents or hatches when using gas appliances.
Never obstruct the ventilation openings and check that any smoke ducting functions correctly.

4.2 Checking the gas system

- The gas system must be the subject of periodic checks:
- Close all the taps on the cooker.
- Open the regulator tap.
- Check all the connections are sealed by using a leak detector or by applying soapy water.

WARNING

Do not modify the LPG system of the boat. Installation, modifications and maintenance must be carried out by a competent person. Have the system checked at regular intervals or at the intervals required by national regulations.
Never use the gas system in the event of a leak.

CAUTION

Do not use any solutions containing ammonia.
Never leave the vessel unattended when gas appliances are operating.
Do not smoke or use a naked flame when changing LPG gas bottles.

DANGER

Never use a naked flame to attempt to detect leaks.

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Any repairs or modifications to the gas system must be carried out by a qualified person.
Flexible hoses must be:

- Regularly checked, at least once a year,
- Replaced if the expiry date printed on the hose has passed,
- Replaced five years after the date of manufacture of the hose which may be marked on it,
- Replaced in the event of signs of wear or cracks.

Check the evacuation ducting at least once a year.
Replace in the event of wear or cracks.

4.3. Regulator pressure gauge:

The pressure gauge supplied with the regulator allows you to detect the slightest gas leak. If a gas leak is detected or suspected, immediately take the following measures:

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WARNING
In the event of a leak, immediately shut the main gas supply tap(s) off and contact a suitably qualified person to detect and repair the leak.

- Shut off the LPG gas supply at the main supply tap(s).
- Extinguish any naked flames and any other possible ignition sources (heating appliances, cooking appliances, pilot lights, etc.)
- Do not operate the electrical cut-off switch.
- Evacuate the area if possible.

WARNING
Do not use a gas system known to have had a leak before it has been inspected and repaired by a qualified competent person.

4.4. Changing the gas bottle

- Check that the taps on any bottles are shut off and disconnected. Keep any protective covers, caps or bungs in place. Stow spare bottles in ventilated areas on the deck or in lockers designed for this purpose, which are gas-tight and ventilated overboard.

DANGER
- **Shut off the taps on the cooker and the regulator.** - **Do not smoke or use a naked flame while the gas bottle is being changed.** - **Ensure that the taps on the appliance are switched off before opening the tap on the bottle.**

WARNING
With an LPG installation: **Close the valve on the empty bottle before disconnecting it and installing the new bottle.**

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5. INTERIOR LAYOUT

(Plan n°2)

The BALI 4.2 is available in a 3 or 4-cabin version. The layout plans are shown in Chapter 2 in the PLANS section of this manual.

6. BILGE PUMP AND PLUMBING SYSTEM

(Plan n°16 and n°18)

6.1. Characteristics of the bilge pump float system

Type of pump	Theoretical Flow
Manual bilge pump	38 L/45 strokes min
Electric bilge pump 12V	69 L/min
Engineroom bilge pump 12V	69 L/min

Carefully read the instruction and maintenance manual of the bilge pumps supplied with your boat.

The bilge pumps are activated automatically in the event of the water level being too high ; an alarm is shown on the electrical panel and the pump begins operating. Automatic mode can be activated from the electrical panel touchscreen.

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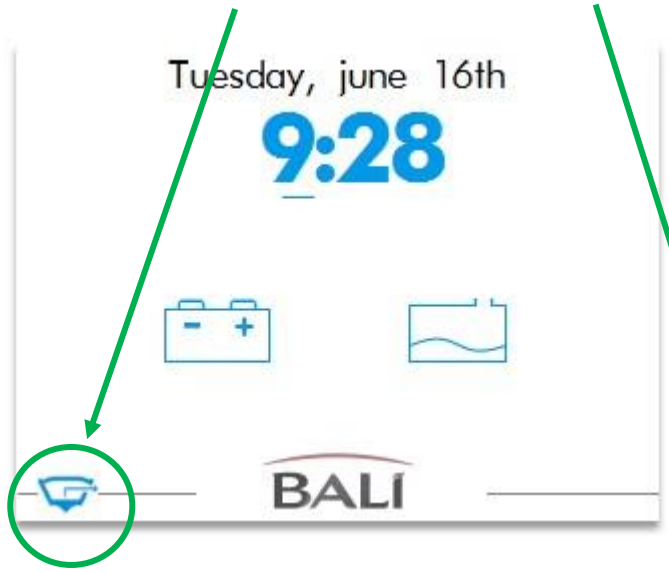
A small blue symbol will flash on the screen when a bilge pump is operating.



The pumps can be activated manually from the electrical panel.

CAUTION
The bilge pump system is designed to keep the water level in the bilge to a minimum; it is up to the crew to get the bilge completely dry manually. It is recommended to keep bilge water levels to a minimum.

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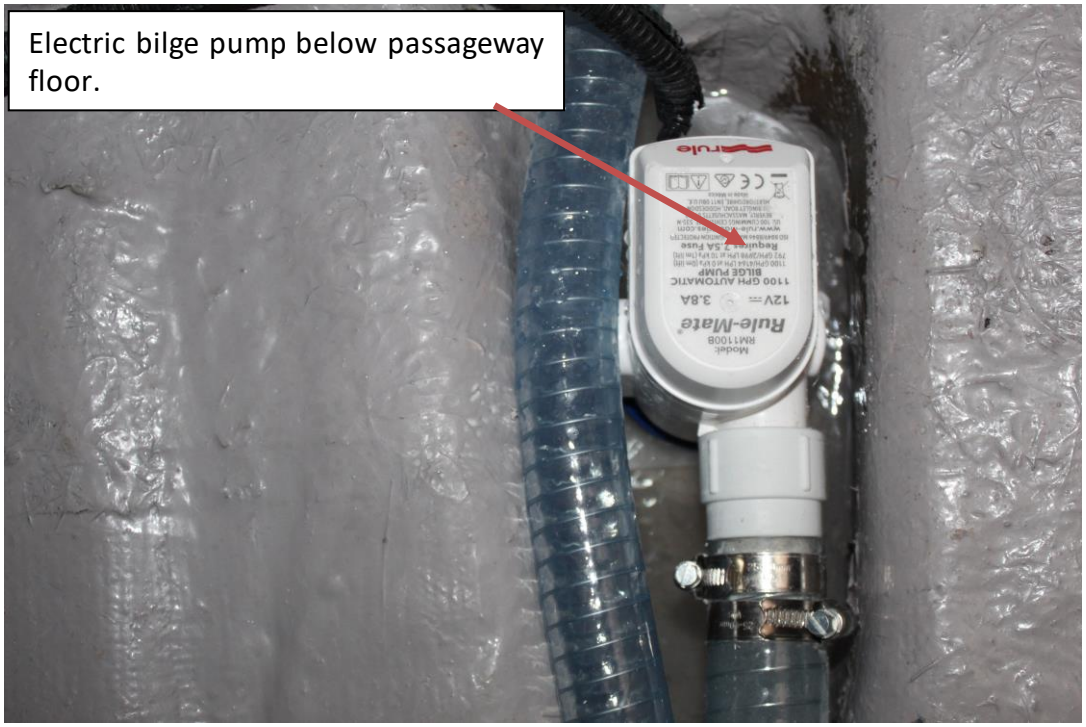

WARNING

The bilge pump system is not intended to control ingress of water in the event of a hull breach. It is designed to eject water originating from spray, leaking seacocks or any other moderate leak.

SAFETY PRECAUTIONS

- Ensure that the bilge pumps are in working order before putting to sea.
- Regularly clean the sump and bilge pump strainers from any debris which could obstruct the pumps.
- If the watertight bulkheads separating the forward and aft spaces are equipped with scupper valves, these must be kept shut under normal circumstances, and only opened to empty water in the main bilge.
- Make sure you know where to find the manual bilge pump and its handle.
- Make sure you know where to find the switch for the electric bilge pump on the electrical panel
- Check that the seacocks are in the open position.

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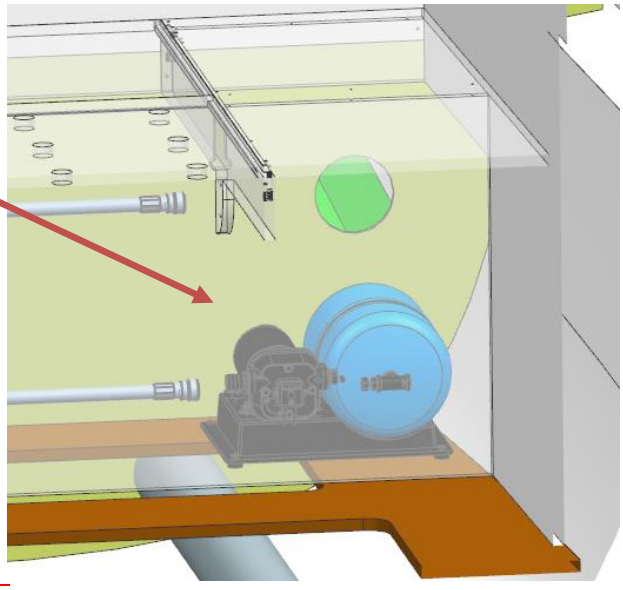
6.2. Fresh water pressure pumps with tank selector tap

The galley sink and the basins in the heads are supplied with fresh water by an electric pump (Figure 7).
A filter is fitted before the pump. This must be cleaned regularly.

Fresh water pump and filter are located beneath the port aft bunk.

Figure 7



It is possible to sterilise the tanks using clonazone tablets (on sale in pharmacies), added via the filler neck.
When winterizing the boat, fill the tanks completely so as to avoid the growth of algae or bacteria. If there is a risk of freezing, empty the tanks completely. Never use antifreeze.
Hot water is produced by a water heater connected to the engine cooling system and also the shore power system.
After emptying the water heater, ensure that the immersion element is immersed again prior to switching the power back on.

The water pump is equipped with a safety system which switches off the pump in the event of the level in the water tanks becoming too low. The pump can be reactivated using the control button on the touchscreen, but doing so will deactivate the safety shut-off system.

WARNING

Never activate the pump or switch on the water heater if the tanks are empty.
Refill the tanks.
If you fail to comply with this, the hot water immersion element and the pressure pump will be irreparably damaged.
It is imperative to keep the tanks empty in the event of the temperature going below freezing.

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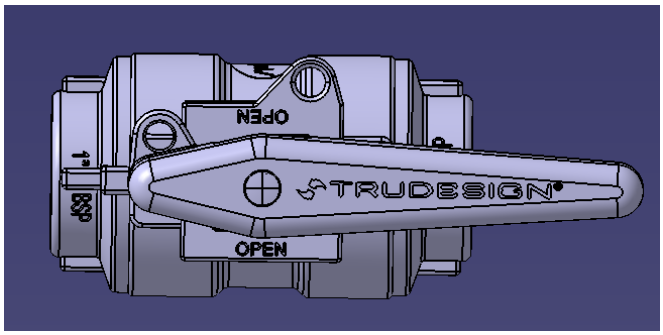
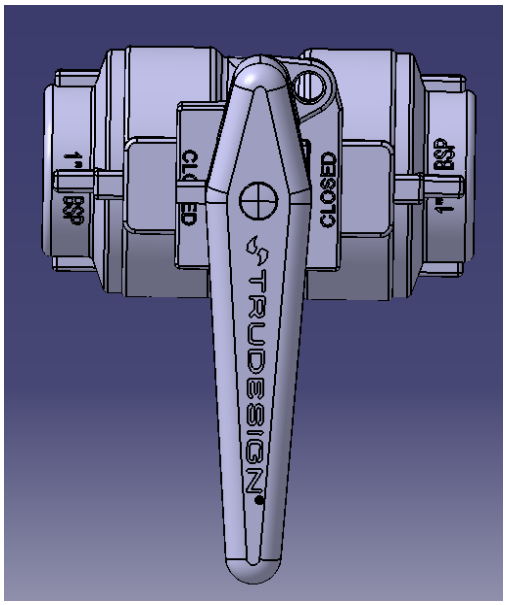
6.3. Seacocks

The valves are of the ¼ turn type:
- OPEN position: Lever in the same direction as the body of the valve
- CLOSED position: Lever perpendicular to the body of the valve.



OPEN POSITION



CLOSED/LOCKABLE POSITION

CAUTION

- Never try to tighten the seacock valve threads. In the event of a leak, consult a professional.
- In the event of bad weather conditions or when the boat is left unattended, close all the valves of the waste plumbing systems.
- Keep the valves closed when they are not in use.
-When winterizing the boat, clean and rinse the seacock through-hulls and valves. Check their watertightness, and re-tighten the hose clamps.
- In the event of finding serious corrosion, consult your dealer.

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6.4. Operating the sea toilets

- Open the seawater inlet valve.
- Open the outlet valve (if the boat does not have the Holding tank option).
- Move the lever to the “flush” position.
- Pump the handle.
- To empty the bowl and avoid any ingress of water when heeled, move the lever to the "dry bowl" position.
- Pump the handle until the bowl is dry.
- Repeat this operation of flushing / emptying the bowl as many times as necessary to ensure that the hoses are completely empty.
- When the toilets are not in use, put the lever in the “LOCK” position.
- **Close the valves after use, as the toilet is located below the waterline.**

Regularly change the seals and filter of the seatoilet.

6.5. Operation of the electric seatoilets

The control panel for flushing and emptying comprises two buttons.

- Check the level in the holding tank before using the seatoilets.
- Before using, ensure there is sufficient water in the bowl to avoid toilet paper becoming compacted in the bottom of the bowl.
- Use soft, good quality, domestic toilet paper but do not use more than is necessary.
- Next, empty the toilet until the bowl is dry. Always leave the bowl empty to minimize odours and spillage of water.

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Figure 1

OR

6.6. Holding tank

WARNING

- **-To prevent black water discharge, the valve must be kept closed.**
- **Emptying the tank may be effected either by discharge overboard (subject to local regulations) or by suction pump via the deck discharge outlet provided for this.**
- **Holding tanks must be rinsed out after each emptying to avoid any deposits building up in any areas or in the level gauge.**
- **Always check the level on the control screen on the electrical panel.**
- **Only use cleaning products, deodorisers or winterizing products designed specifically for use with holding tanks.**
- **In the event of freezing temperatures, the holding tanks must be kept empty.**
- **Respect the environment. Please do not discharge toilets or holding tanks close to the coast or in prohibited areas and make use of pumpout facilities in ports or marinas to empty your holding tanks before putting to sea.**
- **All the toilets are connected to a holding tank: ensure that the emptying valve is locked shut to avoid any inadvertent discharge during winterization.**

CAUTION

- Always ensure the holding tank discharge valve is closed, so as to avoid the possibility of inadvertent discharge.

- If local regulations require, it is possible to lock the discharge valves using a seal or a padlock.

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6.7. Sugar-scoop shower

The shower on the aft steps comprises both a hot and a cold-water circuit. It is located on the port transom.

7. FLOODING

Risk of the vessel flooding:

- Keep the hatches, windows, removable panels, doors, ventilation panels or openings closed when it is appropriate, for example in severe weather conditions or sailing at high speeds.
- Never drill or pierce any buoyancy tanks.
- Ensure that hatches, deck hatch covers or any other openings which could lead to flooding are closed before each time you put to sea.
- When under sail, close all the valves with the exception of the engine seawater cooling intake.

Periodically check:

- The watertightness of the through-hulls, seacock valves and pipework.
- That the cockpit drains are clear.
- The saildrive gasket joint must be replaced according to the engine manufacturer's schedule.

WARNING
The hatch covers in the sugar scoops must be locked shut before every time you put to sea. This is particularly important, as the engine compartments present a significant risk for flooding.

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8. FIRE PROTECTION

(Plan n°14)

8.1. Installation

- Fire extinguishers are subject to national regulations in different countries, and for this reason, your boat is supplied without any portable extinguishers.
- We advise that you equip your boat with fire extinguishers conforming to the ISO 9094 (2015) standard.

  a) Minimum capacity per extinguisher: 5A/34B
  b) Combined minimum capacity of extinguishers: 10A/68B

- When the boat is in service, it must be equipped as described. See plan N° 14.

WARNING

- Carbon dioxide fire extinguishers must only be placed in living areas where flammable liquids are present (eg. in the galley) or which contain live electrical equipment.
- There should be only one CO_2 extinguisher per risk zone, and its maximum capacity must not exceed 2 kg.
- Only compatible replacement parts must be used for the fire-fighting systems. They must conform to the same standards and be technically equivalent.
- If a CO_2 extinguisher is installed, the following information should be placed close by: "This fire extinguisher contains CO_2 - It is to be used only to fight fires of electrical origin or galley fires. To avoid danger of asphyxiation after discharging the extinguisher, immediately leave the area, returning only after it has been ventilated."
- After a fire has been extinguished, do not open the engine compartment immediately, so as to avoid release of any toxic fumes or anything which may still be alight (oil, for example).

WARNING

- **Your Bali 4.2 is fitted with fire detectors. Refer to the user manual supplied with the detectors for information concerning their operation and maintenance.**

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8.2. Safety advice

CAUTION

It is the responsibility of the owner/skipper:

- **To ensure that all fire-fighting equipment conforms to the requirements of the boat builder and to the national regulations in your country.**
- **To replace any portable fire extinguishers which have been discharged or which are damaged in any way, with extinguishing apparatus which has a capacity equal to or superior to the previous ones, and to refill or replace fire extinguishing systems if they are damaged or have been discharged.**
- **To provide at least one fire bucket fitted with a lanyard and located in an immediately accessible area.**
- **To ensure that all fire-fighting equipment is immediately accessible when the boat is occupied.**
- **To advise members of the crew:**
  - **The location and operation of fire-fighting equipment**
  - **Location of the fire extinguisher orifice for the engine compartment (located in the riser of the sugarscoop steps).**
  - **The location of evacuation and escape routes.**

Never:

- **Obstruct routes to emergency exits (deck hatches).**
- **Obstruct safety system controls (gas valves, fuel taps, electrical breakers).**
- **Obstruct lockers containing fire extinguishers.**
- **Leave the vessel unattended with the cooker or heater left on.**
- **Use a gas lamp inside the vessel.**
- **Refill a fuel tank or change a gas bottle when the engine, cooker or heating system are in use.**
- **Smoke when handling fuel or gas.**
- **Hang curtains near to the cooker or other appliance with an open flame.**
- **Modify any of the vessel's installations (especially electrical, fuel or gas installations) or allow any non-qualified person to modify such installations.**
- **Store any combustible items in the engine compartment.**

Always keep bilges clean and ensure there is no fuel vapour or gas present.

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CAUTION

If an outboard motor is to be stowed on board, this must be on the (optional) bracket provided for this purpose.
If there is a fuel tank for the dinghy outboard motor, this may be stowed in the aft locker.
Never:

- **Store fuel in spaces not intended for this purpose.**
- **Store flammable materials in unventilated spaces and spaces not intended for this purpose.**
- **Obstruct ventilation orifices (vents).**

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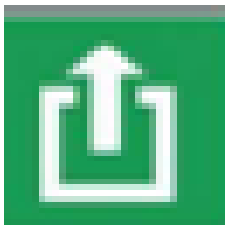
8.3. WARNING Notices for the attention of boat users

- Regularly check that the bilges are clean, that there are no fuel or gas vapours or fuel leaks.
- In the event of needing to replace any elements of the fire-fighting equipment, only use appropriate products, which meet the same specifications, and have equivalent technical capacities and fire-resistant qualities.
- Do not hang curtains or other materials above or close to cooking appliances or other apparatus with a naked flame.
- Do not store any flammable materials in the engine compartment. If any non-flammable materials are stored in the engine compartment, ensure that there is no risk of them falling onto the machinery, nor must they obstruct the engine compartment access or exit.

Exits other than doors or main hatches fitted with permanently fixed ladders must be identified using the following symbol:



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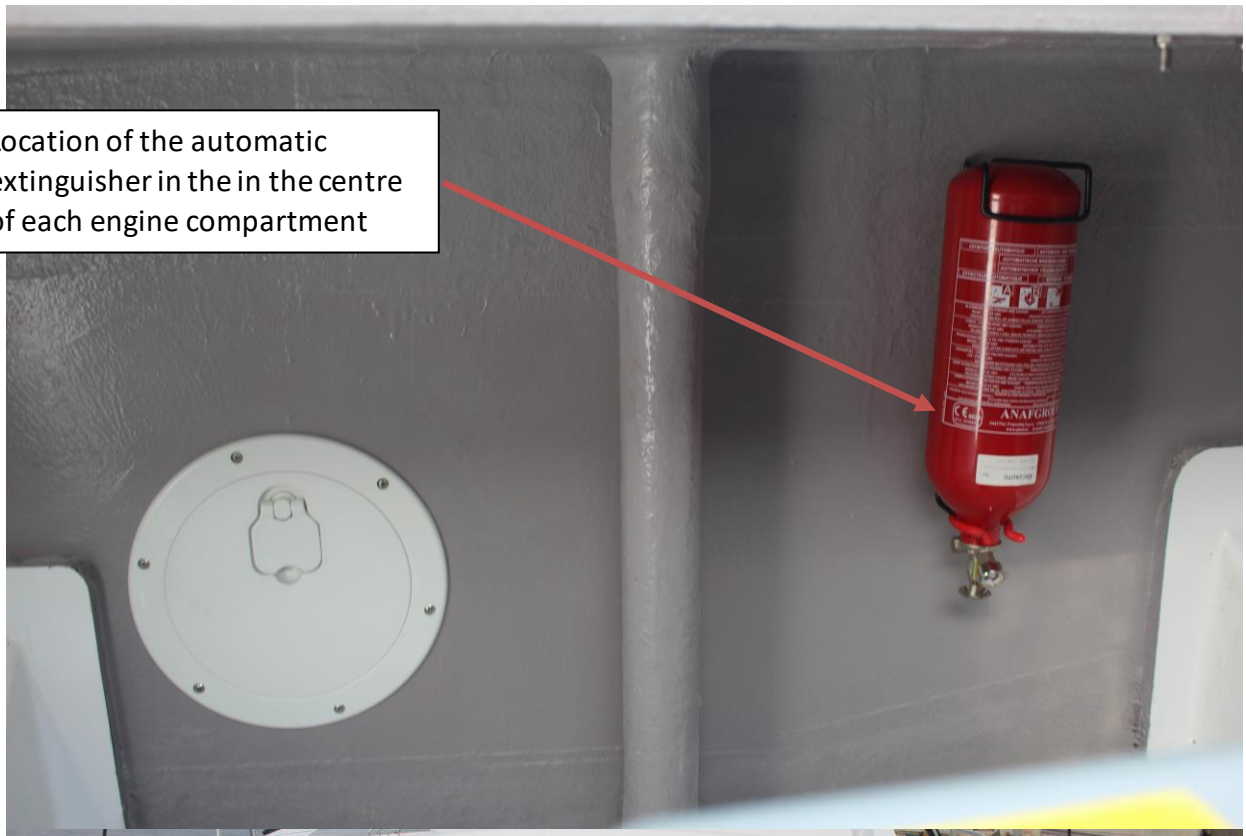

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CHECK LIST

ENGINE STARTING (may be different with non-standard motors):

- ☐ Check the engine oil level.
- ☐ Check the coolant level.
- ☐ Check the main engine cut-off switch.
- ☐ Check that the ECU supply breaker is ON.
- ☐ Check that the back-up panel is OFF.
- ☐ Open the engine cooling water intake valve.
- ☐ Open the fuel tap on the tank.
- ☐ Check that all ventilation openings are clear.
- ☐ Check that the throttles are in neutral.
- ☐ Check that there are no alarms on the screen at the helm station.
- ☐ Switch on the ignition and preheat for 10 s.
- ☐ Start the engine.
- ☐ Check the flow of cooling water overboard at the exhaust.
- ☐ Check that that there is no abnormal vibration or noise.
- ☐ Allow the motor to warm up at tickover for 5 or 6 minutes.
- ☐ Check for leaks in the cooling system, fuel lines, lubricants and exhaust.

In case of doubt or a problem, switch off the motor and consult the Owner's Manual, technical documents, plans or your dealer.

WARNING

Refer to the engine user manual concerning navigating when under sail !

STOPPING THE ENGINE:

- ☐ Slow the engine to tickover for 5 minutes.
- ☐ Activate the Stop control.
- ☐ Switch off the ignition.
- ☐ Close the various valves.
- ☐ Switch off the engine circuit breakers

In case of doubt or a problem, consult the Owner's Manual, technical documents, plans or your dealer.

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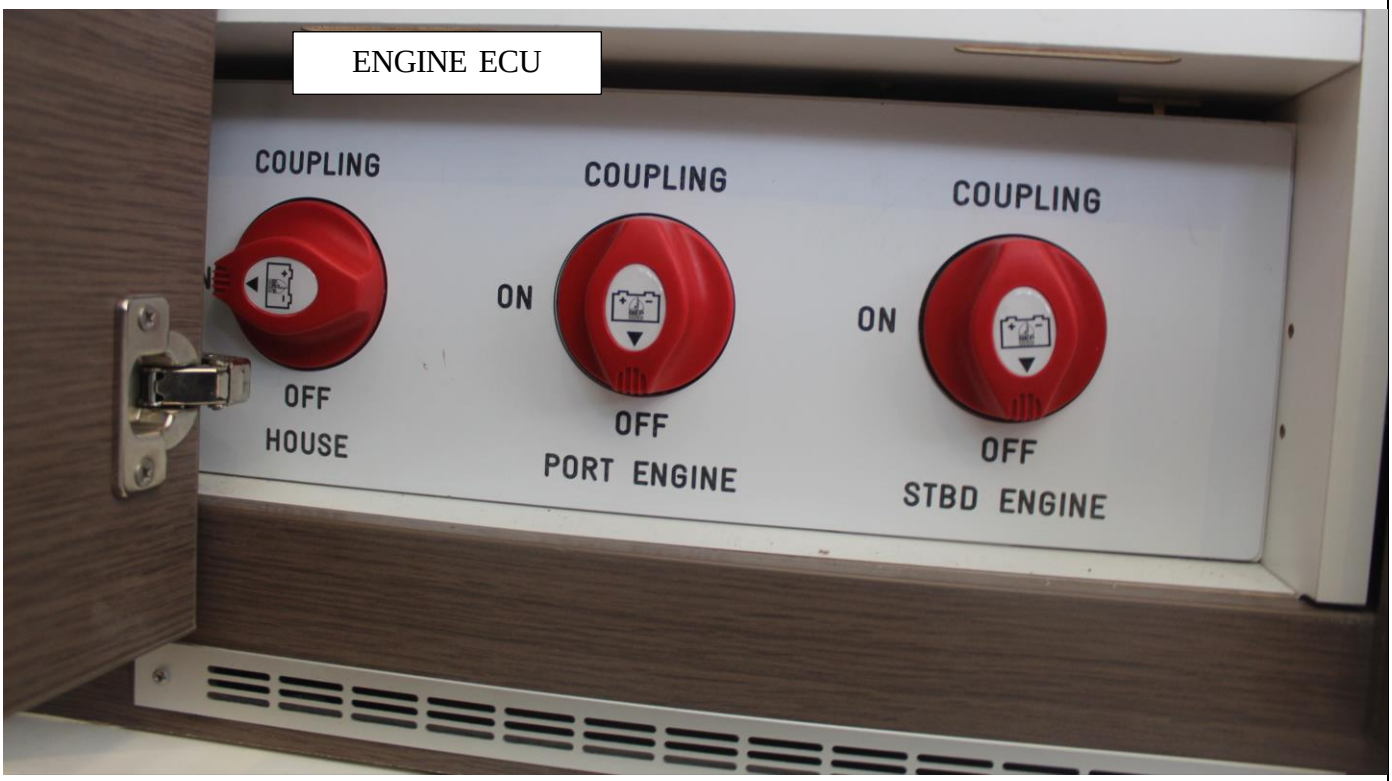
WARNING

When the engine is not run for prolonged periods, it is important to shut off the ECU to avoid discharging the batteries



REFILLING THE TANK:

- Have a fire extinguisher handy.
- Engine switched off.
- Electrical equipment switched off.
- Deck panels and hatches closed.
- Never fill the tank completely full, to allow for expansion of the fuel.

In case of doubt or a problem, consult the Owner's Manual, technical documents, plans or your dealer.

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BEFORE PUTTING TO SEA:

- Ensure you have the latest weather forecast.
- Victualling.
- Sailing clothing.
- Mandatory documents and equipment on board and in working order.
- Safety equipment (lifejackets, harnesses, fire extinguishers, distress flares, emergency tiller).
- Safety briefing for the crew including location of equipment.
- Bilge pumps in working order.
- Navigation lights in working order.
- Fuel tanks full.
- Fresh water tanks full.
- Check all the systems for leaks.
- Check the coolant fluid level.
- Check the rudders are working correctly.
- Check the diesel filters are clean and in good condition.
- Check engine oil level.
- Check battery levels.
- Check the rigging is in good order (shroud tension).
- Deck fittings in good order (blocks, winches, lines, furler, winch handles, jammers or clutches).
- Sails in good order (stitching, boltropes, batten cars).
- Close hatches and deck panels.

In case of doubt or a problem, consult the Owner's Manual, technical documents, plans or your dealer.

ON YOUR RETURN:

- Boat correctly tied up with fenders positioned.
- Sails dry and stowed.
- Safety equipment dry and stowed.
- Boat rinsed with fresh water.
- Spread the halyards so they do not flog.
- Coil the various lines.
- Check for leaks in the fuel or gas systems.
- Check for leaks in the plumbing systems and bilge pump circuits.
- Close seacocks.
- Open the fridge.
- Switch off the electrical system.

In case of doubt or a problem, consult the Owner's Manual, technical documents, plans or your dealer.

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9. ENGINE

(Plan n°19)

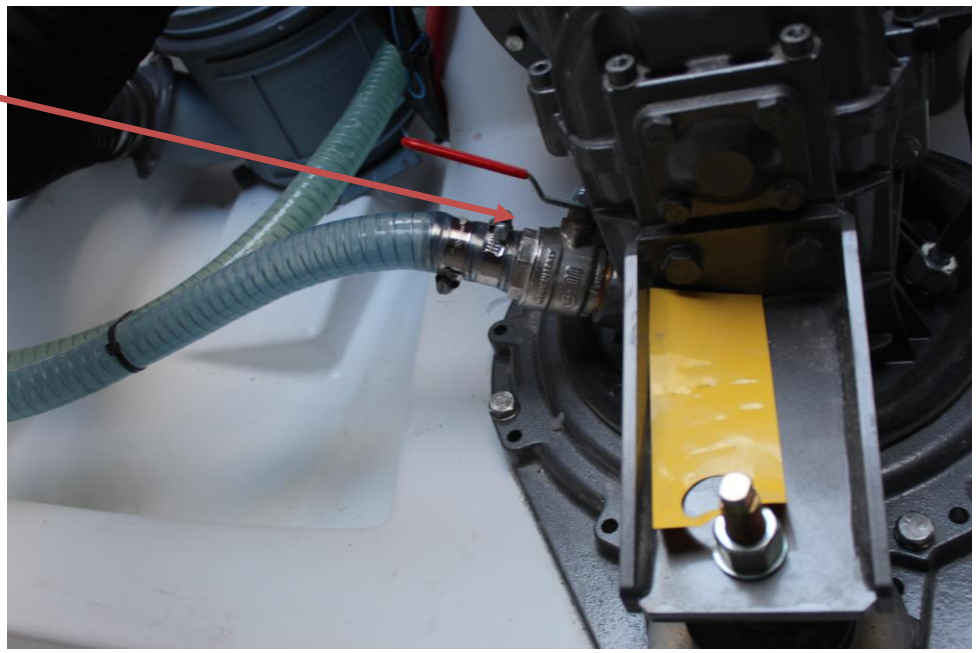
Regular maintenance must be carried out in accordance with the engine manufacturer's service schedule. Read carefully the engine user manual which was supplied with your boat. Do not hesitate to contact your dealer or qualified professional for advice.
Pay particular attention to instructions concerning winterizing.
In the absence of other information, proceed as follows:

- Close the raw-water cooling intake valve (Figure 11),
- Switch off the engine battery cut-offs
- Disconnect the raw water intake hose from the seacock.
- Empty the seawater cooling system.
- Immerse the tube into a container of coolant fluid of –25°C.
- Run the engine until coolant flows from the exhaust.
- Reconnect the tube to the valve after you have finished.
- Stick a note to the electrical panel and to the battery shut-off switch saying that the raw water intake valve is closed.

Do not start the engine unless the throttle is in neutral.
Do not store diesel in compartments not designed for this purpose.
It is the owner's responsibility to check the condition of the fuel lines.

Location of the raw water intake valve at the back of each engine

Figure 11



CAUTION

If new engines are installed, they must comply with the capacities of the boat, and must be installed by a specialist marine engineer.
Do not obstruct or modify the ventilation system of the engine compartments

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CAUTION
Under sail and with the engines switched off, the raw water intake seacock must be closed at speeds in excess of 8 kts (refer to engine manufacturer's information).

9.1. Launching the boat / making adjustments

CAUTION
- Ensure that the raw-water cooling intake valve is open, and that water is coming out of the exhaust.

A quick check that the propeller is securely fixed should be carried out before each launch.
A poorly working propeller can be a source of vibration.
Regularly check the condition of the zinc anodes and ensure that they are the correct anodes for the environment (fresh water or sea water). Change the anodes every year.
The purpose of an anode is to equalize the electrical potential between the aluminium and other metals (stainless steel, bronze, etc.) The average life expectancy of an anode is 1 to 2 years.

These anodes are made of zinc. Anodes made from magnesium must absolutely not be used. Systems using impressed current for cathodic protection are to be avoided.
If the anodes have not been changed, you must check:

- That they have not been painted,
- That they are securely fixed and are in contact with metallic parts,
- That they are made from zinc.

9.2. Exhaust gas emissions

DANGER
Combustion engines produce carbon monoxide. Prolonged exposure to exhaust gases may cause serious illness or even death.

9.3. Safety

DANGER
The engine must not be used if swimmers are close to the boat to avoid any risk of serious injury caused by the propeller. **If possible, the engine must be stopped for any maintenance procedures or engine checks. If not, particular care must be taken with any moving parts (drivebelts, etc) to avoid risk of injury.**

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10. FUEL SYSTEM

(Plan n°19)

Flexible fuel hoses must be:

- Replaced by hoses of the same type (with the same markings).
- Replaced at the first sign of deterioration.

The fuel tanks correspond to CE (ISO 10088) standard.

CAUTION

The nominal fuel capacity is not necessarily totally usable, as a result of the loading and trim of your boat. For safety, allow a margin of 20% in reserve.
Avoid contact between any flammable materials and hot parts of the engine.
Never:

- **Store diesel in areas not designed for this purpose.**
- **Store any flammable materials in unventilated areas which are not designed for this purpose.**
- **Smoke when refilling fuel tanks.**
- **Obstruct ventilation systems (vents or grills for ventilating the engine compartment).**
- **Modify the engine installation unless this is carried out by a qualified marine engineer.**

11. STEERING SYSTEM

(Plan n°11)

The steering system is an essential element in the safety and comfort of your vessel.

11.1 Steering wheel

The steering wheel (Figure 12) controls the rudders via a cable system; the two rudders are linked together by cables.

Steering wheel

Figure 12

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- Periodically check the amount of play in the different parts of the system (rudder post / bearings)
- Periodically grease the system.
- Periodically check the entire length of the cables as well as their terminals to check for any evidence of wear.

The steering stops are bolted to a shelf secured to the main structure of the boat.

In case of doubt or problems, consult your dealer. In case of damage to either of the two rudders:

- Detach the cables from the rudder shaft. A 17 mm spanner/wrench will be required for undoing the tensioners.
- Install the emergency tiller (see chapter 11.2)

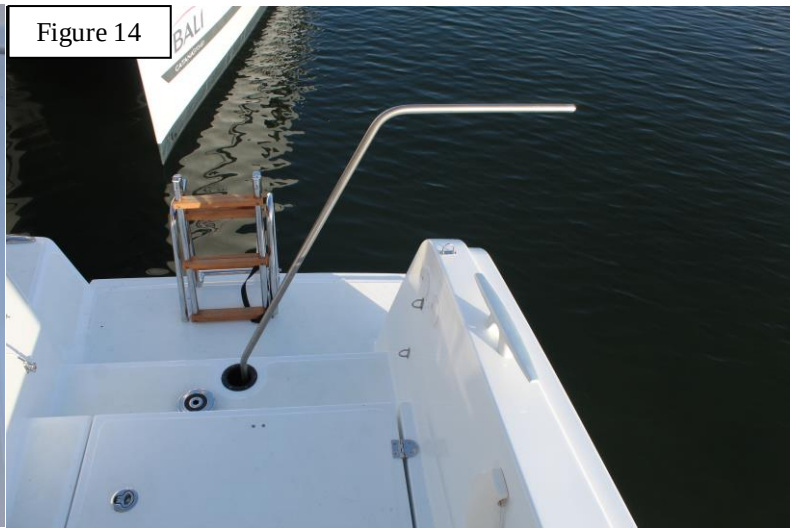
11.2. Fitting the emergency tiller

CAUTION

- The BALI 4.2 is equipped with an emergency tiller, which must be kept easily accessible.
- It is only designed for sailing at reduced speed in the event of damage to the steering system.
- Maximum steering wheel diameter 1 m
- The emergency tiller is located in the aft bench seat locker.

Figure 13

Figure 14



Unscrew the deck plug (Figure 13) and insert the tiller (Figure 14).
Separate the parts of the steering system where problem originated and ensure that the rudder or rudders can be moved freely without effort.

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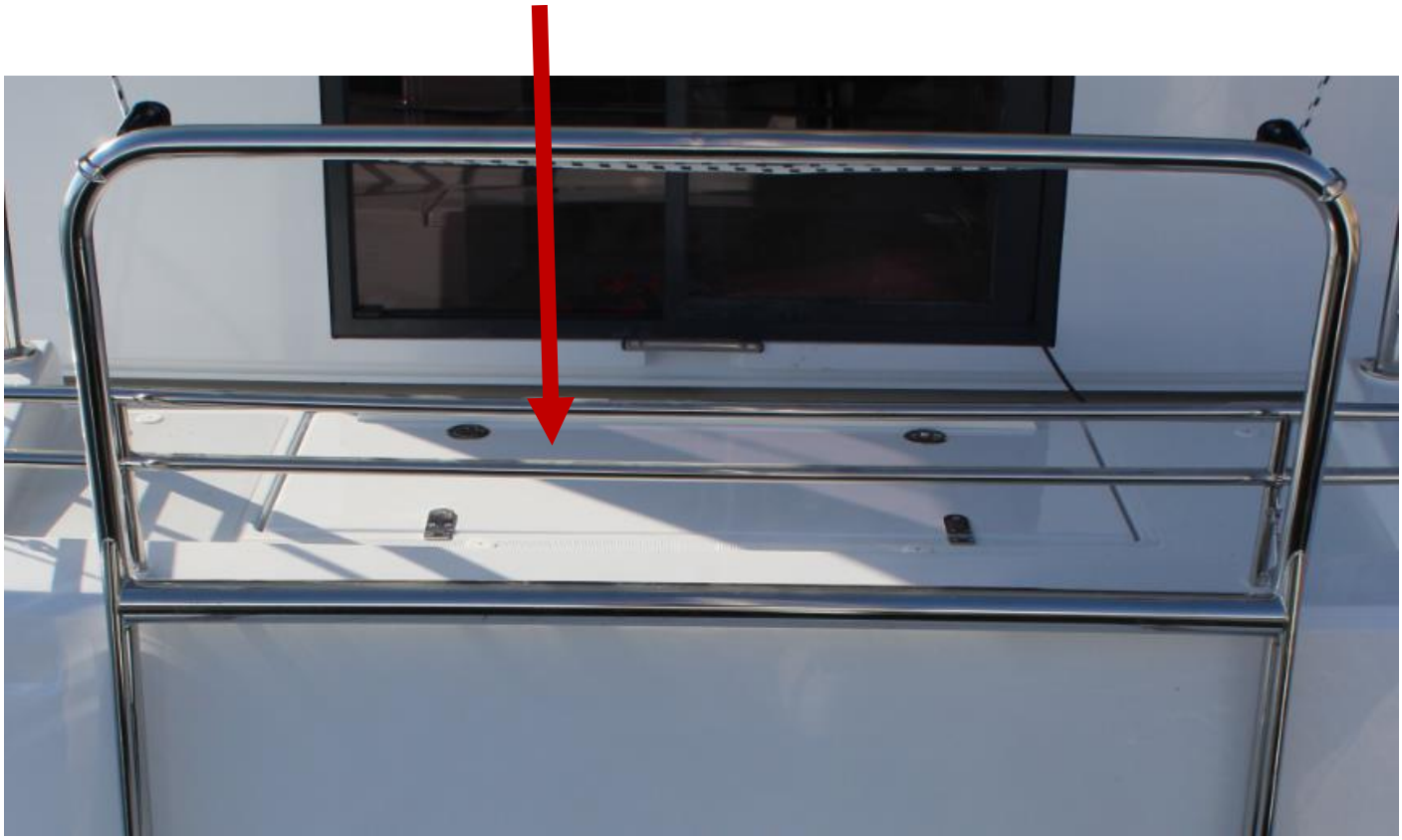
The emergency tiller is located in the aft bench seat locker.



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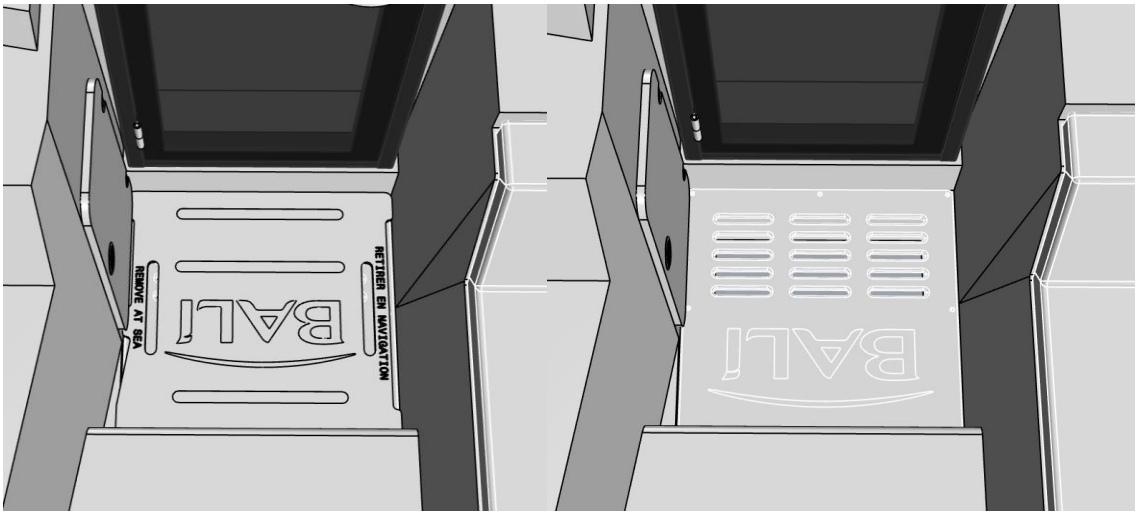
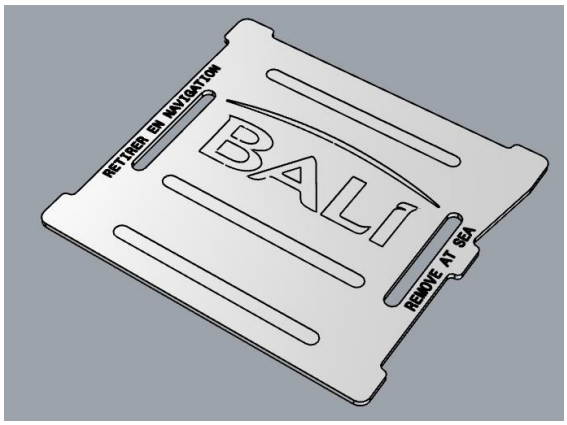
12. SAILING





WARNING

When under way, remove the covering board from the forward sump grating.

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WARNING

In every situation, adapt your boatspeed to suit the conditions and maintain a margin of safety. Pay particular attention:

- **To other marine traffic.**
- **To manoeuvres in port.**
- **To passages through anchorages.**
- **To the sea state, currents, wind strength. Breaking waves in particular can present significant dangers to stability.**

Ensure that any equipment not fixed down is secure in the boat when it is under way.
Observe the rules of the road concerning priority, as defined by the International Regulations for the Prevention of Collisions at Sea (COLREGS).
Ensure you have sufficient space to stop or manoeuvre if necessary, so as to avoid a collision.
Respect any speed limits in force.
Out of courtesy and for the safety of other vessels, do not produce a large wake when in the proximity of other craft.
Always make sure you are aware of any local rules as well as international regulations (eg. MARPOL).

WARNING

- Your boat must be fitted with lifelines. Padeyes are located on the deck for this purpose. Refer to the deck fittings plan for your boat.
- If your boat if fitted with lifelines made from synthetic fibre, an annual inspection and five-yearly replacement must be carried out.
- The stability of your boat has been designed taking into account options available from the yard. Any modification affecting weight distribution on board (for example the addition of a radar, an in-mast furling system, changing the engines, etc) can have a significant effect on stability, trim and performance of the boat.
- Towing a boat can impose significant loads, reducing the stability of your boat.
- The means of getting back on board must be permanently deployed if the boat is to be used single-handed, whether it is anchored, moored, alongside or under way.

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The stability has been calculated for a vessel in minimal sailing condition MMOC and in return sailing condition M_{LA}.
This boat is at risk of capsize or being swamped if carrying an excessive amount of sail. It is designed to not sink in such circumstances. Sail area must be reduced. Particular vigilance must be used in the case of conditions with gusty wind or squalls.
Sail area should be reduced in accordance with boatspeed and wind strength. The following precautions should be observed:

- In the event of strong gusts RELEASE THE SHEETS
- Hard on the wind LUFF UP
- With the wind on the beam RELEASE THE SHEETS
- Downwind BEAR AWAY

DANGER

Always ensure you follow the instructions on the plan for reducing sail **Refer to the sail reefing plan on page N°94**
The BALI 4.2 has buoyancy compartments (coachroof, space between nacelle and saloon floor, etc): under no circumstances should holes be made in these

To evacuate the crew from inside the boat in the event of total capsize, escape hatches are located under the companionway steps (see plan N°3). In this event, they can also be used to access the interior to retrieve safety equipment or to take refuge from the wind and waves. They can be opened manually from both inside and outside.

12.1: Visibility from the helm station
(Plan on page N°96)

The operator's view from the helm station may be obscured by one or more of the following variable situations:

- Loading of the vessel and distribution of the load.
- Speed.
- Sea state.
- Reduced visibility (by rain, darkness or fog).
- Visibility reduced by sail changes and hoisting of foresails (Solent, genoa, gennaker, Code 0, etc.)
- Lights from the interior of the boat.
- Position of covers or curtains.
- People or moveable equipment located in the helmsman's field of vision

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13. RIGGING

CAUTION
The wind instrument must be regularly checked

To limit the risk of capsize, the sail area should be reduced in accordance with the wind strength but also factors such as:

- **Sea state**
- **Comfort and crew ability**
- **Entering and leaving port**
- **Gusty conditions or fog**

Standing rigging

Daily:

- After every sail, all the lower parts of the standing rigging should be rinsed with fresh water (shrouds, forestay and diamond stay).

Monthly:

- All the swages should be inspected so as to determine the condition of the wires. It is essential to check that there are no broken strands and that the wire is aligned with the body of the swage or terminal. The strands (the individual stainless-steel lines which make up the wire) must be in perfect condition.
- Check the split pins and locking screws on the bottlescrews and clevis pins.
- Check the fixing point of the forestay and all the elements securing it: clevis pin, nut, split pin, struts.

Annually:

- A full inspection of the standing rigging must be carried out by a rigger. This inspection must include a visual check along the length of each wire so as to detect any wear or marks which could lead to a deterioration of the condition of the wire or its components.
- An inspection of each of the anchoring points of the standing rigging must be carried out to check their integrity and that there is no deformation, bends or dents.
- The bottlescrews must be greased every year. Unscrew each bottlescrew in symmetrical fashion on the rigging (starboard/port) several turns, grease the threads with a Teflon-based grease and retighten the bottlescrew to the original setting. Check the split pins and locking screws of the bottlescrews.

In the event of a broken strand, the wire must be immediately replaced.

Lifespan: The whole of the standing rigging is guaranteed for 12 months from the date the mast is stepped. After this period, the standing rigging should be the subject of regular inspection.

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Aside from these periodic checks, it is imperative that the following elements are changed every 10 years or every 20,000 miles (whichever comes first).

- Capshrouds
- Lower shrouds
- Forestay

Running rigging

The ropes which make up the running rigging are made of textile fibres which need to be continually checked due to their sensitivity to ultra-violet light. Rinsing them in fresh water after every trip at sea will extend their life expectancy as well as improve their handling by reducing the amount of salt which can dry within the fibres.

Mast

Before first use:

- Check the fixings of the masthead antennas.
- It is essential to check the insulation of any antenna, particularly the VHF and radar when transmitting to avoid any risk of rapid deterioration of the spars.
- Inspect the rigging, split pins, and locking systems of bottlescrews and clevis pins.

Daily:

- The mast foot and the lower part of the mast itself are subject to spray, so must be rinsed daily to avoid a build-up of salt on any of the parts. All moving parts or parts where there is friction, such as sheaves or gooseneck fitting must also be rinsed daily.

Monthly:

- Any parts which are subject to friction (gooseneck fitting, sheaves, cars etc.) must be lubricated with a suitable product (Teflon-based).
- Check that sheaves are free to turn and check for any wear.

Annually, before the start of the season:

- Check the fixings for the masthead antennas.
- Check the insulation of the antennas, particularly the VHF and radar when transmitting.
- Inspect the mast and fixings around any welds and where any deck hardware is attached.
- Inspect the mainsail mast track and the batten cars.
- Inspect the mast foot to check for any wear on the base.

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Boom

Daily:

- The boom end fittings are subject to spray and must be rinsed every day to avoid a build-up of salt on any of the parts. All moving parts or parts subject to friction, such as sheaves or the gooseneck must also be rinsed daily.

Monthly:

- All parts subject to friction (gooseneck, sheaves) must be lubricated with a suitable product (Teflon-based grease, for example).
- Check the sheaves are free to turn, and check for any wear.

Annually, before the start of the season:

- Inspect welds and deck hardware fixings.

14. LIGHTNING PROTECTION

For your safety, certain precautions must be observed.

14.1. Maintenance

If the vessel has suffered a lightning strike:

- The protection system must be examined to detect for any damage and to check the integrity of the system's circuit.
- Compasses, electric and electronic equipment must be examined to determine if there has been any damage or if any changes to calibrations or settings have occurred.

14.2. Personal protection during a thunderstorm

WARNING
During a thunderstorm the following advice should be followed: - **The crew must try to stay inside the boat as much as possible.** - **You must not go in the water, nor should anyone have their arms or legs in the water.** - **While ensuring proper and safe control of sailing the vessel, no-one must touch any part of the lightning protection system, and especially not to try to link any of the parts of the system.** - **Crew should avoid any contact with metal parts of the rigging, the spars, deck hardware and guardwires.**

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15. ENVIRONMENTAL PROTECTION AND SAFETY

We advise you to make sure you are informed of local environmental regulations, and international regulations concerning maritime pollution (MARPOL Convention) as well as the codes of best practice.

CAUTION
- Most cleaning products, engine oils and hydrocarbons are not neutral to the environment, so they must be discharged where there are proper facilities (enquire at the local port office). **- Certain products also present risks your safety to yourself and others, which is why it is important to read and adhere to the user instructions.** **- Such products must be properly labelled and stored in an appropriate and ventilated location on board.**

16. SAFETY EQUIPMENT

(Plan n°3)

16.1. Liferaft

There is currently no common mandatory requirement for safety equipment across the European Union, so it is up to the boat's owner to make sure they are informed as to what national regulations exist in their particular country, with regard to CE marked vessels.
In France, pleasure vessels which are CE marked must be equipped with safety equipment designed for the relevant category of navigation under the responsibility of the yachtsman.

Your boat is equipped with a location for stowing a liferaft (Figure 15); This is accessible in the aft locker or via a hatch in the underside of the nacelle.
To launch the liferaft from the cockpit, lift the aft bench seat lid (Figure 15), secure the liferaft to the boat as described in the instruction manual supplied with the liferaft, then pull the black handles (Figure 16) on either side of the nacelle hatch to unlock it and release the liferaft into the water.
In the event of the boat being overturned, to release the hatch in the underside of the nacelle (figure 17), pull on the pins in each corner (figure 18) which secure the hatch. Then tilt it to gain access to the liferaft.
Carefully read the user manual for the rafts. The crew must be familiarised with the use of all of the vessel's safety equipment (harnesses, distress flares, liferaft, etc.) Sailing schools and yacht clubs regularly organise training sessions.

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Figure 15

Figure 16

Figure 17

Figure 18

CAUTION
In the event of serious damage to the boat, use the designated escape routes **REFER TO THE PLANS ON PAGES 125 to 126 – ABANDONING SHIP -**

16.2. Getting back on board

A bathing ladder is accessible from the port sugarscoop. Before going swimming, the ladder must be put in the water. It is fitted with a strap allowing it to be deployed in the event of falling overboard (figure 19).

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Figure 19

CAUTION

- When single-handed, you should have a system for boarding the boat permanently rigged while the boat is anchored, moored, tied up or under way.

DANGER

The engines must not be engaged if swimmers are close to the boat to avoid the risk of serious injuries caused by the propellers.
It is recommended that the port engine be switched off whenever the bathing ladder is deployed.

17. HOISTING, TRANSPORT, STORAGE ASHORE

(Plan n°13)

During haulout, ensure that the slings are correctly positioned, and they are not bearing on the propellers, or any delicate parts, such as transducers, etc.
The slings must be positioned in line with the mast bulkhead and the coachroof bulkhead, as indicated by grey triangles above the antifouling. Under no circumstances must the slings put any weight on the guardwires. When placing the boat ashore, the hull must rest uniformly on the points marked by the grey triangles above the antifouling. Travel hoists must be sufficiently wide or be equipped with spreader bars so as not to apply too much transverse force at the gunwales.
The pads of a cradle or props must be positioned level with structural elements, and only exert the pressure necessary to provide the correct balance to the boat. Their curve must perfectly fit that of the hull in a way that each should apply pressure over an area no smaller than 400 mm wide by 200 mm long (100 mm either side of the structural area).

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Take advantage of the boat being out of the water to inspect the propellers, anodes, rudders, through hull skin fittings and transducers.

DANGER
Never use the electric winches for hoisting a person up the rig: a breakdown in the system could lead to irreparable damage.

18. Anchoring, mooring and towing

The mooring cleats are designed for a maximum load of 8,500 kg.
If towing or being towed, always do so at a slow speed.
A tow line must always be tied in a way that it can always be released under load.

CAUTION
- Any anchorage points which show any visible signs of deterioration must be replaced. **- It is the responsibility of the owner / user to ensure that mooring warps, towlines, chain and anchor rode, as well as anchors are adequate for the envisaged use of the boat, which is to say that lines or chains should not exceed 80% of the breaking strain of the corresponding anchorage point.** **- The owner should also take into consideration the actions which would need to be taken to rig a towline on board.** **- The yard recommends using an anchor rode comprising 70 metres of 10mm chain and a 20kg Delta anchor (breaking strain 5,000 kg)** **-It is recommended to use the bridle provided for anchoring or for towing.**

18.1. Anchor bridle

It is important to use the anchor bridle as follows:
- Simply press the button for lowering the chain. When the chain touches the bottom, let out a length at least three times the depth of the water, taking into account any predicted rise of tide.
- Engage both engines astern.
- When the anchor has dug in, attach the bridle to the chain to balance the catamaran.
- Once the chain hook or shackle has been secured to the chain, run out a little more chain so that the tension is evenly distributed on the bridle and no weight remains on the section of chain between the bridle and the windlass.

19. HULL – MAINTENANCE

UNDERWATER HULL

19.1. Preventative maintenance

Wherever you sail, it is essential to regularly apply antifouling paint to the underwater hull. This will protect the hull from any marine growth such as algae or barnacles. Check that your propellers are always clean. These factors can affect the performance of your boat. A dirty boat can lose 25% of its normal speed.

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WARNING

Scrupulously respect the usage instructions of the products you are using.

The hull treatment for the BALI 4.2 offered as an option by the yard comprises the following:

- Degreasing and matting the surfaces
- 1 coat of primer
- 2 coats of antifouling

19.2. The hull

Two haulouts per year are preferable to one.
Haulout allows you to check the condition:

- Of cleanliness of the raw water inlet strainers;
- Of through-hull skin fittings;
- Of seacock valves;
- Of the rudders (check for any play or wear);
- Of the anodes;
- Of the propellers.

Maintenance:

Clean with a brush or a pressure washer:

- Cold water;
- Maximum pressure: 60 bars;
- Never bring the nozzle closer than 60 cm from the hull;
- Dry the hull;
- Apply the antifouling with a brush or a roller.

TOPSIDES

The gelcoat is shiny and fade-resistant to atmospheric factors, in particular those found in the marine environment. As such it requires little maintenance. However, it is a good idea to follow a regular maintenance programme for the hull, in order to maintain its good appearance.
We recommend a wax or anti-UV wax treatment once a year on the smooth areas to keep them shiny.

WARNING

Scrupulously respect the usage instructions of the products you are using.

WARNING

In the event of an impact with a sharp object, the hull is liable to have been breached. Should this be the case, repairs must be effected as soon as possible.

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19.3. Cleaning the deck

- Use products specifically designed for washing or cleaning decks.
- Rinse thoroughly.
- Do not use any abrasive detergent.
- Any glazed areas must be cleaned with products and materials suitable for PMMA.
- To maintain the shine of painted or varnished areas, it is important to rinse the boat frequently with fresh water.
- Use non-aggressive products which are specific for the particular maintenance.

19.4. Marks on the hull or deck

19.4.1. Scratches

- Sand with 1000 grade abrasive paper. You can add a little washing-up liquid to prevent the paper clogging.
- Rinse thoroughly.
- Finish off with a polishing product for paint.

19.4.2. Chips in the gelcoat in smooth areas

- Clean and thoroughly dry the affected area.
- Prepare a small amount of filler in the colour of the deck or the hull (see your dealer).
- Apply with a spatula.
- Cover the repair with polyamide film or sticky paper.
- Remove the film when the repair has dried.
- Sand with water using 400-grade wet and dry paper, then 600-grade, then 1000. Add a little washing-up liquid to prevent the paper from clogging.
- Rinse thoroughly.
- Finish off by polishing with a product designed for paint.

19.4.3. Chips in the non-slip paint

Note: Scratches and chips are not serious to the solidity of the boat, as the outer covering does not form part of the structure. It is however important that water cannot penetrate through to the fibreglass. In the event of any significant damage, it is essential you contact your dealer.

19.5. Scratches on the hatch covers

- Rub with a soft cloth or cotton soaked in a polishing product specifically for PMMA. In the case of deep scratches, contact your dealer.

19.6. Sails

Sails such a gennaker or a code 0, which have an integral boltrope in the luff and which are rigged on a furler, must not be left hoisted for long periods or when there is no-one on board.

Other than the question of safety linked to the fact that they could unfurl involuntarily, their UV protection is lower than that of other furling sails, as they were not designed to be left permanently hoisted.

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Catana does not guarantee any sails which are not used in accordance with the recommendations above.

WARNING

Never use a solvent for cleaning deck panels and hatches.

20. DAVITS

Operating procedure for raising/lowering the tender:

- Undo the 2 fasteners on the lower section of the davit (figure 22).
- Stand at the back of the flybridge on the starboard side and turn the black line around the winch (figure 23).
- Open the clutch and ease the line out using the winch to lower the davit system. Close the clutch once the system has been lowered.
- Attach the snap shackles to the padeyes on the dinghy.
- Open the clutch and use the winch to raise the tender.
- The dinghy is in place when the two tubes of the dinghy touch the davits.
- Close the clutch and the lockbolts on the transom.

Reverse this procedure for lowering the dinghy.

CAUTION

Do not exceed a maximum dinghy weight of 150kg.
The yard recommends raising the tender with the motor positioned on the starboard side.
An optional outboard bracket is available for a motor weighing up to a maximum of 20kg.

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Davit / dinghy raising system
Figure 22

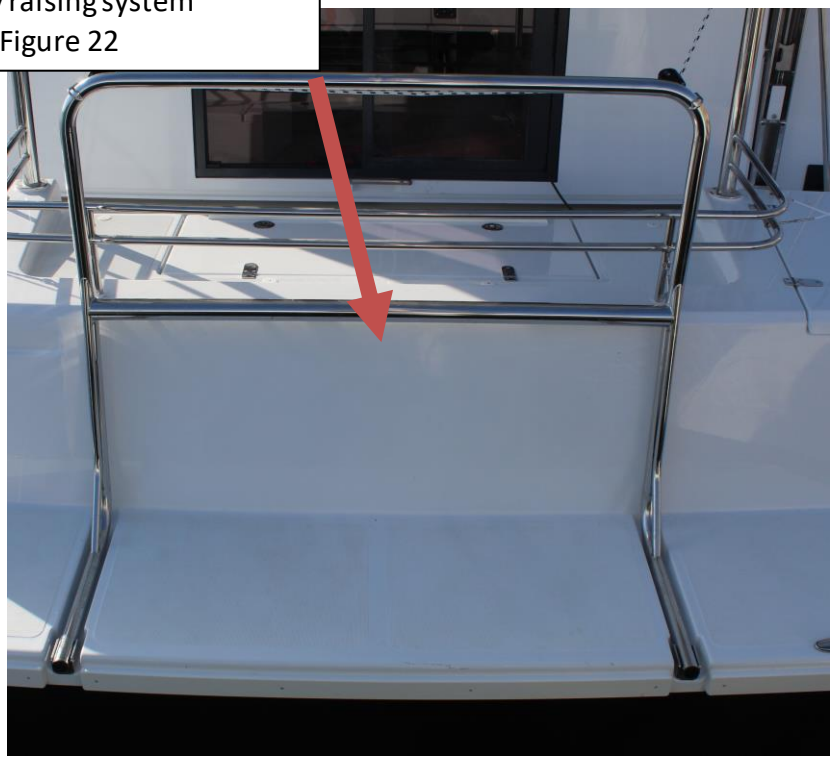

Figure 23

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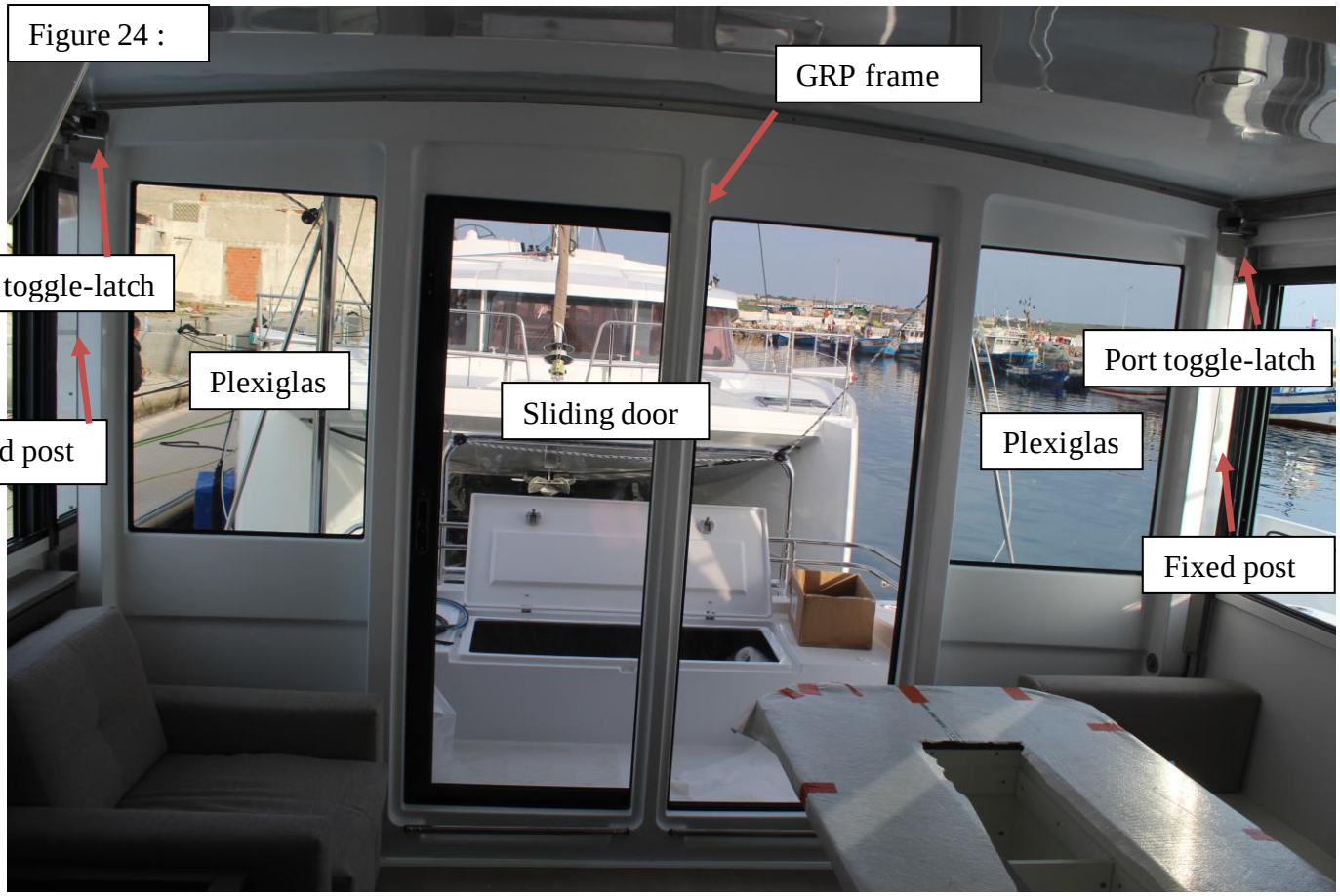
21. PIVOTING DOOR

21.1. Pneumatique pivoting aft door (as standard)

The tilting/pivoting aft door system comprises a GRP frame, a sliding door, fixed Plexiglas panels, fixed posts which house the mechanism, latches and toggle-latches (figure 24).

Figure 24 :



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Procedure for opening the door:

To open the tilting/pivoting door, the following procedure must be respected:

- Undo the 2 safety latches located in the upper extremities of the door and leave them in the open position (figure 25).
- Proceed to manually open the door, lifting from the outside using the handles.
- When the door has slid into its final position recessed in the deck head, ensure you engage the toggle-latches to lock the door in the open position (figure 26).

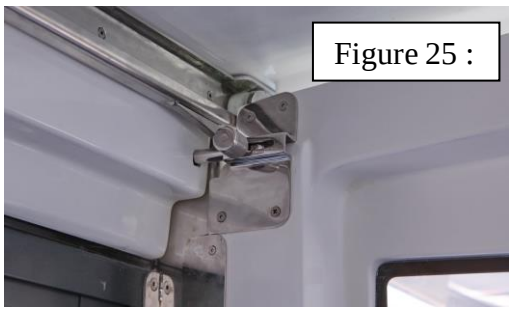

Figure 25 :

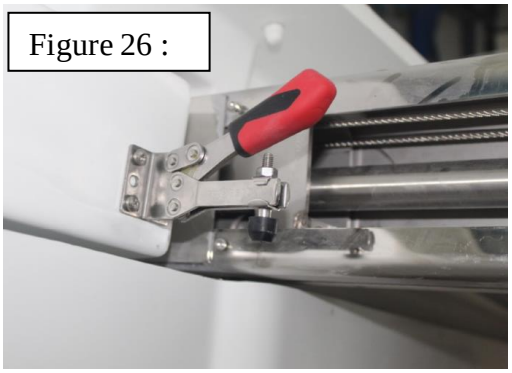

Figure 26 :

Procedure for closing the door:

To close the tilting/pivoting door, the following procedure must be respected:

- Disengage the safety toggle-latch to release the door.
- Carefully lower the door manually into its closed position.
- When the door has slid into its final closed position, do up the 2 safety latches located in the upper extremities of the door, ensuring that the latches have correctly clicked into place (figure 27).

Figure 27 :

Maintenance:

Unscrew the stainless-steel covers on the aft face of the fixed posts (figure 44) and those on top of the posts (figure 45).
Carry out a visual check of the general condition of the door and all components. Check the tension of the cables and the wear of the friction parts.
Oil all friction points with a standard lubricating oil.

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Figure 45:

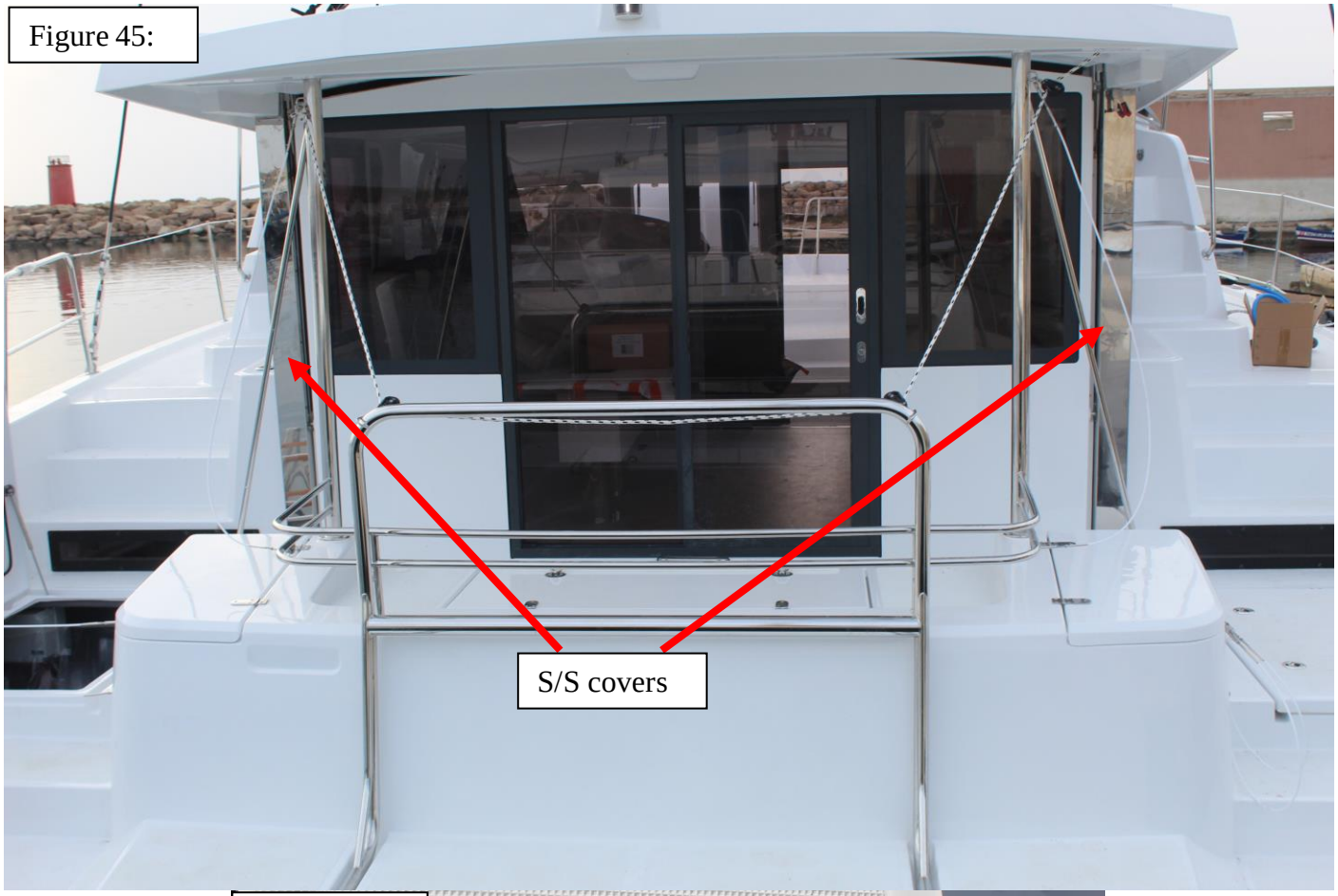

Figure 44:

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WARNING
Ensure that the door movement and swinging area is always clear and that no persons - especially children - are present while the door is being opened or closed.

SAFETY PRECAUTIONS
Do not allow children to play with the tilting/pivoting door.

Balancing the door:

- *Purpose:*

If the door exhibits too much resistance during operation, you can adjust the balance of the door should you consider it necessary.
The door tilts manually and is assisted by pneumatic cylinders.
The resistance of the cylinders may be adjusted (altering the gas content of the rams) to aid the initial tilting when opening, and to adjust the end of the door's travel to the deck head.
The aim of the operation is to remove gas from the cylinders so that the effort required is optimal.

- *Beware:*

CAUTION, it is very easy to remove the gas from the cylinder, it is on the other hand much more complicated to put it back, requiring the intervention of specialized company.

- *Conditions and equipment required:*

Must be undertaken by 2 people
Allen key Ø2mm
Allen key Ø4mm

- *Procedure:*

1- Remove the stainless steel covers on the aft face of the 2 door posts. Unscrew the 6 screws of each cover using a Ø4mm Allen key then remove the covers.
2- While one person holds the door in the closed position, the second person positions a 2mm Allen key in the socket on top of the ram in the valve holding the gas.
3- Using the Allen key, exert light pressure very briefly so that the gas can be heard escaping from the cylinder. The pressure must be very short so that not all the gas escapes. The noise must be very brief.
4- If you heard the gas evaporate, it means that the cylinder contains a little less gas and is therefore less resistant. If you did not hear any gas escape, this means that the pressure on the valve was insufficient, and you need to repeat the procedure applying slightly more pressure, but still for a very short duration.
5- The aim of the adjustment is to soften the cylinders by successive short strokes so that the door maintains a certain balance by itself. This balance is considered to be reached when the door remains in a fixed position 50cm from the saloon deck head where it fits. By a series of 3 very short jerks to

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release gas from the port and stbd cylinders, try to reach the required height by gauging, between each series of 3 jerks, the position of the door. Of course, the resistance of the cylinder on the port side must be the same as on starboard, so the same number of jerks is needed on each side.

6- Once the correct balance is achieved, screw the covers back onto each post.

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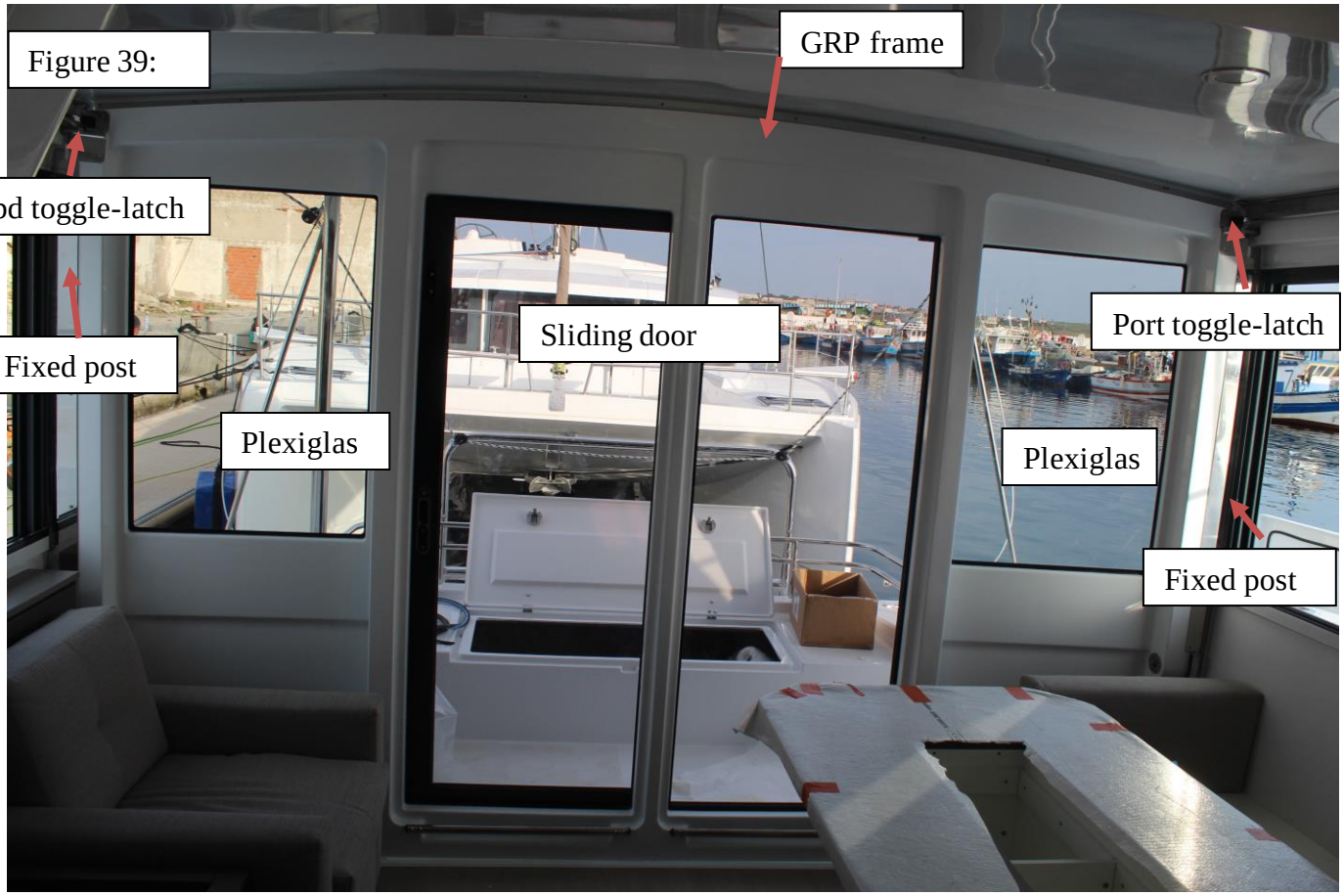
21.2. Hydraulic pivoting aft door (option)

The tilting/pivoting aft door system comprises a GRP frame, a sliding door, fixed Plexiglas panels, fixed posts which house the cables and the hydraulic mechanism, latches and toggle-latches and a push-button switch for raising and lowering (figure 39).



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Procedure for opening the door:

To open the tilting/pivoting door, the following procedure must be respected:

- Switch the door safety button at the chart table to the "ON" position.
- Undo the 2 safety latches located in the upper extremities of the door and leave them in the open position (figure 40).
- Press and hold the raising/lowering push button upwards (figure 41).
- When the door has slid into its final position recessed in the deck head, ensure you engage the toggle-latches to lock the door in the open position (figure 42).
- Switch the dedicated door safety button at the chart table to the "OFF" position.

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Figure 40 :

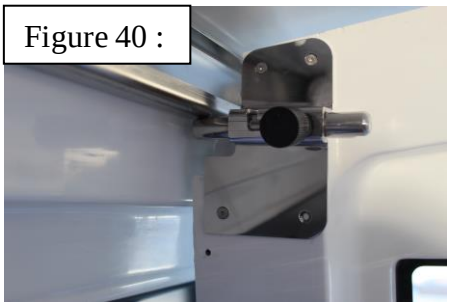
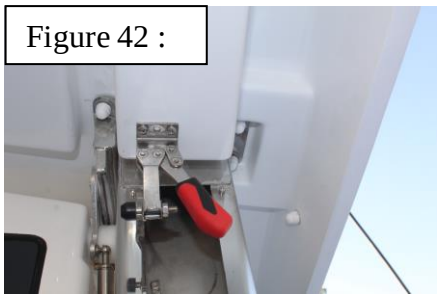


Figure 41 :

Figure 42 :



Procedure for closing the door:

To close the tilting/pivoting door, the following procedure must be respected:

- Switch the dedicated door safety button at the chart table to the “ON” position.
- Disengage the safety toggle-latch to release the door.
- Press and hold the raising/lowering push button downwards (figure 41).
- When the door has slid into its final closed position, do up the 2 safety latches located in the upper extremities of the door, ensuring that the latches have correctly clicked into place (figure 43).
- Switch the dedicated door safety button at the chart table to the “OFF” position.

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Maintenance:

Unscrew the stainless-steel covers on the aft face of the fixed posts (figure 44) and those on top of the posts (figure 45).

Carry out a visual check of the general condition of the door and all components. Check the tension of the cables and the wear of the friction parts.

Oil all friction points with a standard lubricating oil.

Figure 45:

Figure 44 :

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WARNING
Ensure that the door movement and swinging area is always clear and that no persons - especially children - are present while the door is being opened or closed.

SAFETY PRECAUTIONS
Do not allow children to play with the tilting/pivoting door.

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22. TRANSFER OF OWNERSHIP

CERTIFICAT DE TRANSFERT DE PROPRIETE
TRANSFER OF OWNERSHIP

Le bateau modèle / Modèle boat:.....

N° de coque / Hull N°:.....

De / From M / Mr:..... Adresse / Address: .....

....

C-P / ZIP CODE:.....Ville / City:..... Tel:.....

Date d'achat / Date of Purchase:.....

A ETE VENDU A / BEING SOLD TO:

M / Mr: .....Adresse / Address: .....

.....

C-P / ZIP CODE:..... Ville / City: .....Tel: .....

Date d'achat / Date of Purchase: .....

Fait à/at .....le/date: .....

Le vendeur / Seller L'acheteur / Buyer

Lieu/place: ..... le/date: ....

Exemplaire à retourner dans les 15 jours suivant la transaction a
Return this copy within 15 days of the transaction to

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23. LISTE DES PLANS

PLANS

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PRESENTATION		PRESENTATION	
Rep.	***Désignation***	***Rep.***	***Description***
	Plan de présentation		***Profile plan***
	Lg de coque 12.45 m		Hull length 12.45 m
	Lg flottaison 12.27 m		Waterline length 12.27 m
	Bau maximum 7.07 m		Maximum beam 7.07 m
	Tirant d'eau, 1.22 m		Draft 1.22 m
	Tirant d'air 18.784 m		Air draft 18.784 m
	Déplacement lège 12800kg		Light displacement 12,800kg

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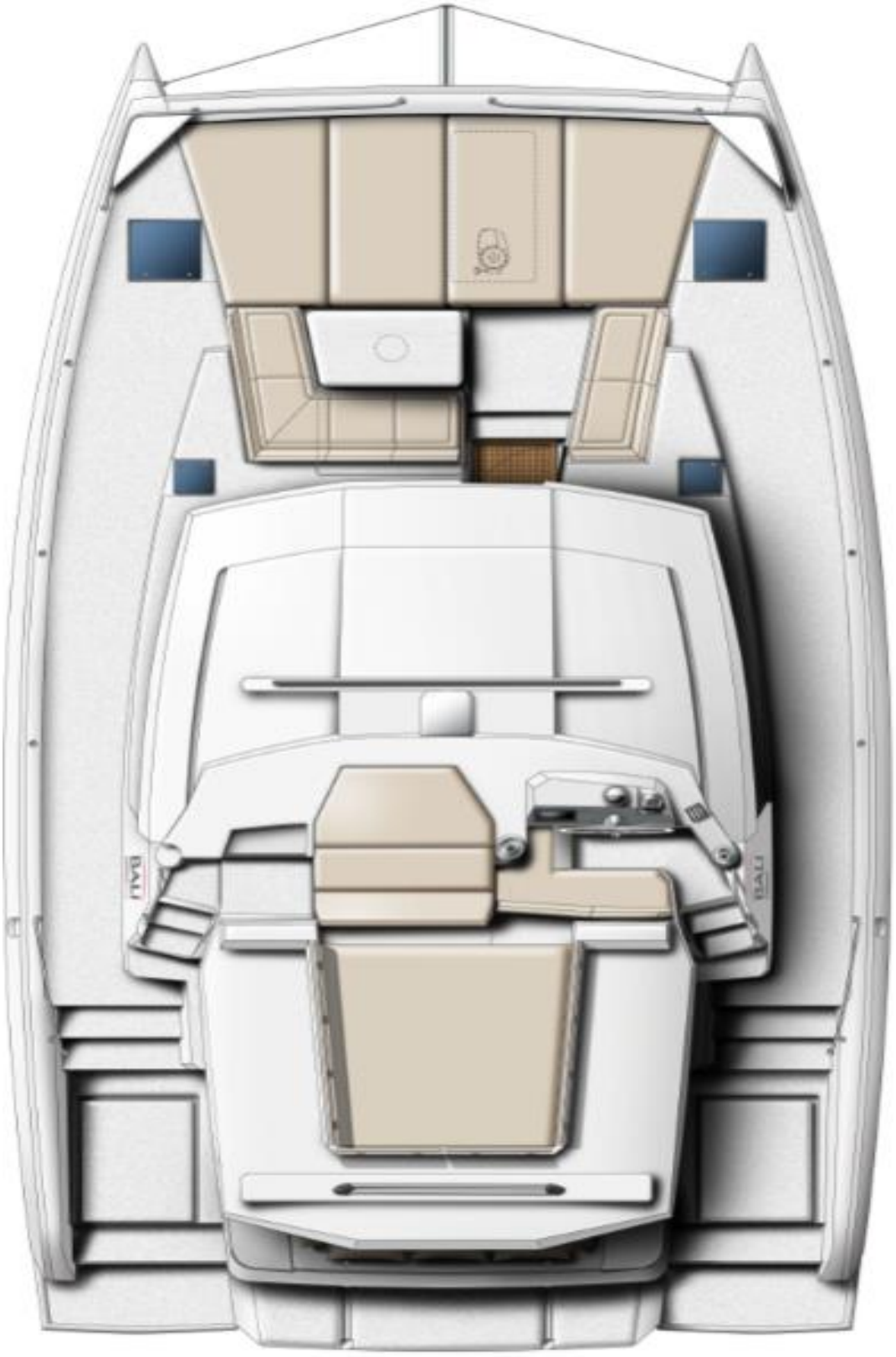
Deck



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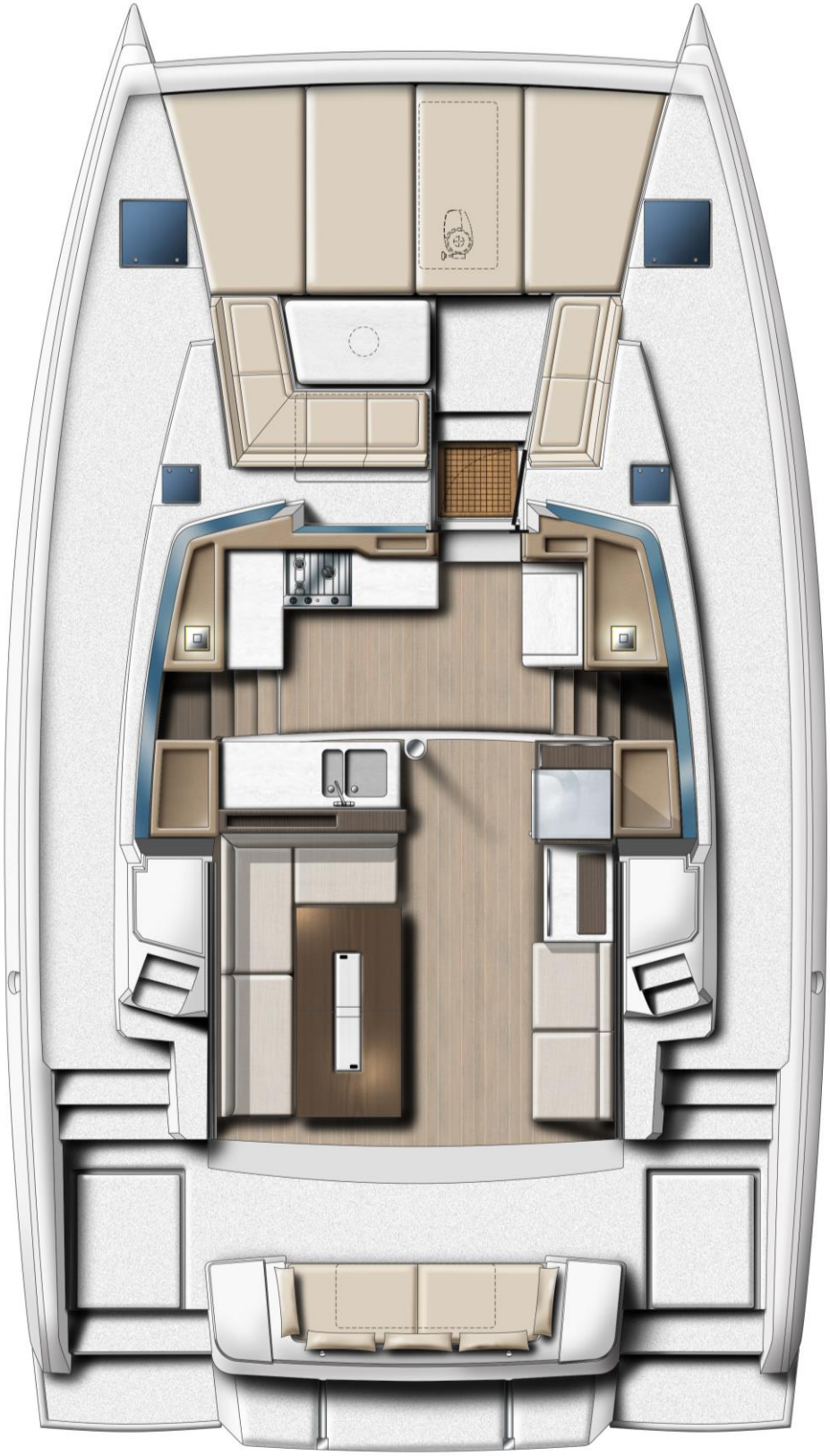
Nacelle



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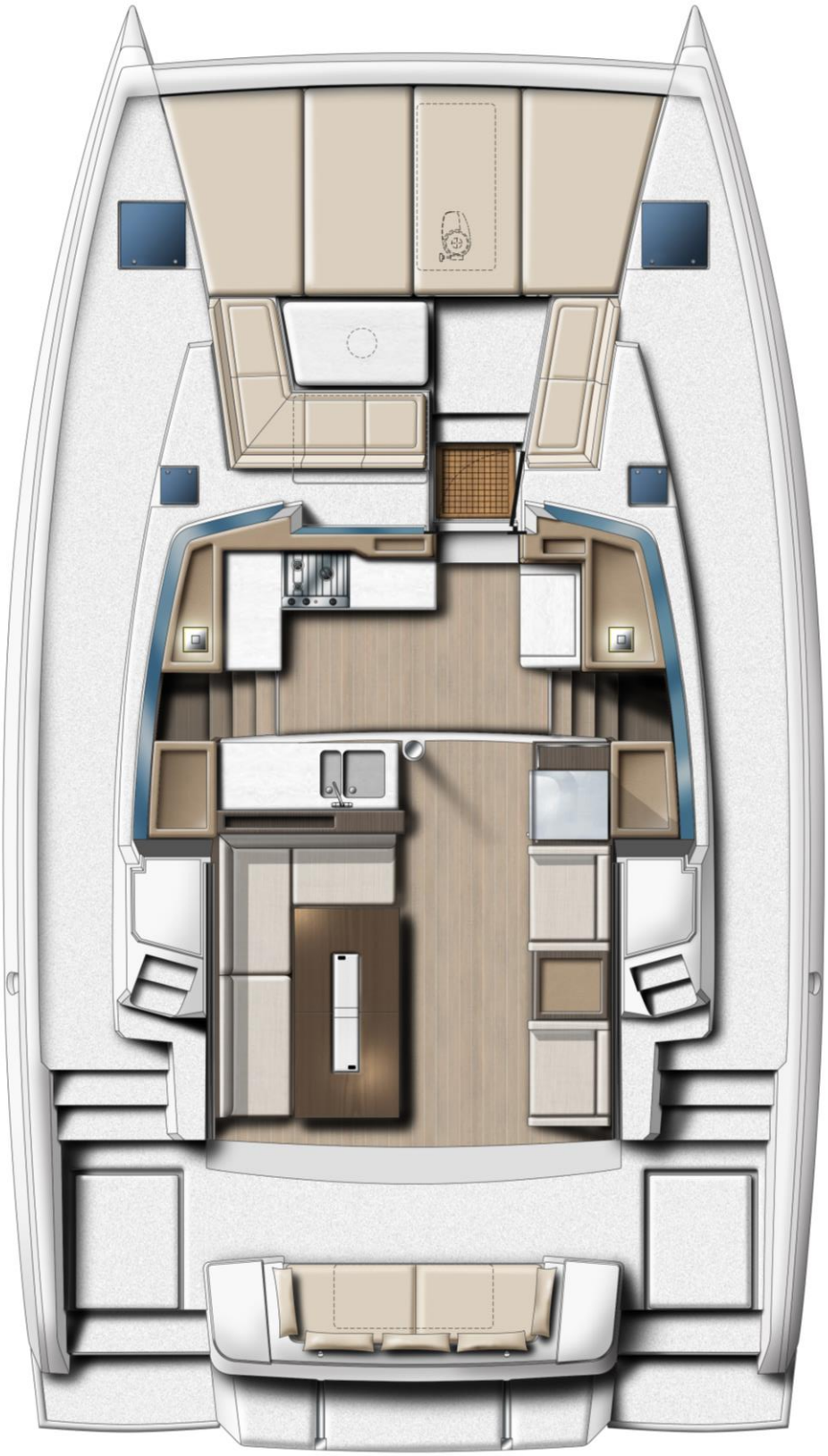

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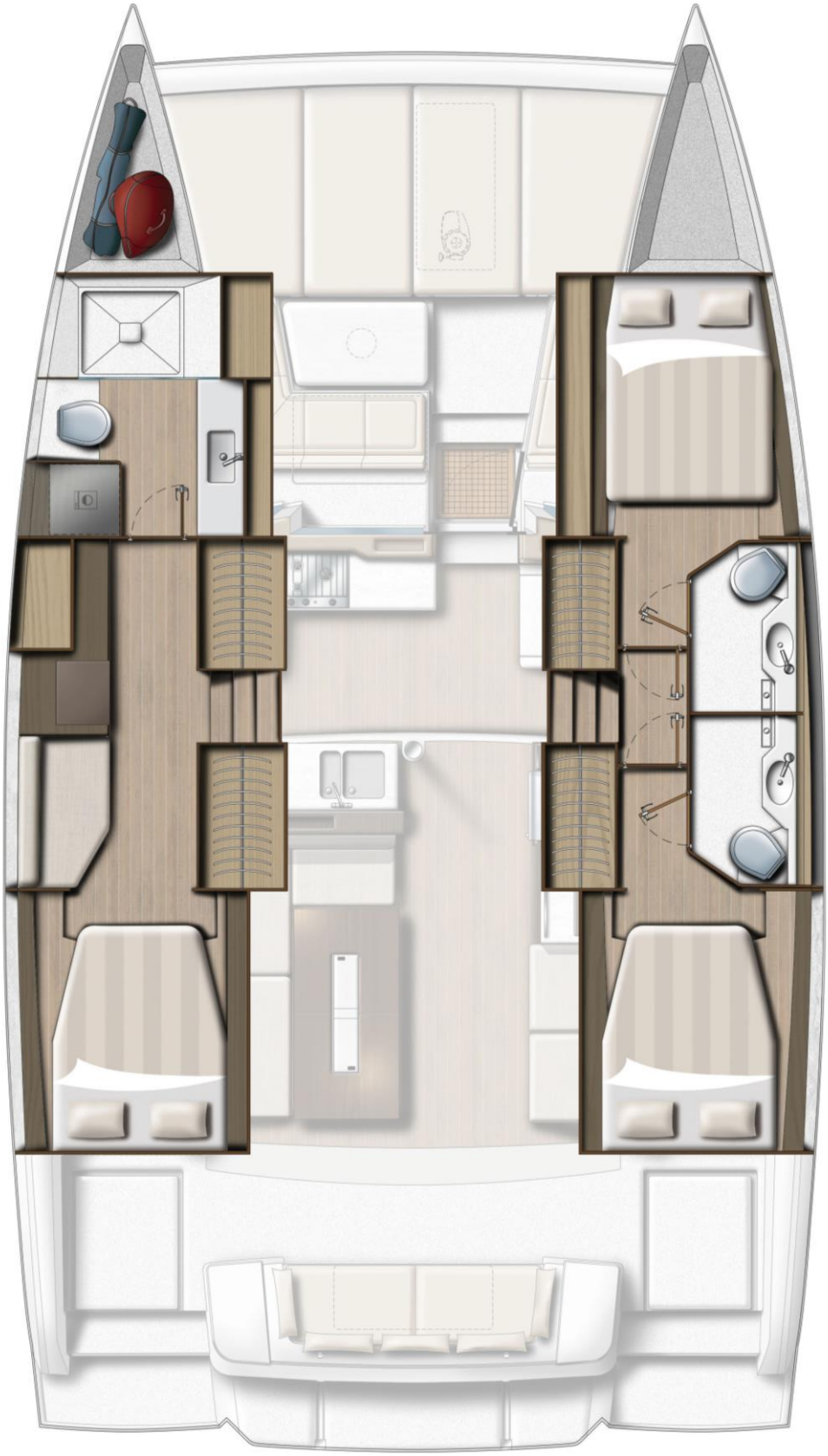
3-cabin, 3-bathroom version



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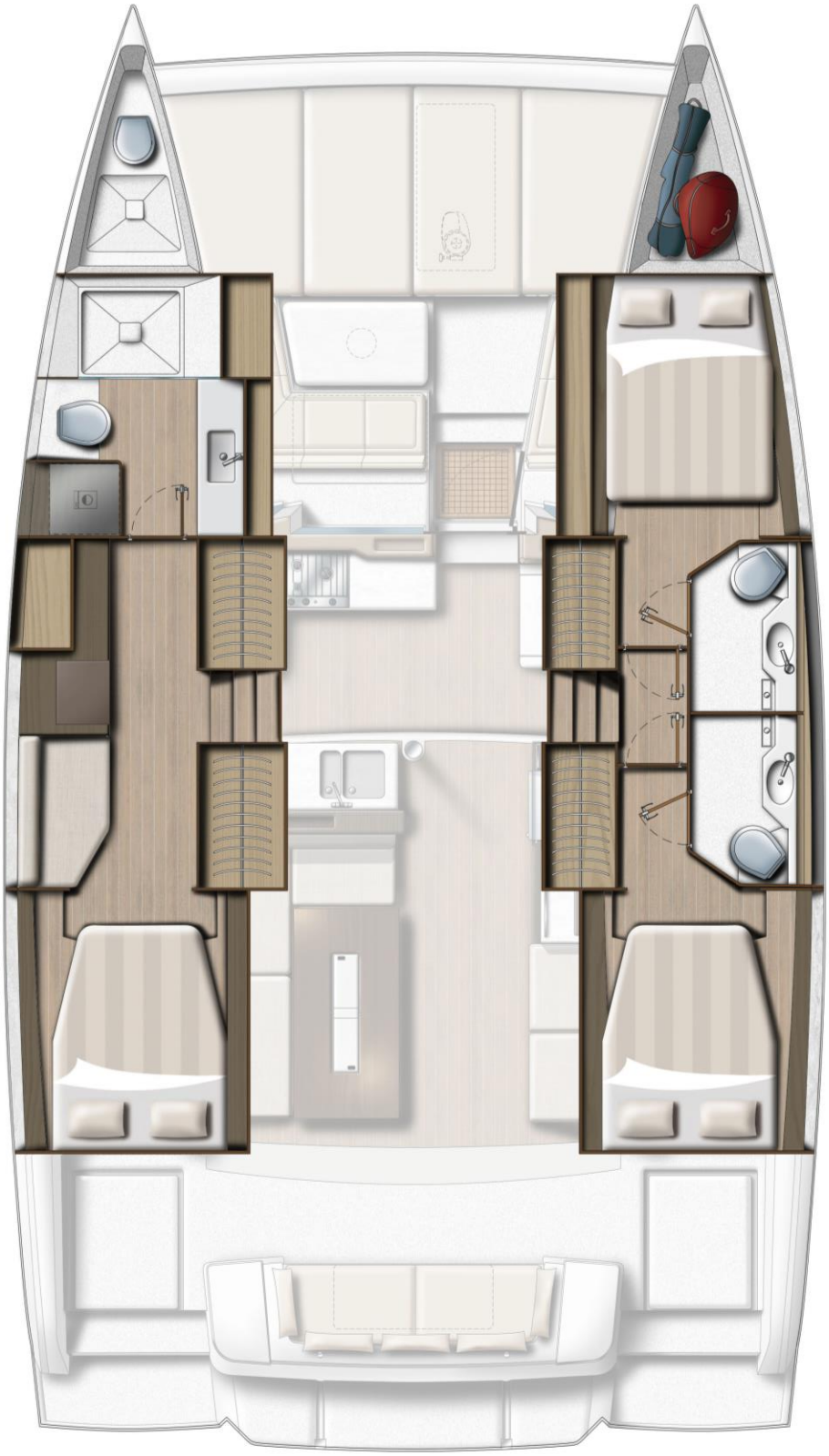
3-cabin, 3-bathroom, skipper bathroom version



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3-cabin, 3-WC, 2-shower version

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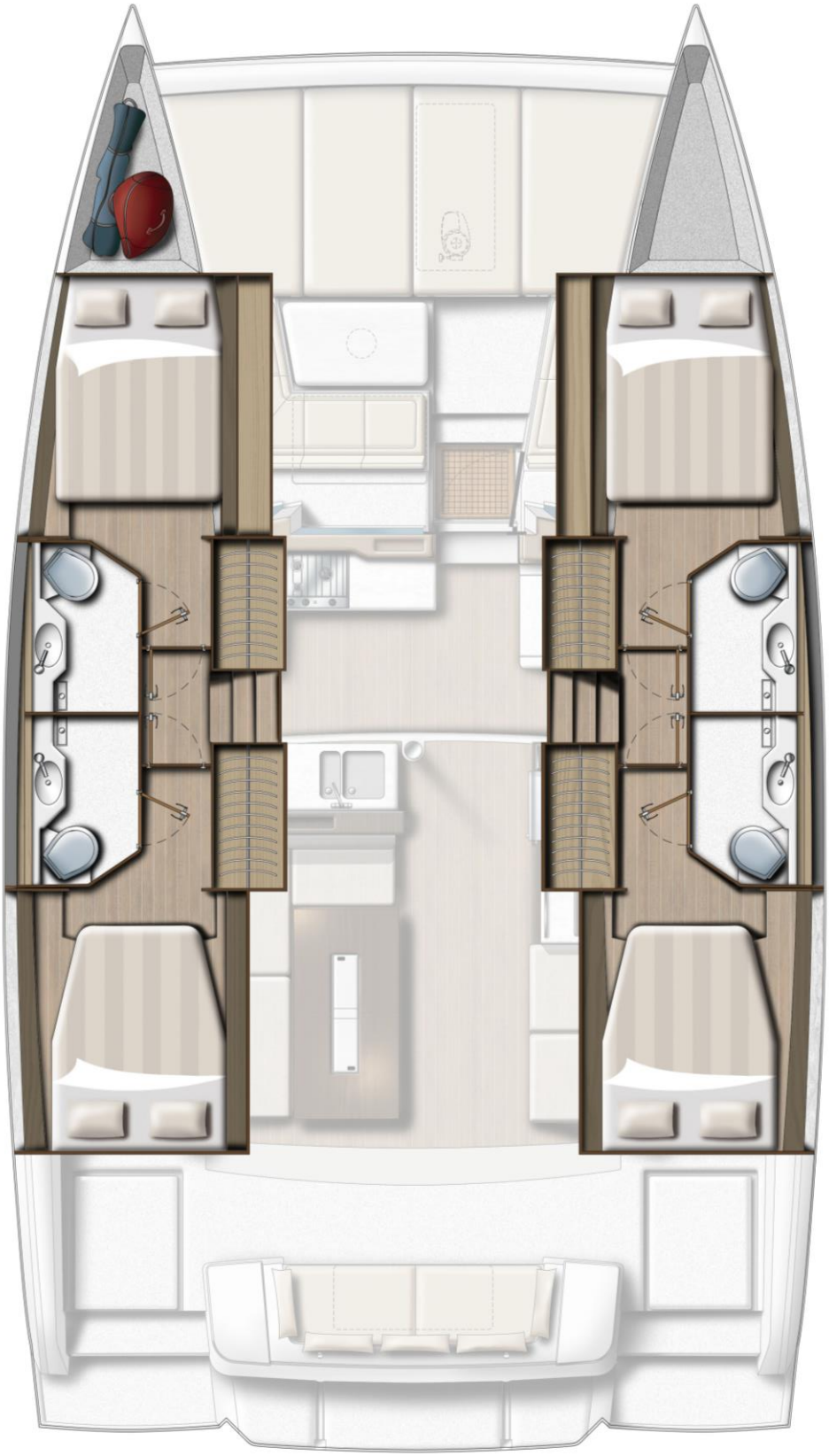
4-cabin, 4-bathroom version



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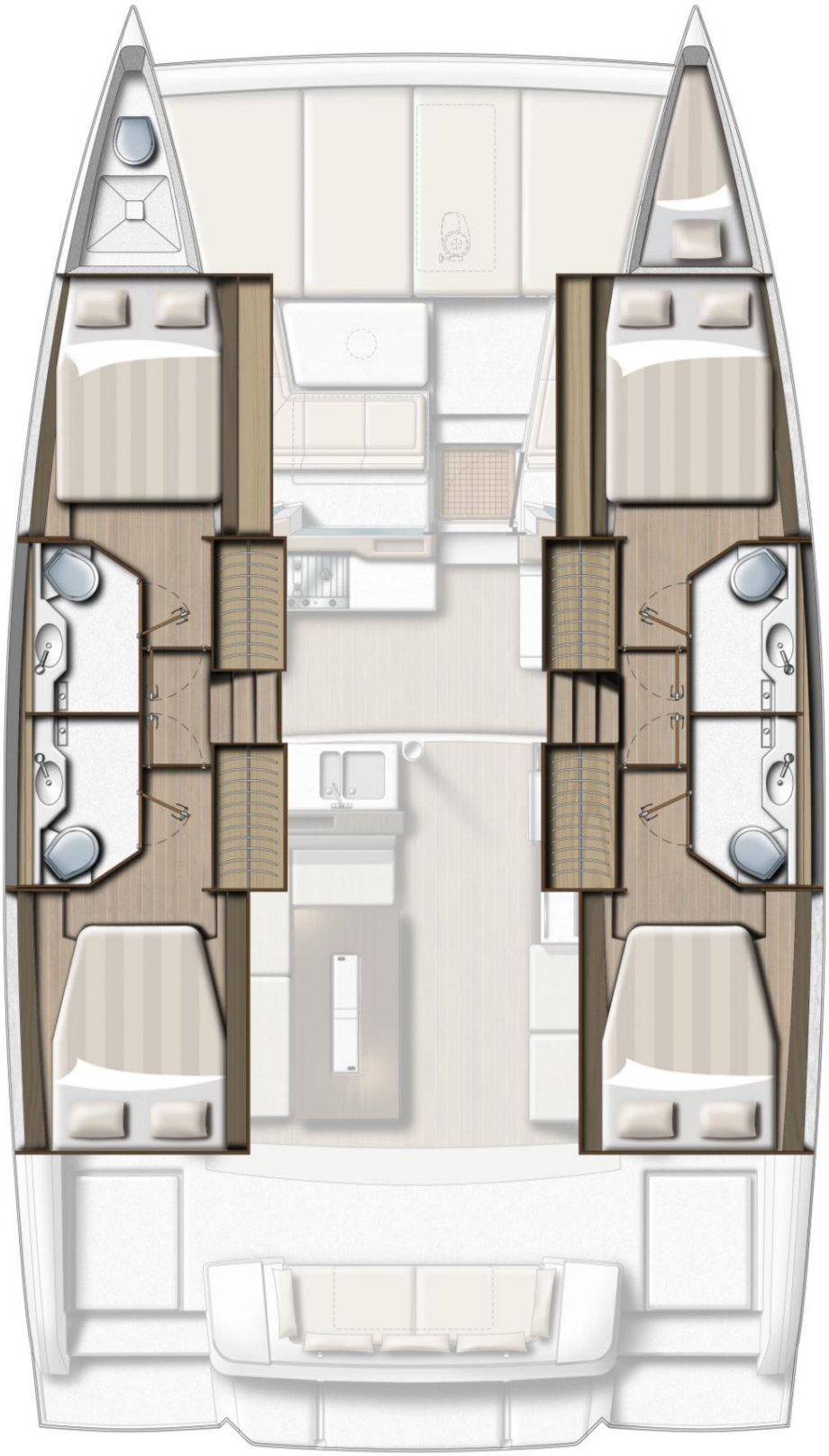
4-cabin, 4-bathroom, skipper bathroom version



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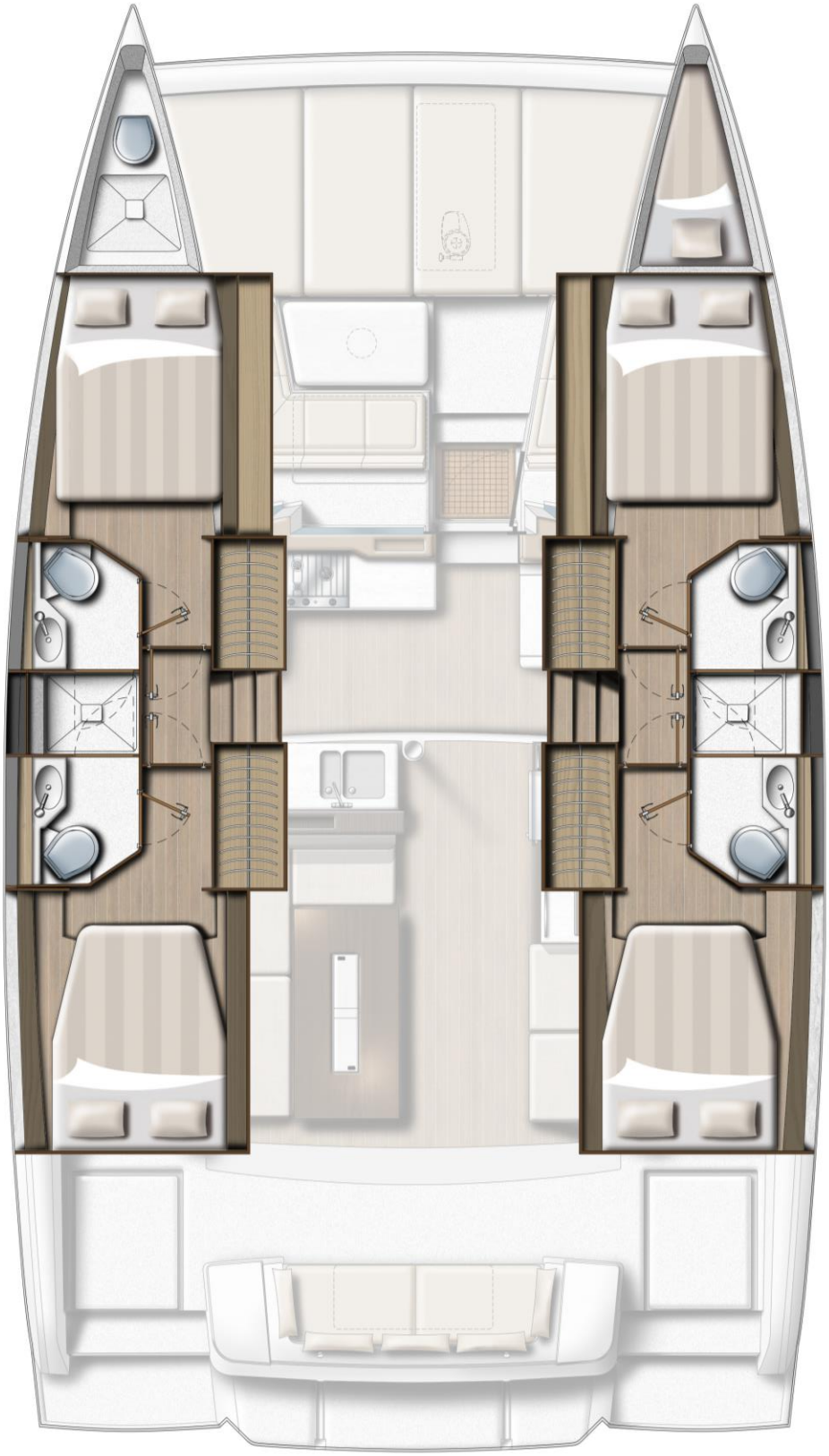
4-cabin, 4-WC, 2-shower, skipper bathroom version



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AMENAGEMENT		ACCOMMODATION	
Rep.	***Désignation***	***Ref.***	***Description***
	Version 3 cabines, 3 salles de bain : - Coursive bâbord avec aménagement propriétaire - 1 salle d'eau propriétaire - 3 cabines lit double - 2 salle d'eau invité avec WC Version 3 cabines, 3 salles de bain, 2 douches : -Coursive bâbord avec aménagement propriétaire. -1 salle d'eau propriétaire -3 cabines double -2 salles d'eau invité -1 douche Version 4 cabines, 4 salles de bain : - 4 cabines lit double - 4 salles d'eau invité avec WC Version 4 cabines, 4 salles de bain : - 4 cabines lit double - 4 salles d'eau - 2 douches		3 cabin, 3 bathroom version - Port passageway with owner's layout - 1 owner's bathroom - 3 double cabins - 2 guest bathrooms with WC 3 cabin, 3 bathroom, 2 shower version - Stbd passageway with owner's layout - 1 owner's bathroom - 3 double cabins - 2 guest bathrooms - 1 shower 4 cabin, 4 bathroom version - 4 double cabins - 4 guest bathrooms with WC 4 cabin, 4 bathroom version - 4 double cabins - 4 bathrooms - 2 showers

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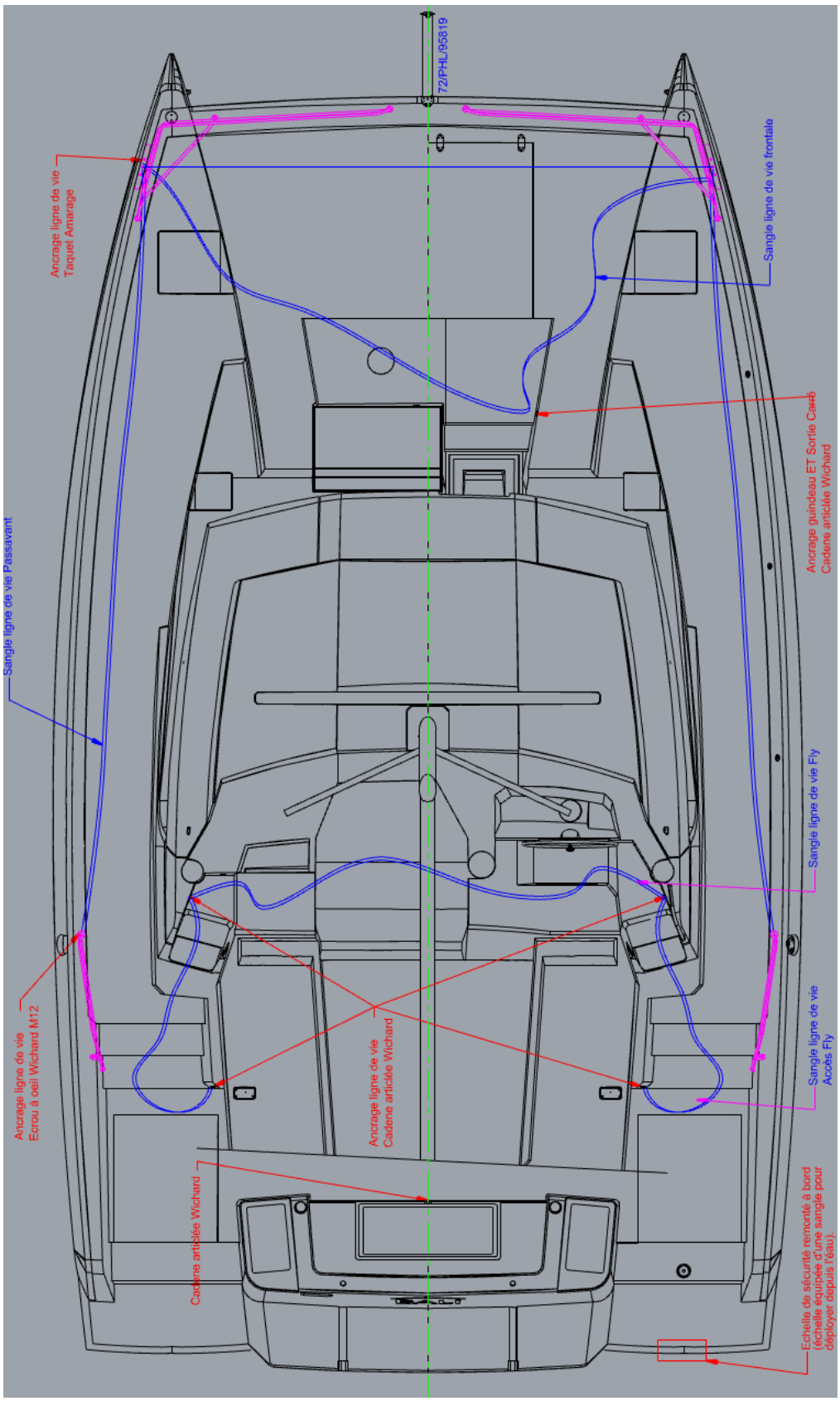

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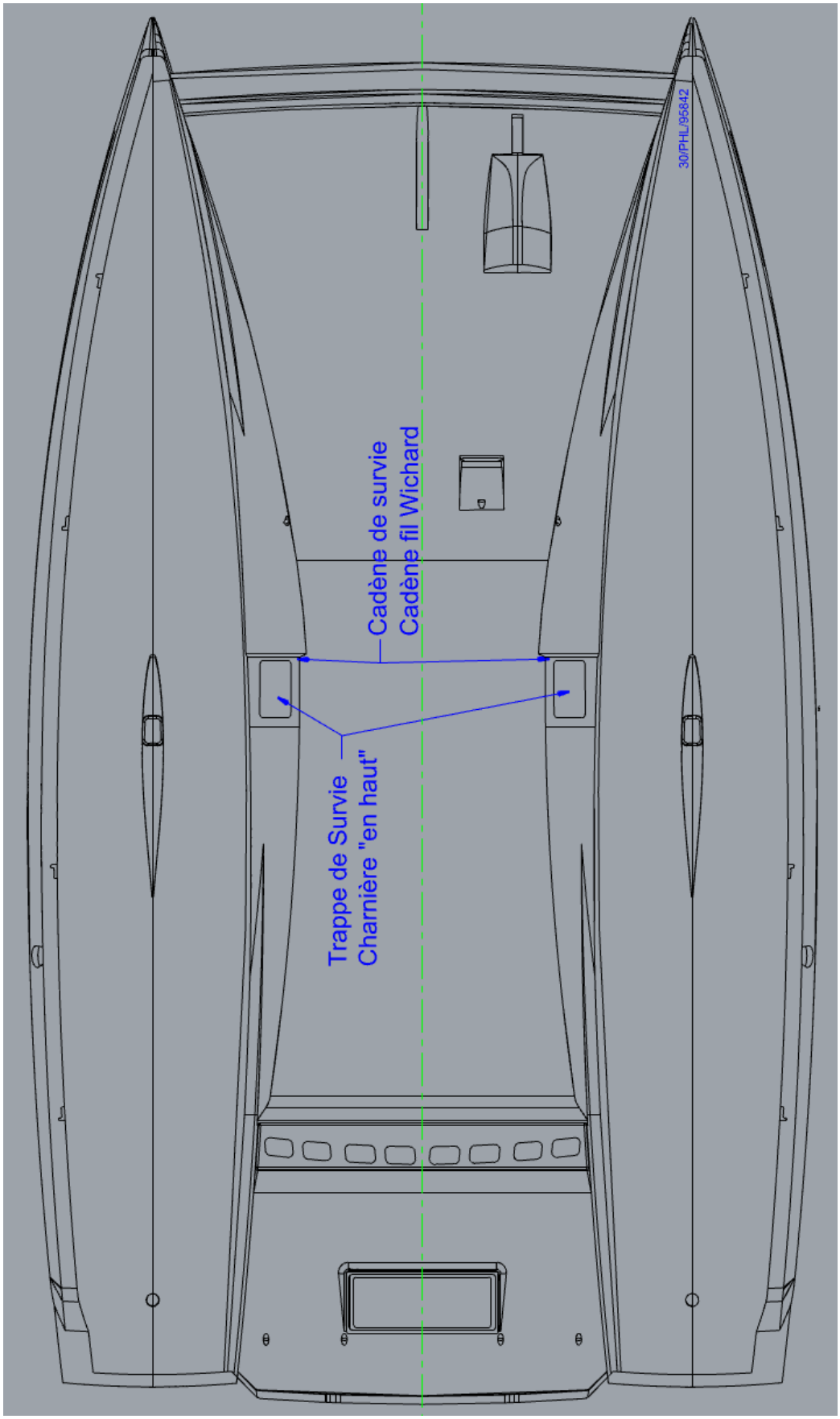

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Escape hatches under companionway steps

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ACCASTILLAGE		FITTINGS	
Rep.	***Désignation***	***Rep.***	***Description***
2	Ancrage poste de barre Cadène articulé	2	Articulated padeye at helm station
3	Sangle frappée sur la cadène "sortie de carré" dans le cockpit	3	Webbing strap on padeye in cockpit at saloon door
4	Sangle ligne de vie	4	Lifeline
5	Sangle frappée sur la cadène accès poste de barre	5	Webbing strap on padeye at helm station access
6	Ancrage ligne de vie Ecrou à œil Wichard M10	6	Attachment lifeline Wichard M10 eyebolt
7	Ancrage ligne de vie sur taquet d'amarrage	7	Attachment for lifeline on mooring cleat
8	Ecrou à œil	8	Eyebolt
9	Panneaux de survie	9	Escape hatch
10	Point d'accrochage sur la cadène	10	Securing point on padeye
11	Radeau conteneur	11	Container liferaft
12	Echelle repliable sur tableau arrière	12	Folding ladder on transom
13	Bouées de sauvetage	13	Lifebelts
14	Hublots et capot de pont impérativement fermés en navigation	14	Decks hatches (must be kept closed when under way)
15	Coffres impérativement fermés en navigation	15	Lockers (must be kept closed when under way)

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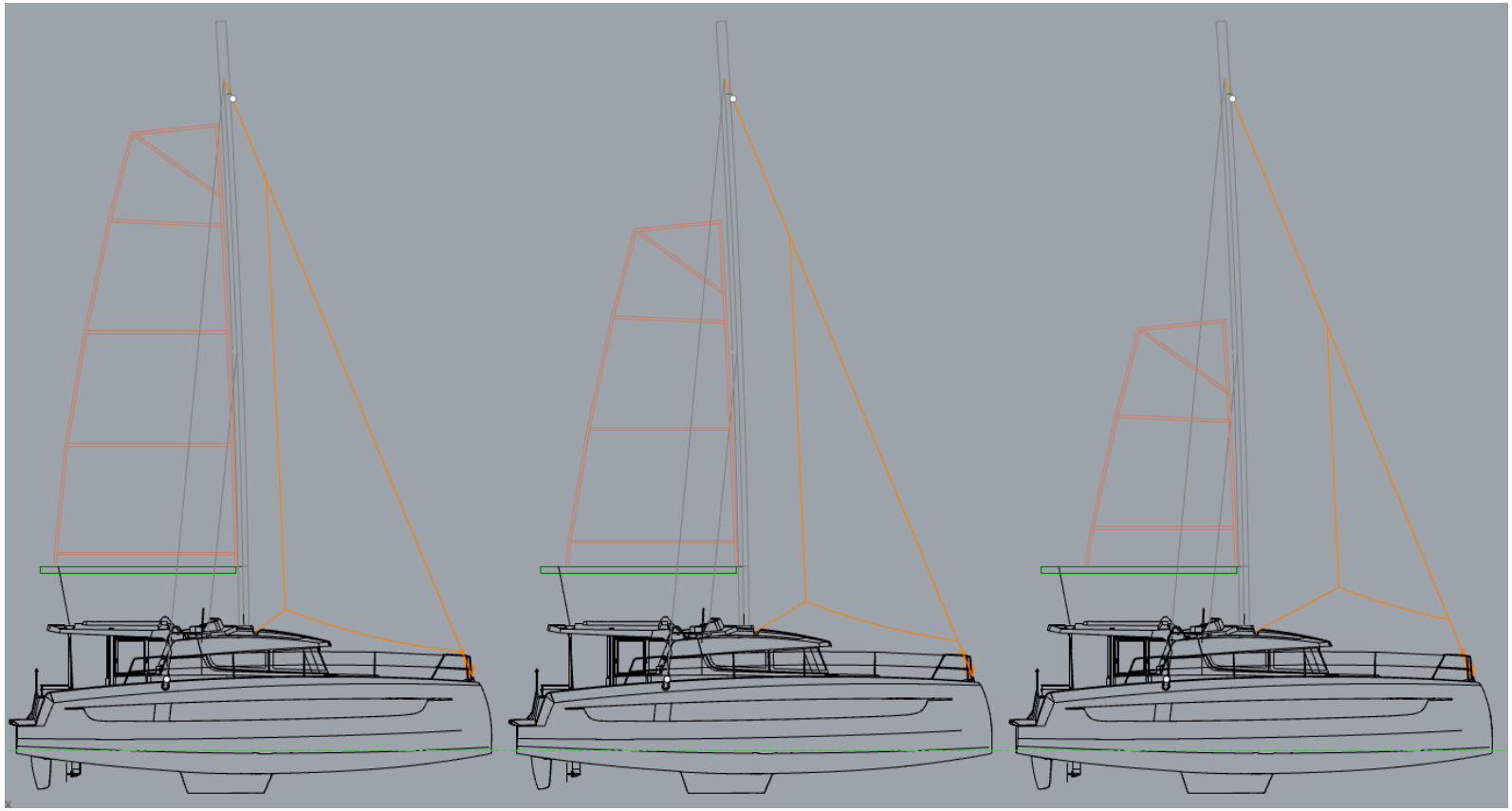

1st Reef: 20 kts	2nd Reef: 25 kts	3rd Reef: 35 kts

For information purposes only

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Plan for reducing sail (m²):

	Sail area m²
Full mainsail	49
1st Reef	37
2nd Reef	26
3rd Reef	15

Your Bali is equipped with a self-tacking headsail track with lateral adjustment. We draw your ATTENTION to the absence of any longitudinal adjustment. It is therefore impossible to move the sheeting angle forward. When the self-tacking solent is partially furled, you are advised to not sheet-in hard, as this could result in irreversible deformation of the foot of the sail.

The stability has been calculated for a vessel in minimal sailing condition M_{MOC} and in return sailing condition M_{LA}.

This boat is at risk of capsize or being swamped if carrying an excessive amount of sail. It is designed to not sink in such circumstances. Sail area must be reduced. Particular vigilance must be used in the case of conditions with gusty wind or squalls.

In the event of serious damage, use the emergency exits provided.
REFER TO PLAN N° 14, **ABANDONING SHIP**

Sail area should be reduced in accordance with boatspeed and wind strength. The following precautions should be observed:

- In the event of strong gusts RELEASE THE SHEETS
- Hard on the wind LUFF UP
- With the wind on the beam RELEASE THE SHEETS
- Downwind BEAR AWAY

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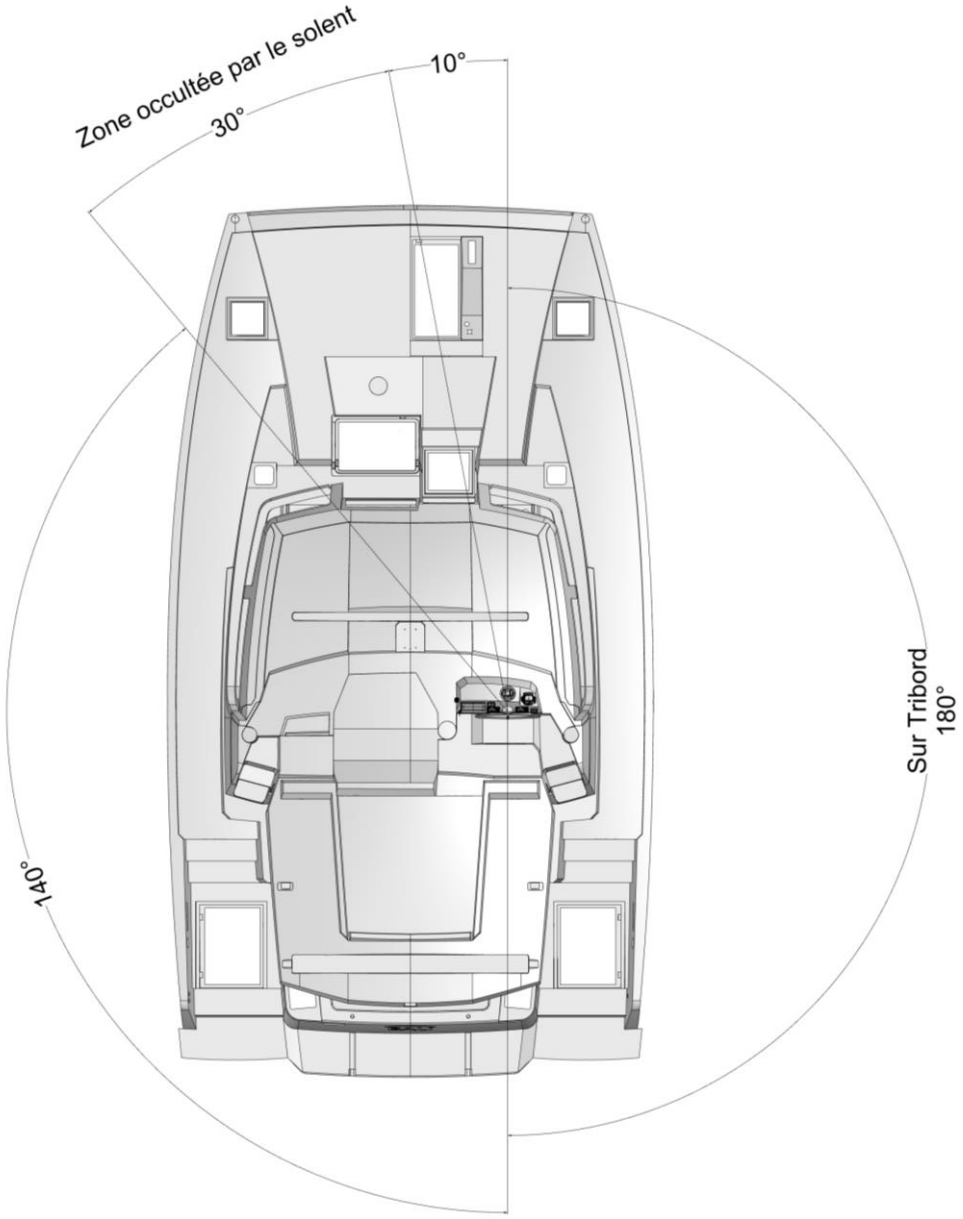

The operator's view from the helm-station may be obscured by one or more of the following variable conditions:

- Vessel load and distribution of the load
- Speed
- Sea conditions
- Reduced visibility (eg. by rain, darkness or fog)
- Reduced visibility (by sail changes and hoisting of sails)
- Interior lighting inside the boat
- Position of covers or curtains
- Persons or movable equipment located within the helmsman's field of vision

CAUTION
- It is recommended that the autopilot be engaged to allow the helmsman to be able to move in order to have a clear 360° view.

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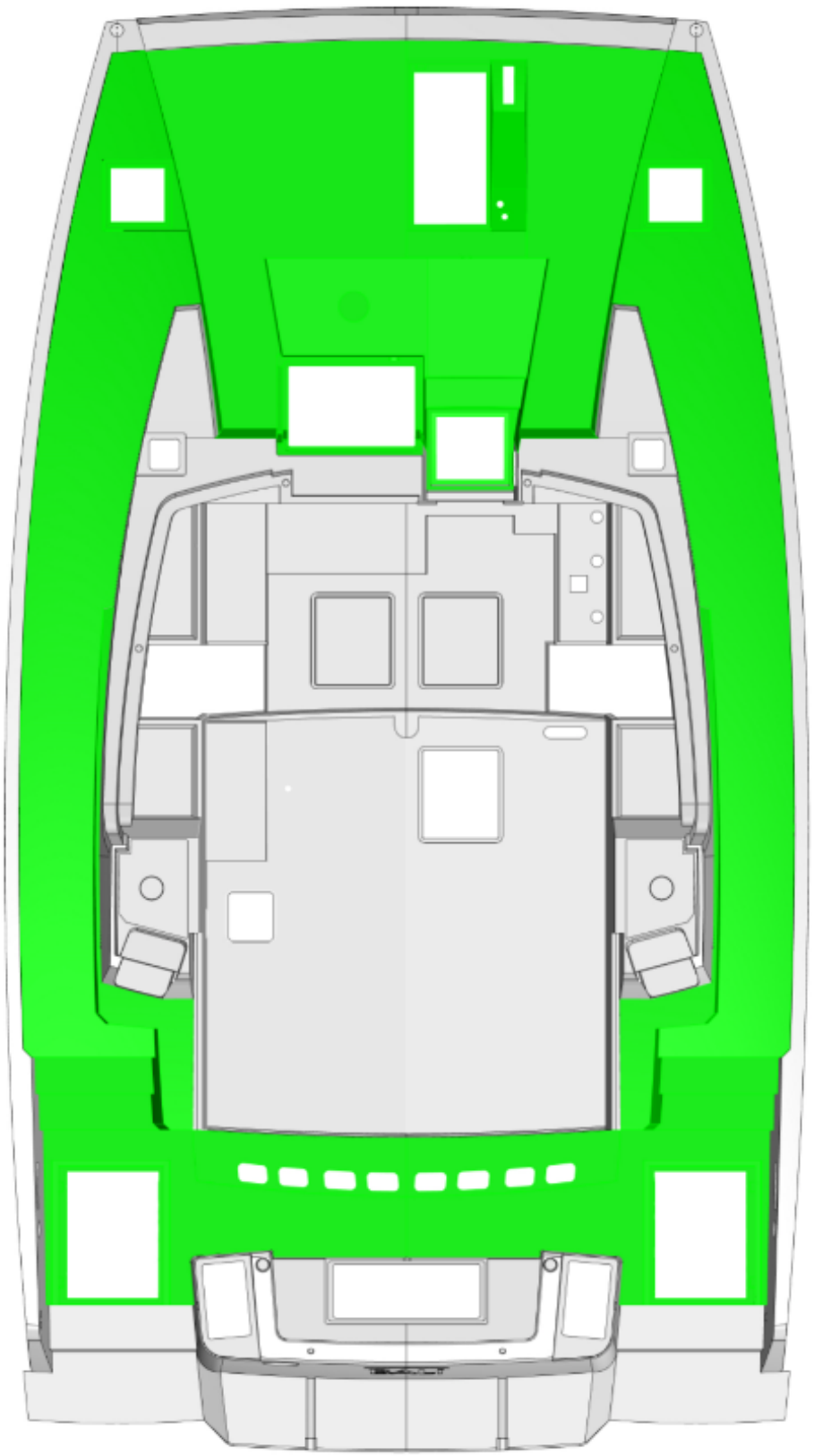

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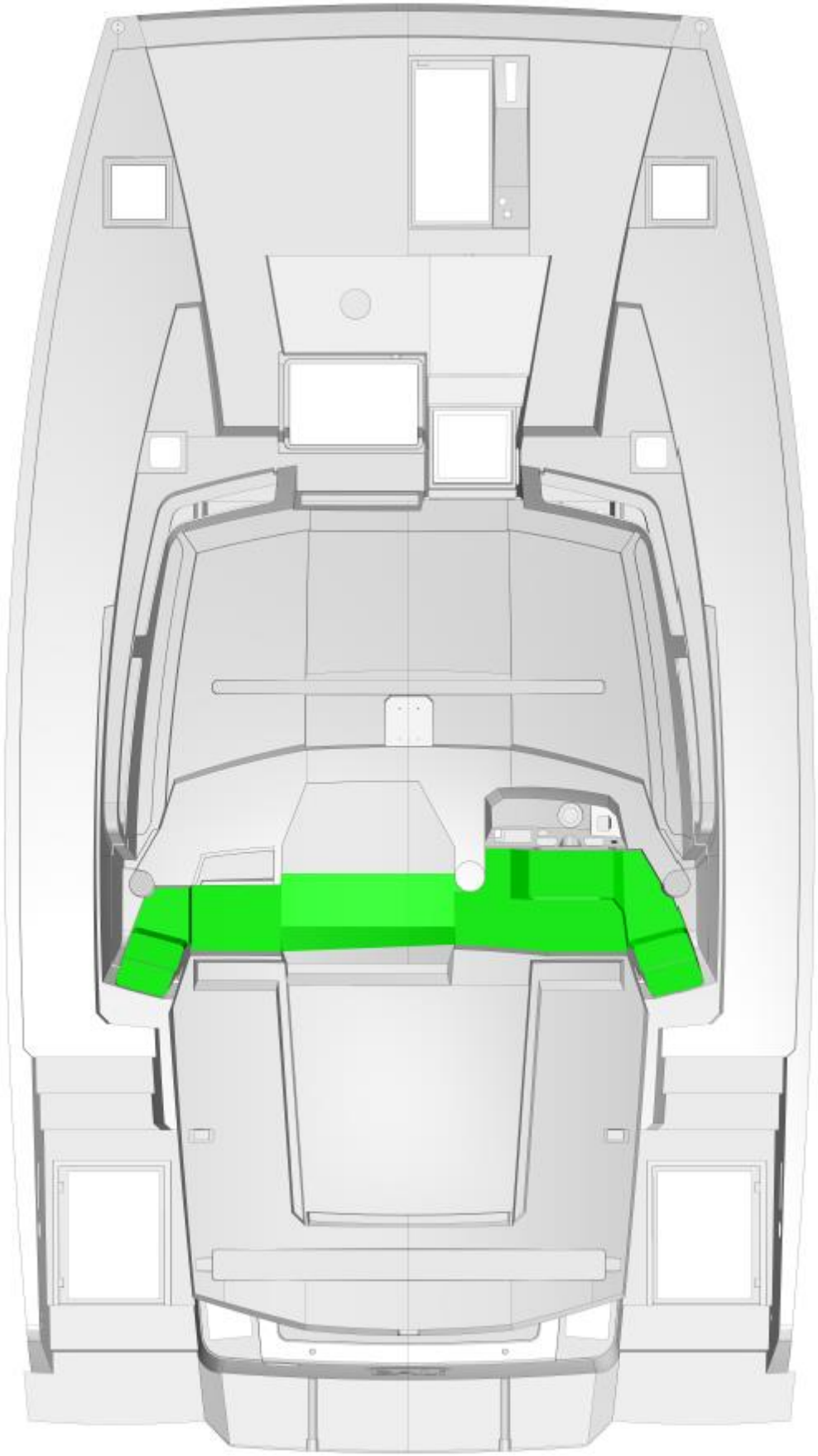

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	ZONE DE TRAVAIL		
Rep.	***Désignation***	***Ref.***	***Description***
	ZONE DE TRAVAIL PONT : Environ 33.92m²		DECK WORKING AREA Approx. 33.92 m²
			
	ZONE DE TRAVAIL ROOF : Environ 3.28m²		COACHROOF WORKING AREA Approx. 3.28 m²
			
	 Attention **DANGER**		 Attention **DANGER**
	EN NAVIGATION :		**UNDER WAY:**
	L'ACCES ET L'UTILISATION SONT INTERDITS A TOUTES PERSONNES SUR LE BIMINI, FLY ET LE ROOF		**ACCES TO AND USE OF THE BIMINI, FLYBRIDGE AND COACHROOF IS PROHIBITED FOR ALL PERSONS**

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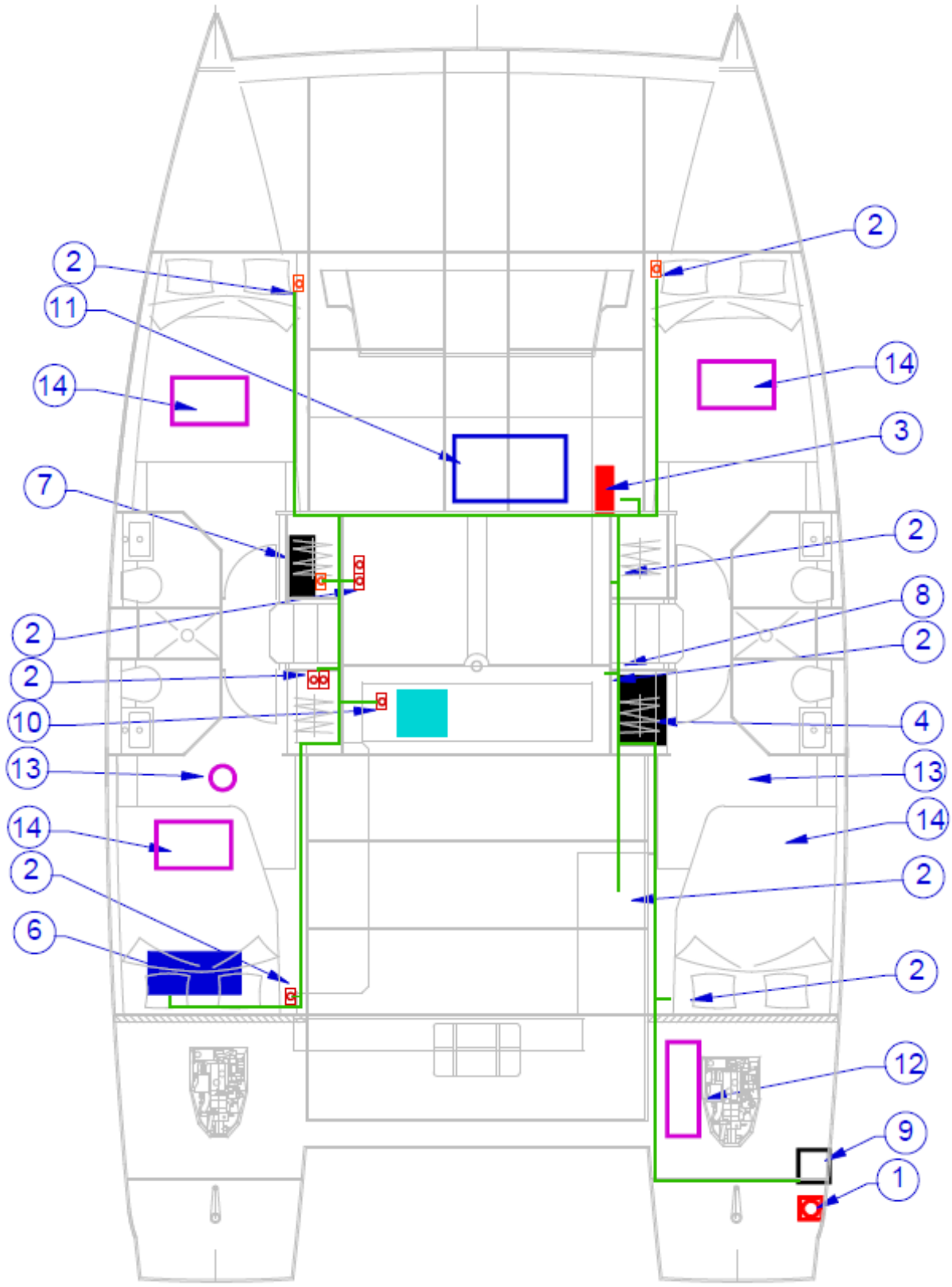
4-cabin, 4-bathroom version



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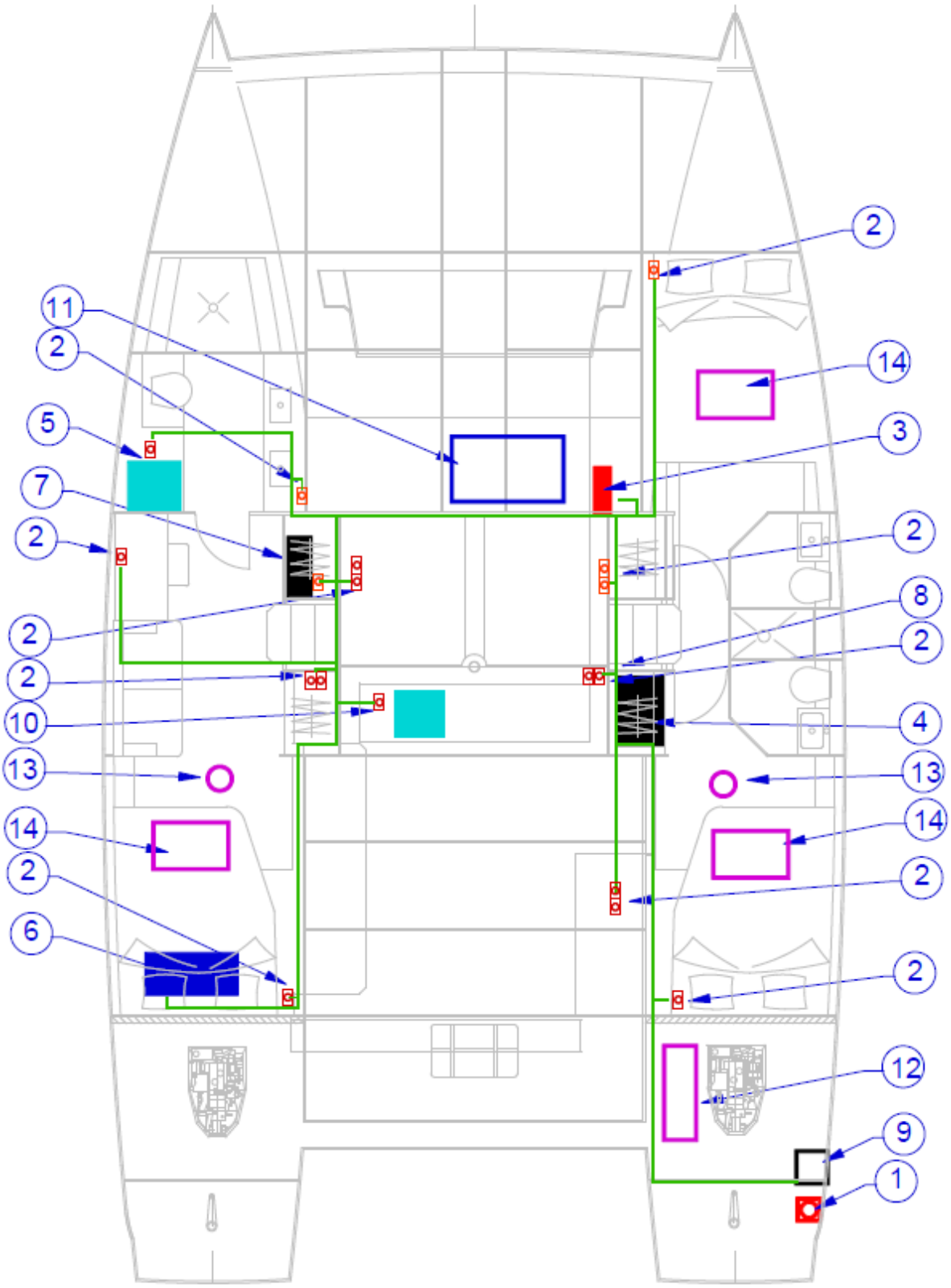

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IMPLANTATION ELECTRIQUE 220 V		220 V ELECTRICAL INSTALLATION	
Rep.	***Désignation***	***Ref.***	***Description***
1	Prise de quai 220v	1	220V shore power
2	Price de courant AC	2	AC socket
3	Tableau AC	3	AC panel
4	Réfrigérateur	4	Refrigerator
5	Machine à laver le linge*	5	Washing machine*
6	Chauffe-eau	6	Water heater
7	Micro-ondes*	7	Microwave*
8	Prise Frigo	8	Refrigerator socket
9	Coffret prise de quai	9	Shore power locker
10	Lave-vaisselle*	10	Dishwasher*
11	Groupe électrogène*	11	Generator*
12	Dessalinisateur 240L/hr*	12	240L/h Watermaker*
13	Pompe climatisation*	13	Aircon pump*
14	Groupe climatisation*	14	Aircon unit*
	*Option		* Option

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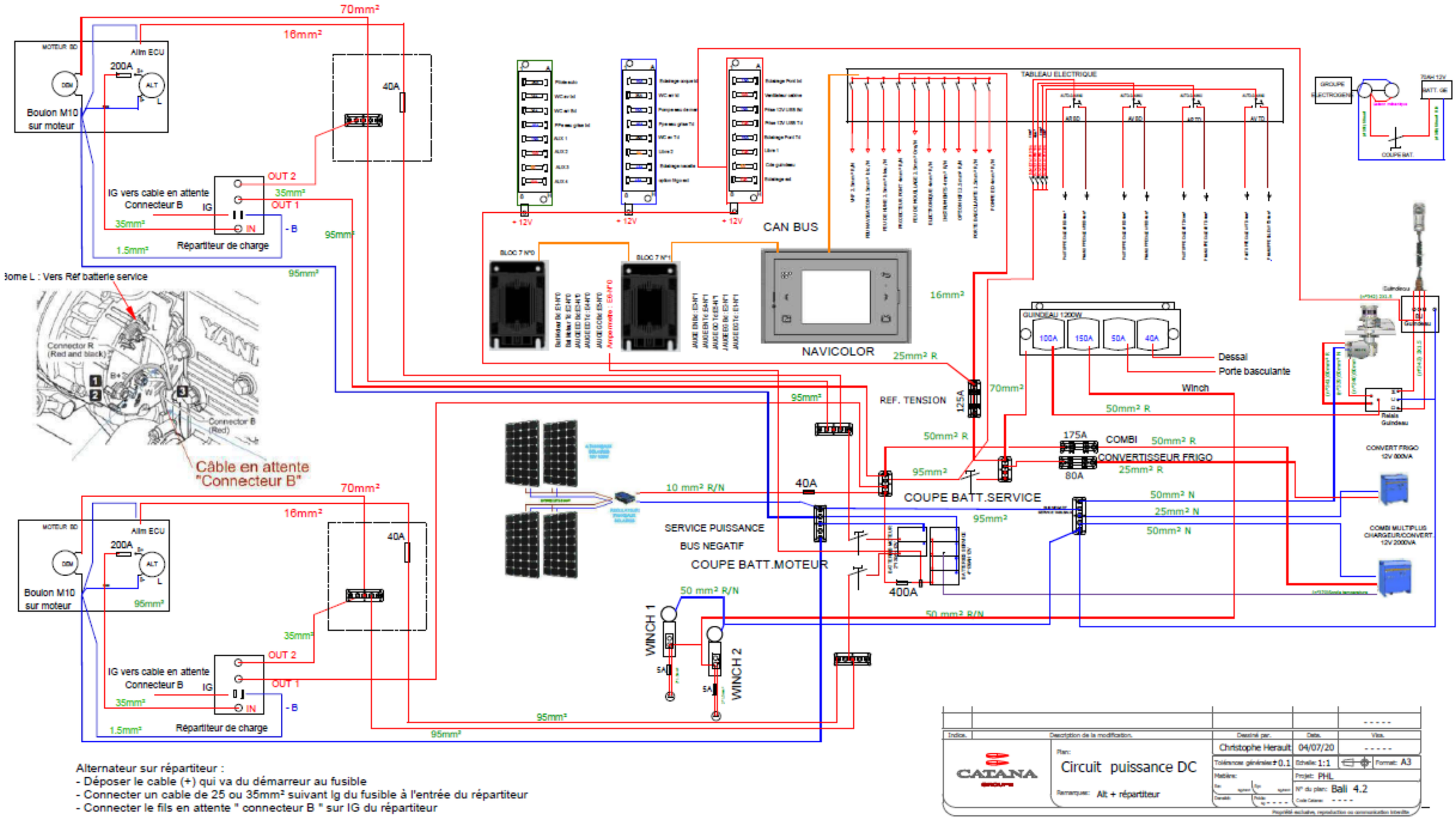
DC power cluster



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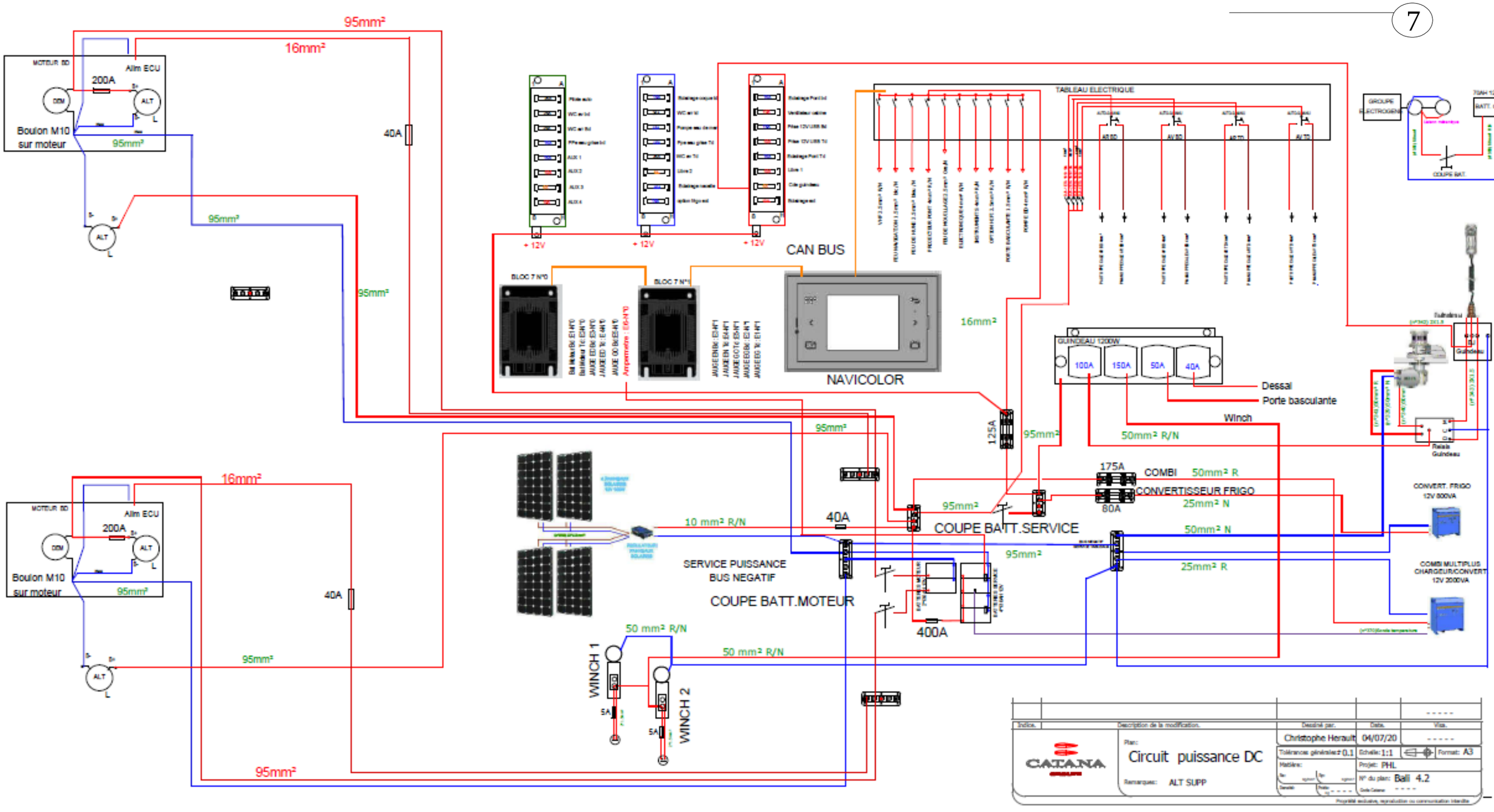

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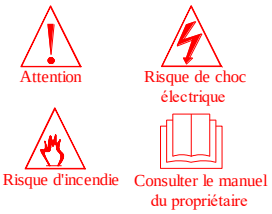
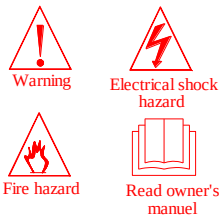
TABLEAU ELECTRIQUE 12V		12V ELECTRICAL PANEL	
Rep.	***Désignation***	***Ref.***	***Description***
1	TABLEAU 12 V DC TAC	1	12 V DC TAC PANEL
1	Groupe d'eau douce : 10A	1	Fresh water pump: 10A
2	Pompe eau grises : 15A	2	Grey water pump: 15A
3	Feu de pont : 15A	3	Deck light: 15A
4	Feu de navigation : 10A	4	Navigation lights: 10A
5	Feu de mouillage : 10A	5	Anchor light: 10A
6	Feu de hune : 10A	6	Steaming light: 10A
7	Porte basculante : 10A	7	Aft door: 10A
8	Centrale navigation : 15A	8	Navigation computer: 15A
9	Pilote automatique : 20A	9	Autopilot: 20A
10	VHF : 10A	10	VHF: 10A
11	Divers : 10A	11	Various: 10A
12	Hifi / PC 12V : 10A	12	HiFi/PC 12V: 10A





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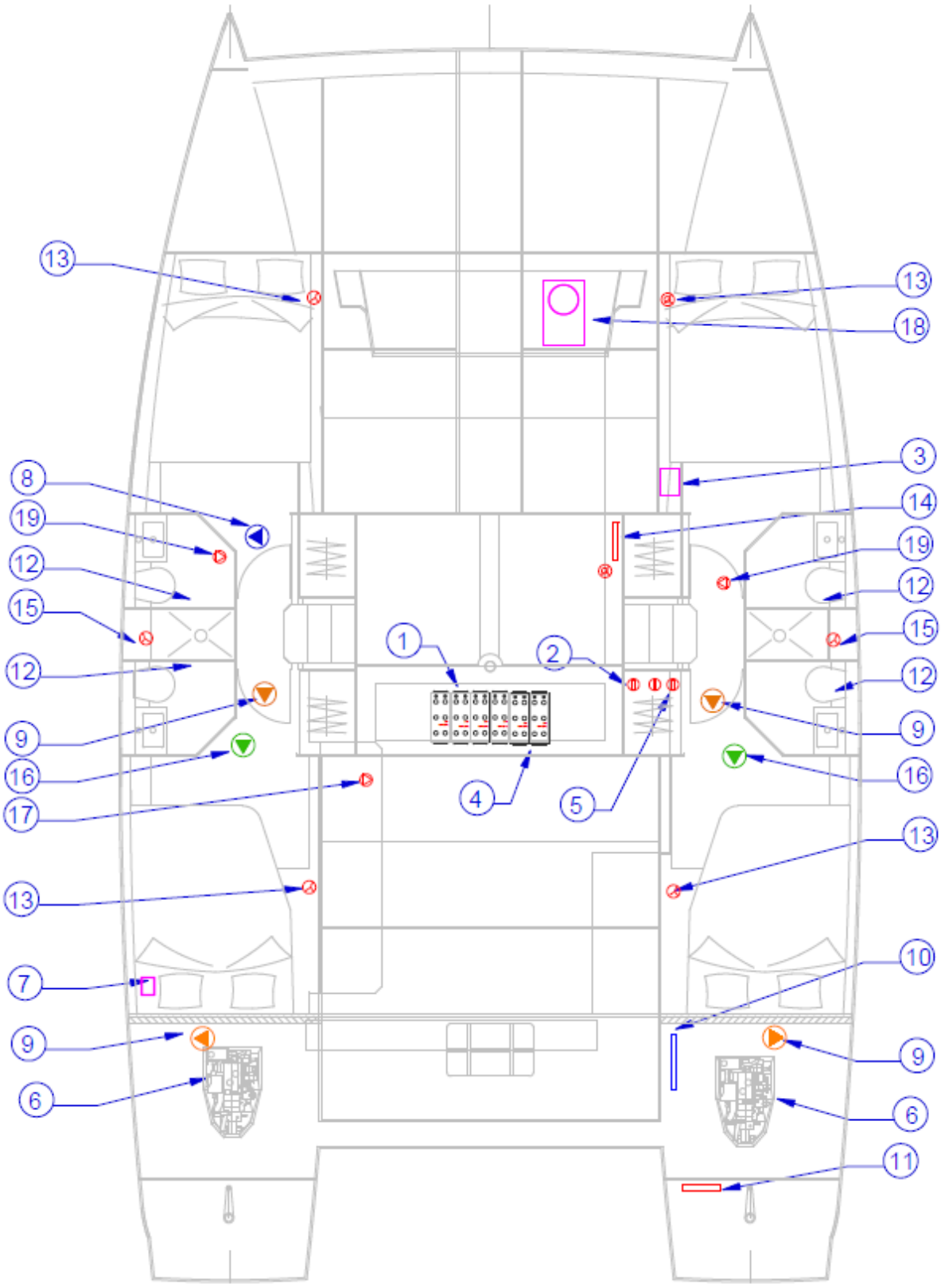
4-cabin, 4-bathroom version



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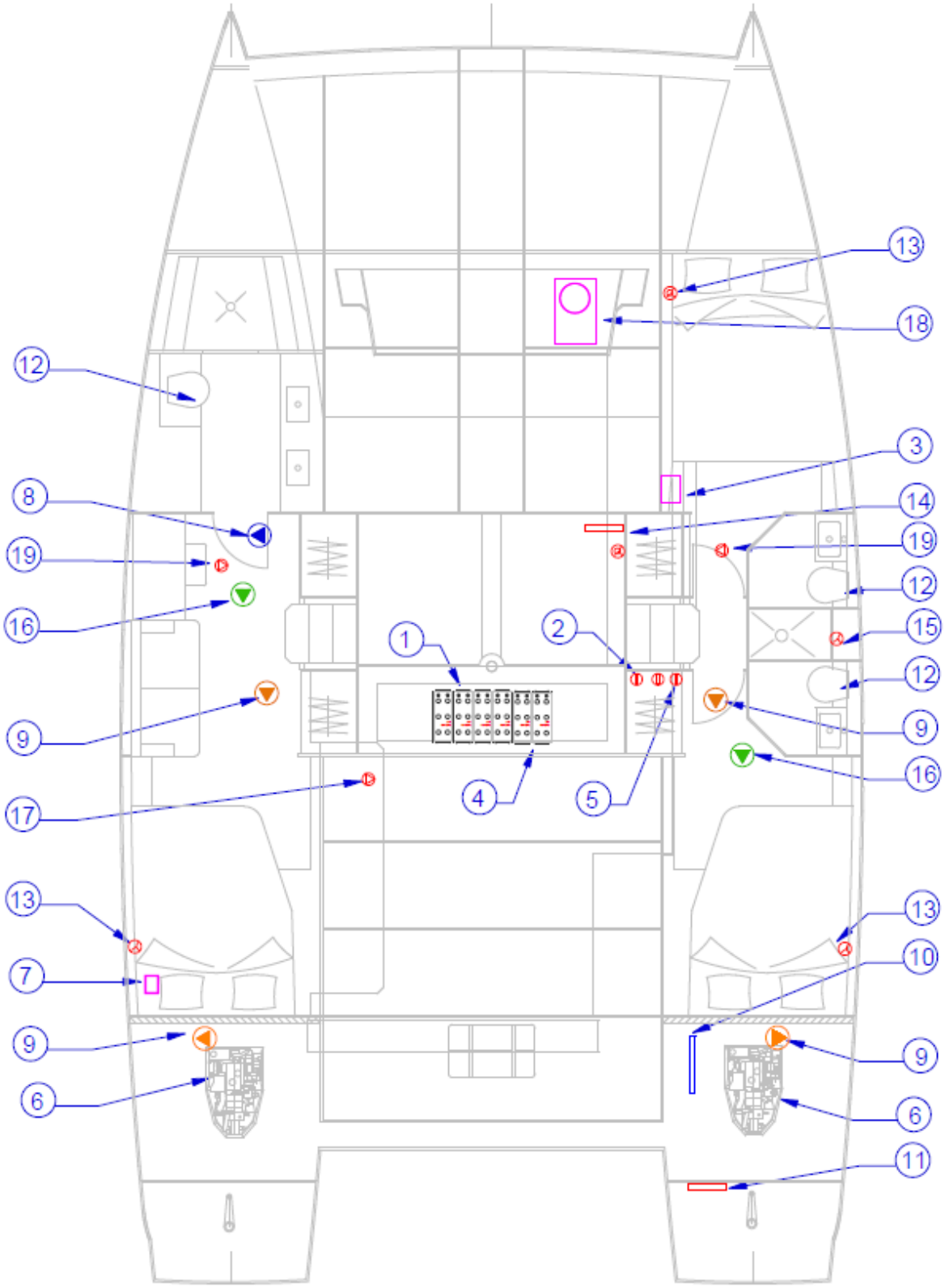

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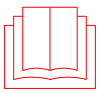
IMPLANTATION 12 V DE COQUE		12 V ELECTRICAL INSTALLATION	
Rep.	***Désignation***	***Ref.***	***Description***
1	Batterie de service (2x130Ah) **	1	Service batteries (2x130Ah) **
2	Coupe batterie servitude	2	Service battery cut-off switch
3	Convertisseur/chargeur 12V/220V/70A	3	12V/220V/70A Inverter-Charger
4	Batterie moteur (2 x 130 Ah)	4	Engine starter battery (2 x 130 Ah)
5	Coupe batterie moteur	5	Engine battery cut-off switch
6	Alternateur moteur	6	Engine alternator
7	Groupe d'eau douce	7	Fresh water pump
8	Pompe d'eau de mer	8	Seawater pump
9	Pompe de cale	9	Electric bilge pump
10	Pompe centrale hydraulique porte*	10	Hydraulic pump unit for aft door*
11	Pilote automatique	11	Autopilot
12	WC électrique *	12	Electric WC*
13	Prise 12V	13	12V Socket
14	Tableau élec TAC + bornier de connexion	14	AC Electrical panel + connection terminal
15	Capteur HT	15	HT Sensor
16	Pompe eaux grises	16	Grey water pump
17	Jauge réservoir eaux douces	17	Fresh water tank gauge
18	Guindeau	18	Windlass
19	Jauge réservoir Gasoil	19	Diesel tank gauge
	*Option		*Option
	**Option (2x130Ah)		**Option (2x130Ah)


Attention


Risque de choc électrique

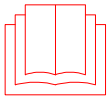

Risque d'incendie


Consulter le manuel du propriétaire


Warning


Electrical shock hazard


Fire hazard


Read owner's manuel

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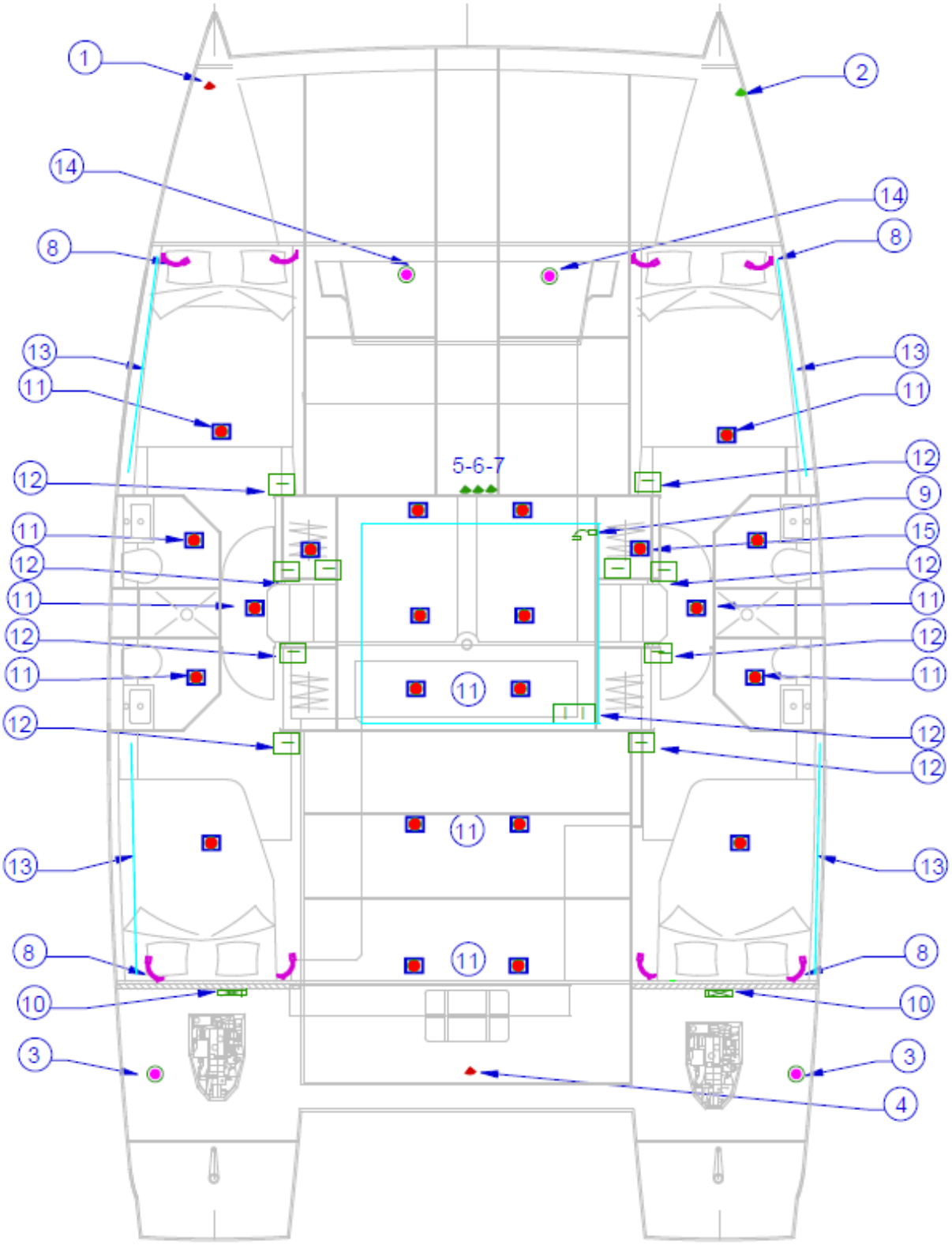
4-cabin, 4-bathroom version



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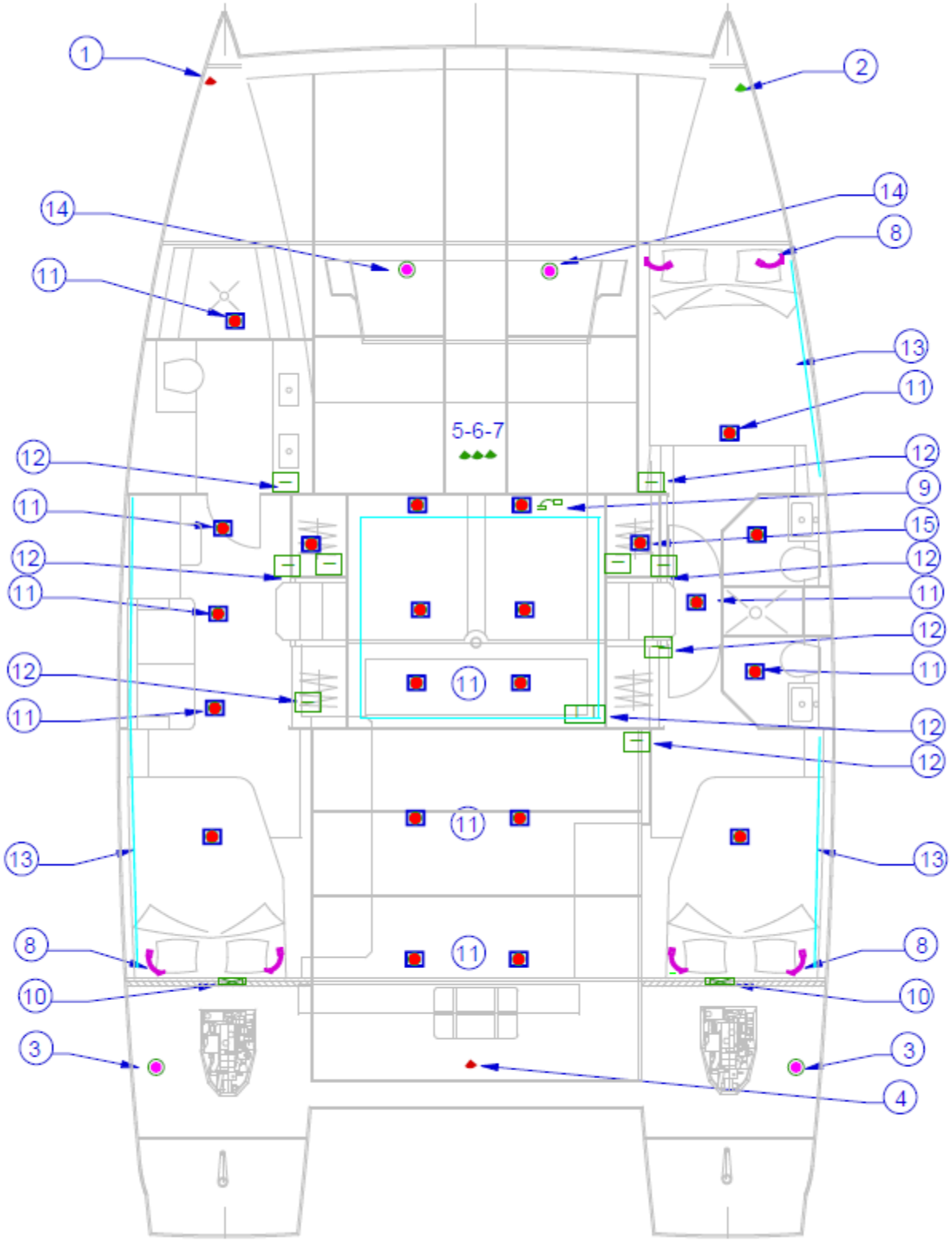
3-cabin, 3-bathroom version



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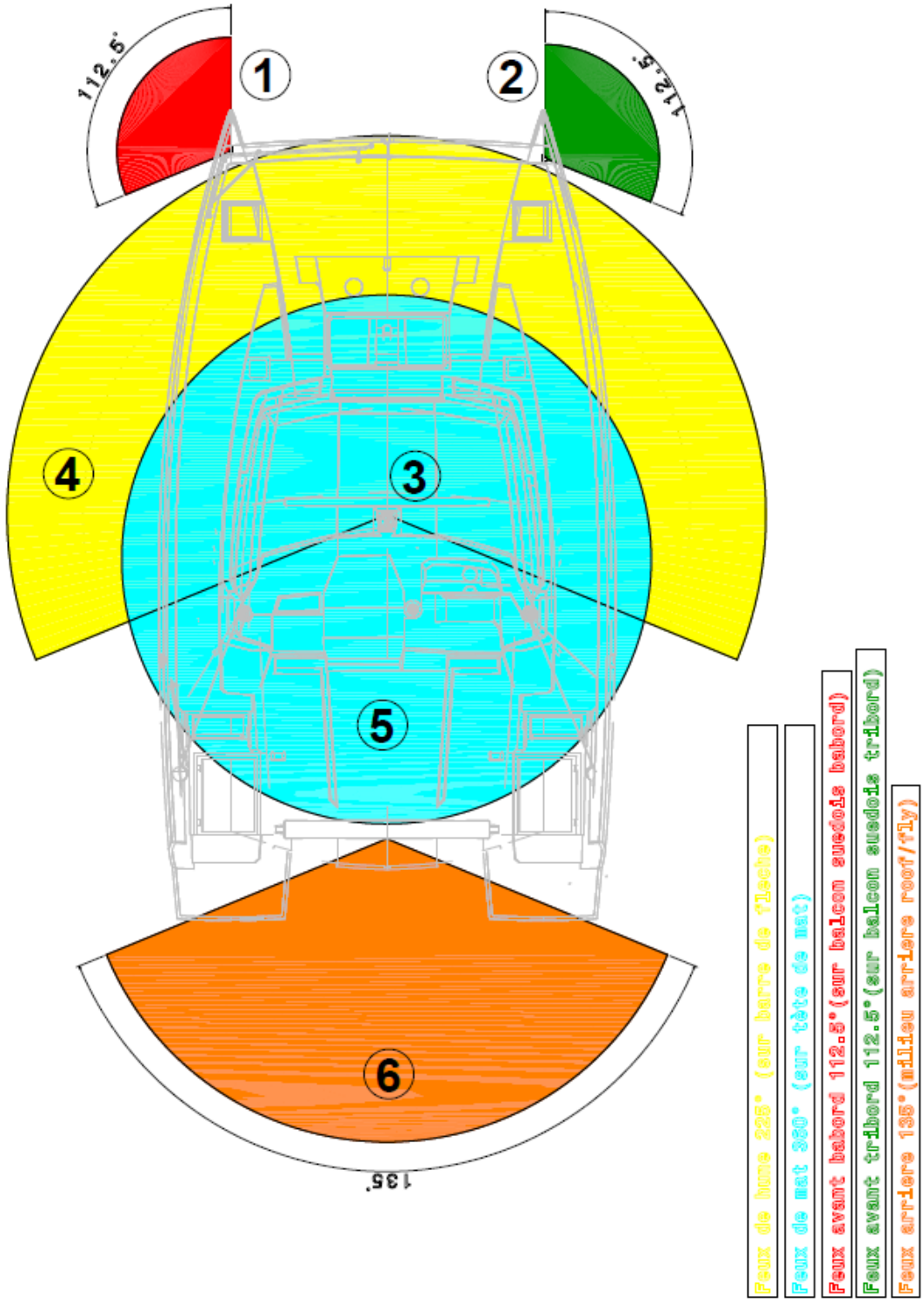

Steaming light 225° (on the spreaders)
All-round white masthead light 360°
Port light 112.5° (on port forward pulpit)
Starboard light 112.5° (on starboard forward pulpit)
Sternlight 135° (centred aft on coachroof/flybridge)

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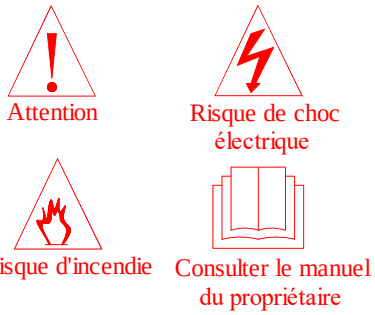
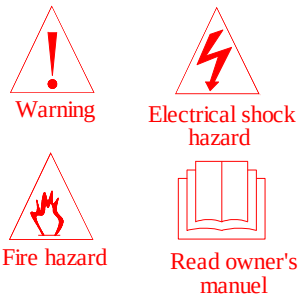
IMPLANTATION 12 V PONT		12 V ELECTRICAL INSTALLATION	
Rep.	***Désignation***	***Ref.***	***Description***
1	Feu de Navigation. Bd	1	Port navigation light
2	Feu de Navigation. Td	2	Starboard navigation light
3	Eclairage courtoisie jupe	3	Sugarscoop courtesy lighting
4	Feu de poupe	4	Sternlight
5	Feu de hune	5	Steaming light
6	Feu de mouillage	6	Anchor light
7	Feu de pont	7	Decklight
8	Liseuse	8	Reading light
9	Liseuse table à cartes	9	Chart table reading light
10	Eclairage moteur led	10	LED engineroom light
11	Plafonnier encastré à leds	11	Recessed LED ceiling lights
12	Inter simple	12	Single switch
13	Bandeau leds courtoisie	13	LED courtesy striplight
14	Eclairage courtoisie cockpit avant	14	Fwd cockpit courtesy lighting
15	Lampe de bureau	15	Desklamp





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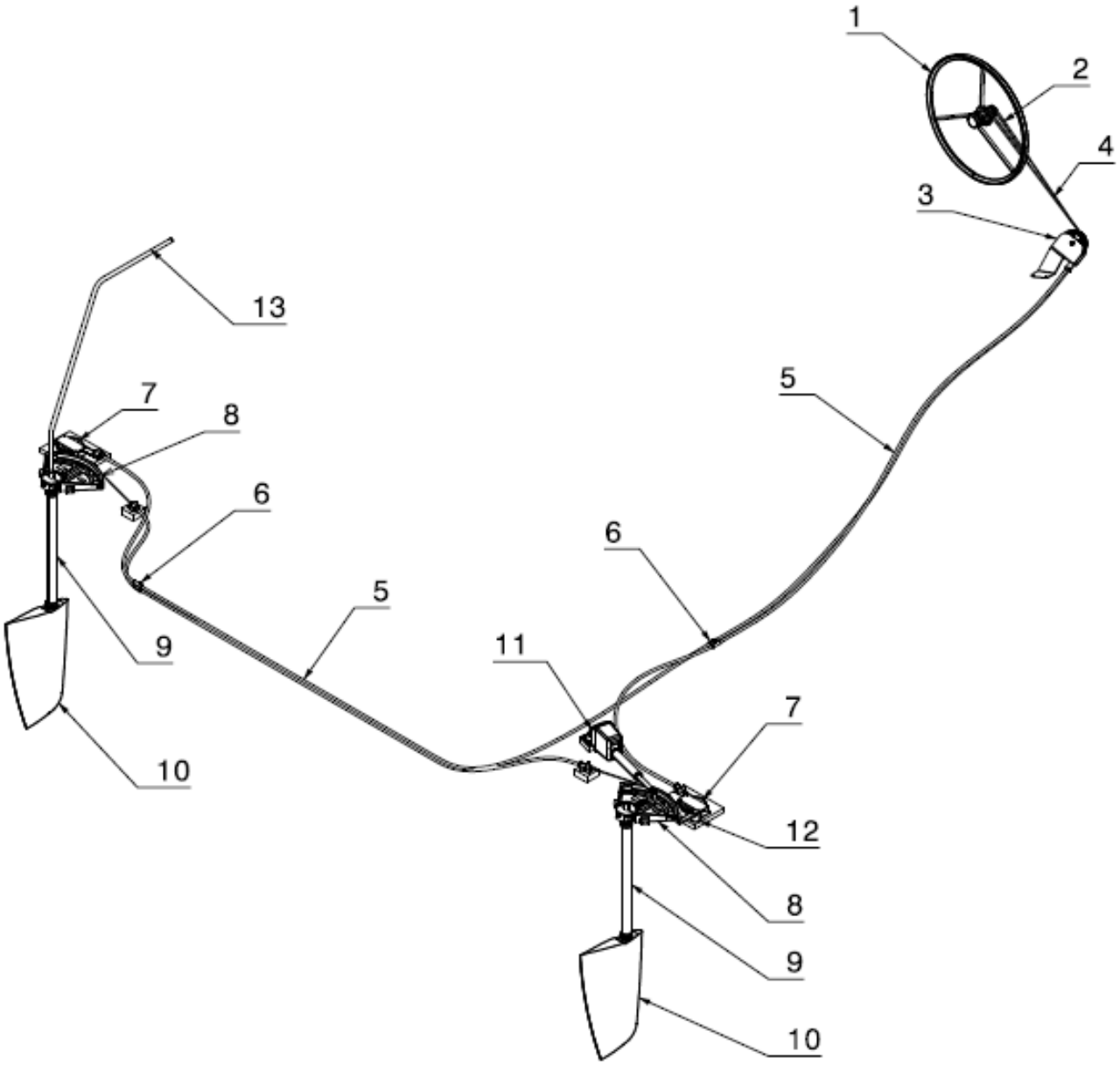

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SYSTEME DE GOUVERNAIL		STEERING SYSTEM	
Rep.	***Désignation***	***Ref.***	***Description***
1	Barre à Roue	1	Steering wheel
2	Moyeu + chaine"	2	Hub + chain
3	Poulies de renvoi + support poulies	3	Return blocks + support blocks
4	Drosse inox 7x19 D5	4	7x19 D5 S/S cables
5	Gaines	5	Conduits
6	Graisseurs	6	Grease nipples
7	Poulie de renvoie	7	Return block
8	Secteur	8	Quadrant
9	Tube jaumière	9	Rudder tube
10	Safran	10	Rudder blade
11	Pilote automatique	11	Autopilot
12	Rudder	12	Helm angle indicator
13	Barre franche de secours	13	Emergency tiller

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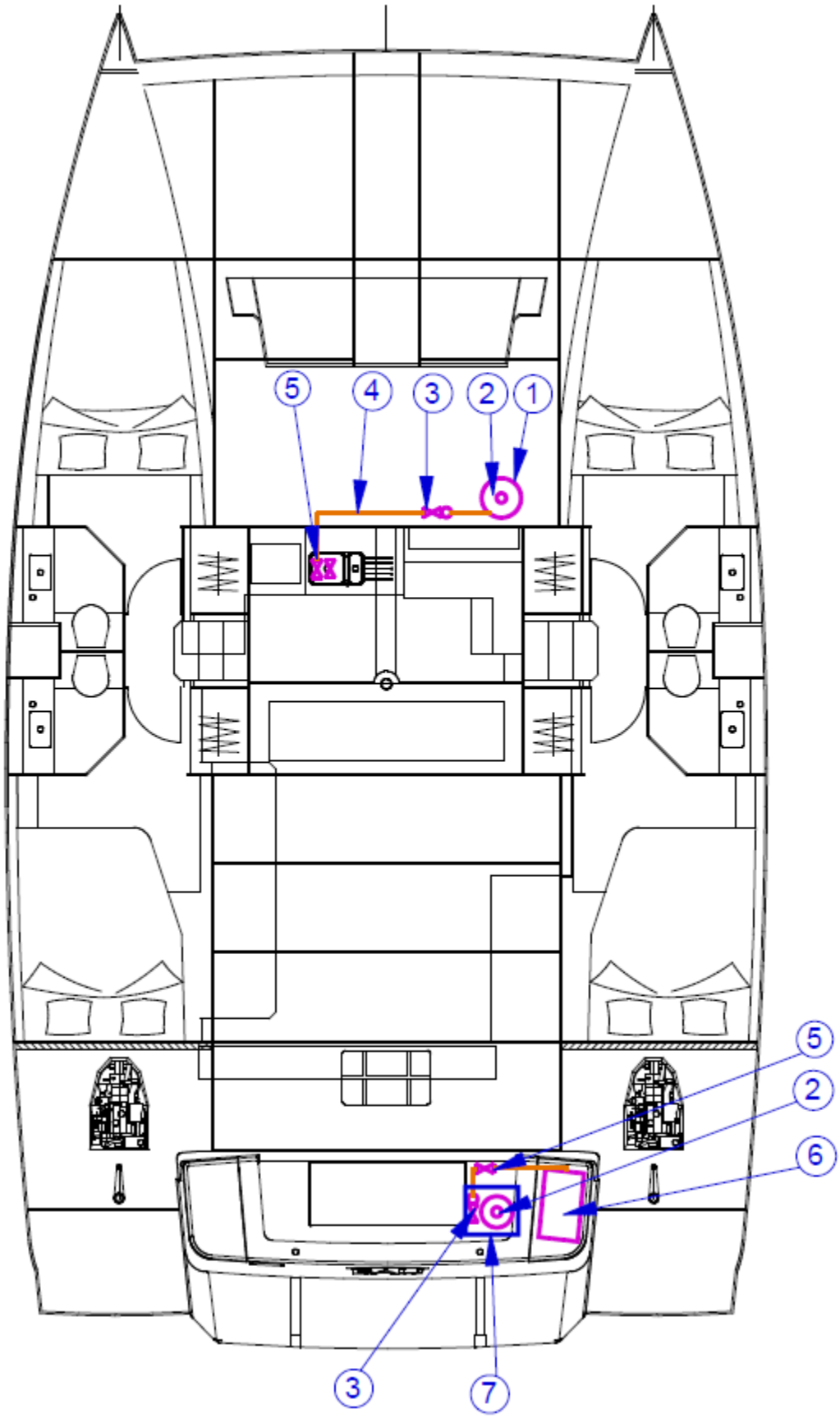
4-cabin, 4-bathroom version



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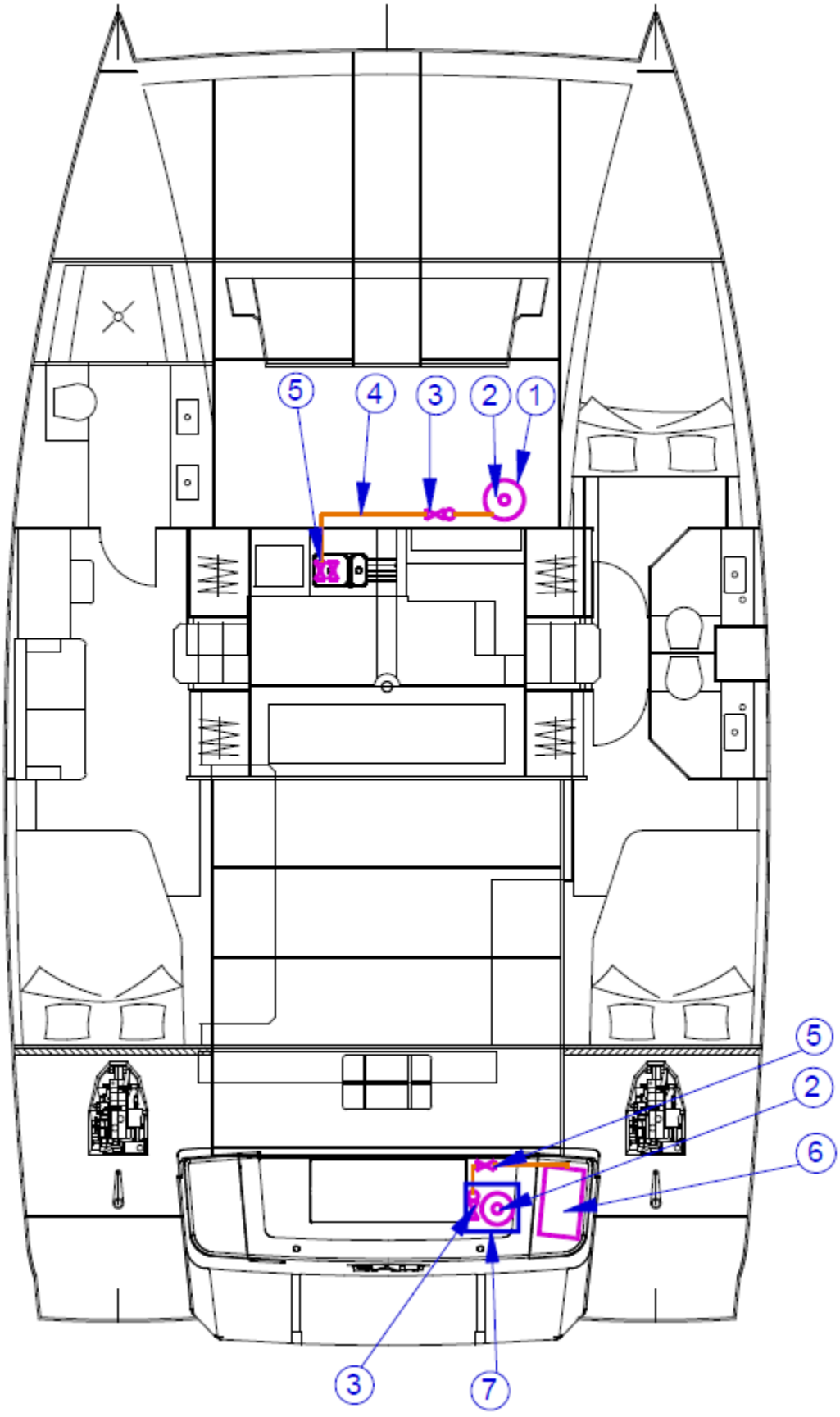

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CIRCUIT GAZ		GAS SYSTEM	
Rep.	***Désignation***	***Ref.***	***Description***
1	Bouteille de gaz 13kg (2ème Option)	1	13kg Gas bottle (Optional 2nd)
2	Robinet d'arrêt gaz	2	Gas shut-off tap
3	Détendeur + manomètre	3	Regulator + pressure gauge
4	Gaine PVC et tuyau cuivre Ø8	4	8mm copper pipe + PVC conduit
5	Vannes d'arrêt pour équipement	5	Shut-off taps for gas appliances
6	Plancha *	6	Plancha-style BBQ grill*
7	Boite à gaz 3kg *	7	3 kg gas bottle locker*
	*Options		* Options

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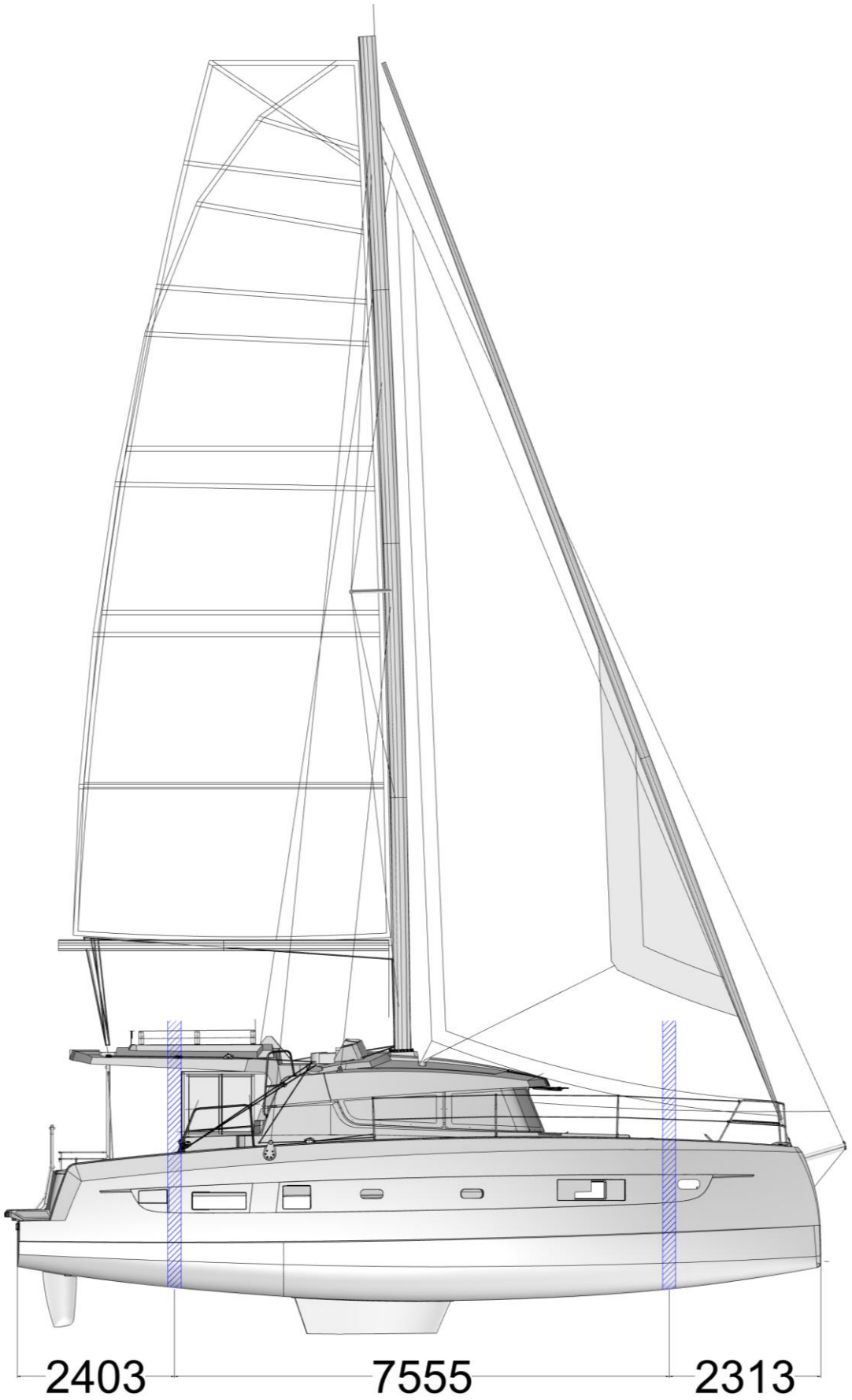

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PLAN DE GRUTAGE		LIFTING DIAGRAM	
Rep.	***Désignation***	***Ref.***	*Description*
	Point de levage ou de calage Les élingues ou les cales doivent être positionnées au niveau des cloisons de structure repérées par les triangles sur la bande déco grise au-dessus du redan. Déplacement condition lège Mlc 11925kg Maître bau 7.07 m Tirant d'eau 1,22 m		**Lifting or chocking points** Lifting slings or chocks must be positioned in line with the structural bulkheads, indicated by triangles on the grey decorative strip above the chine. Lightship displacement Mlc 11,925kg Maximum beam 7.07 m Draft 1.22 m

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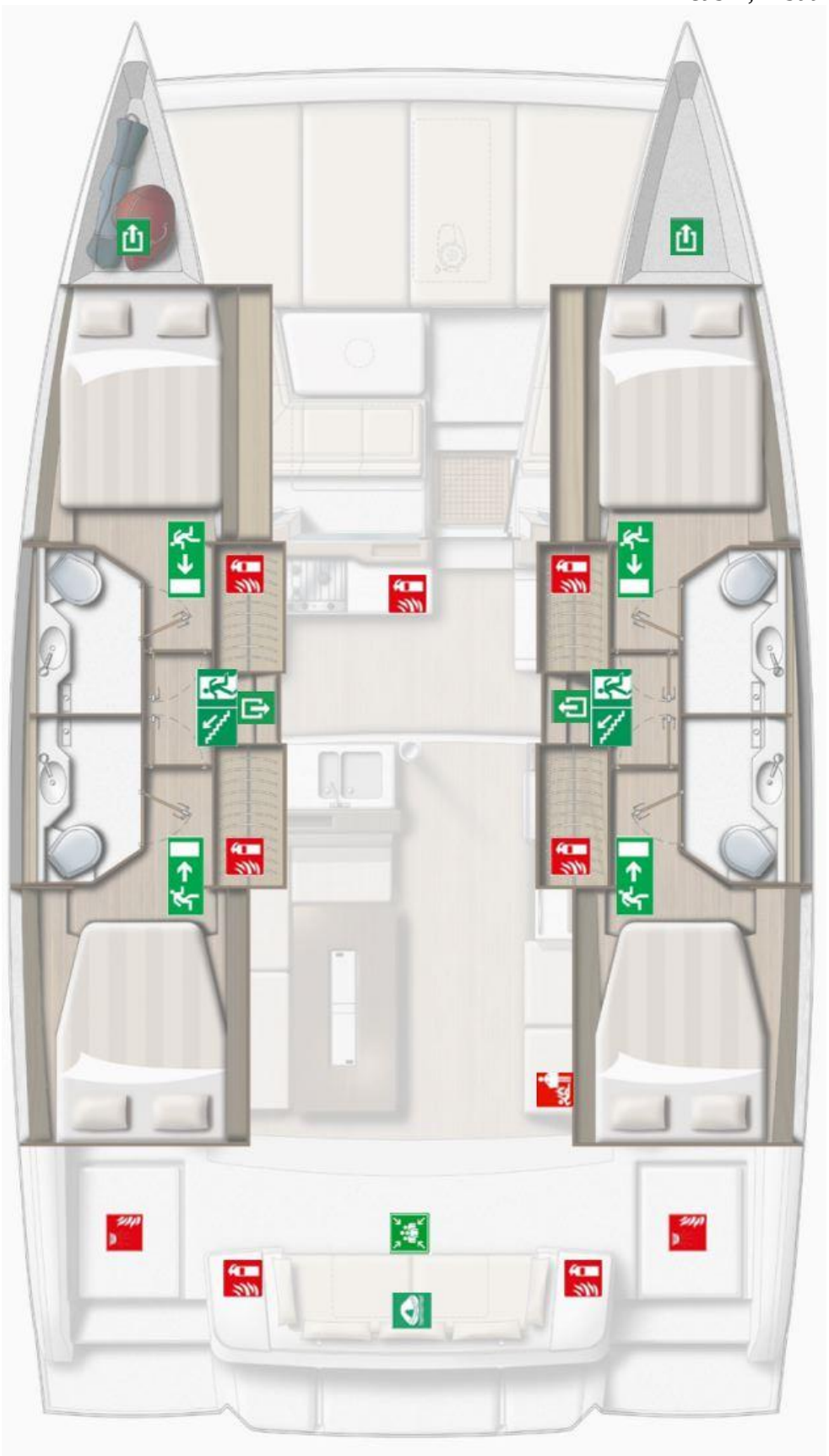
4-cabin, 4-bathroom version



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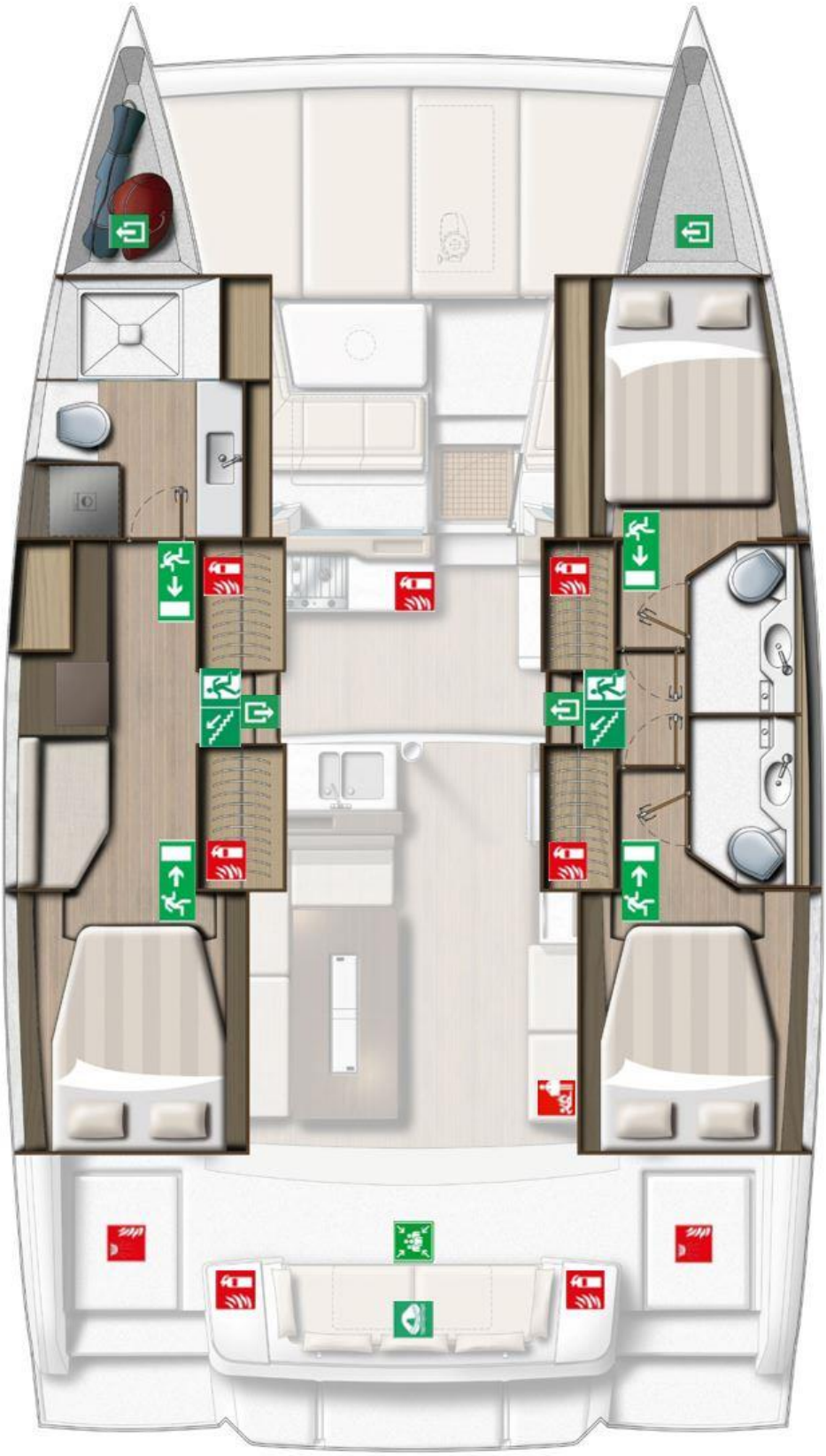
3-cabin, 3-bathroom version



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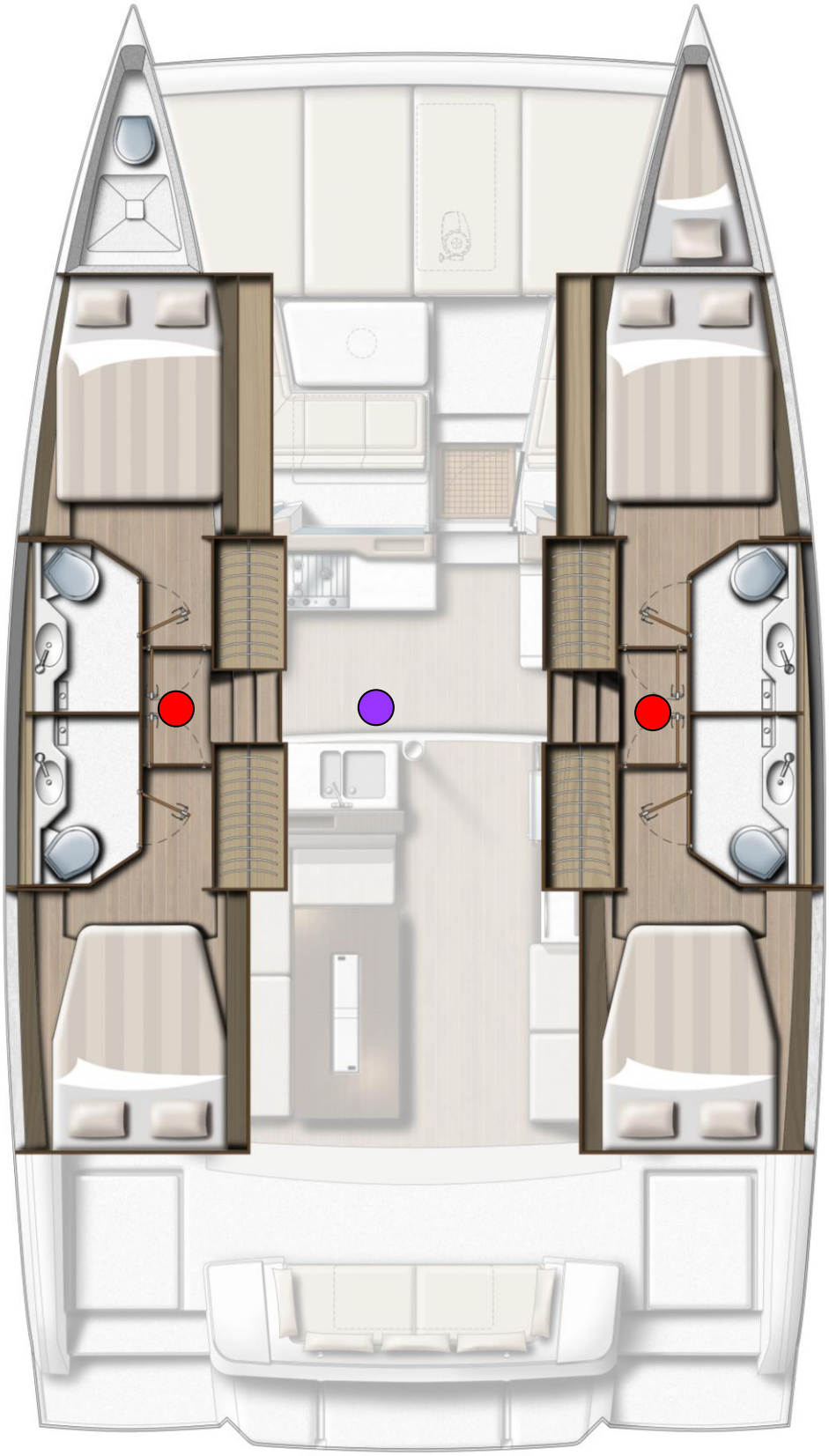

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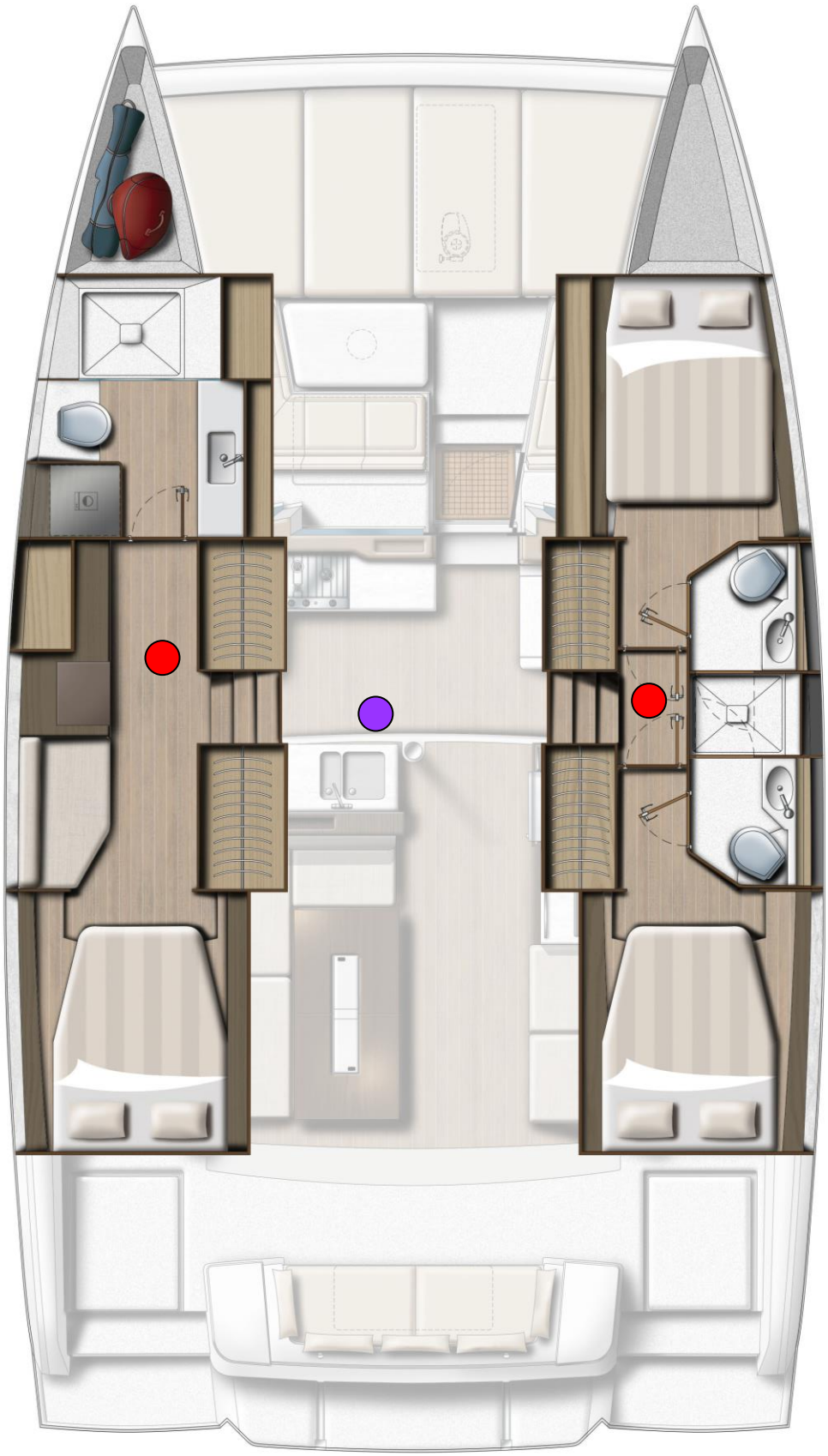
3-cabin version



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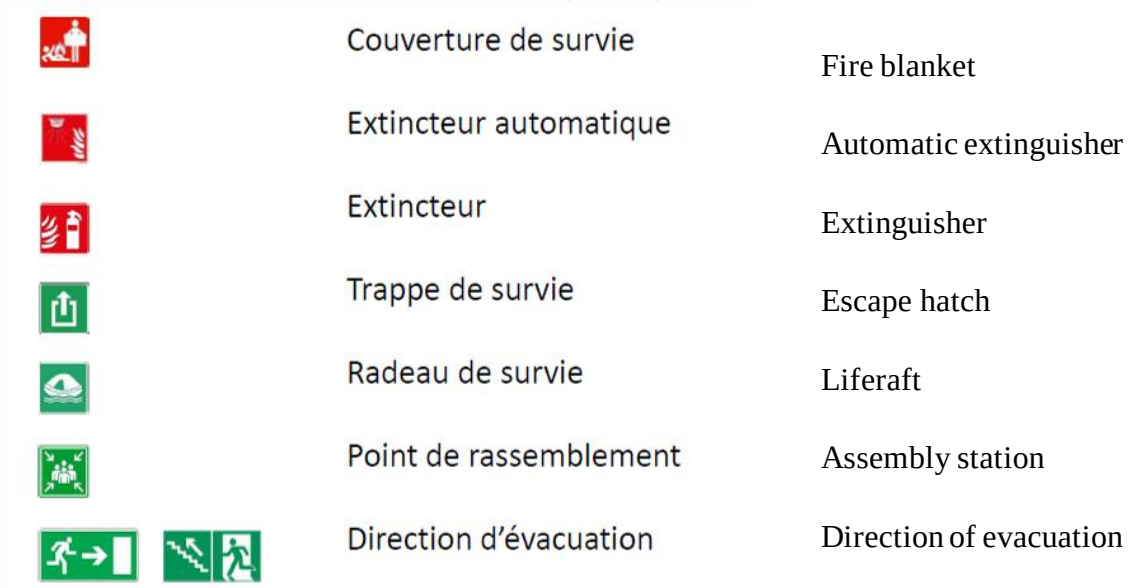
EVACUATION DU NAVIRE		ABANDONING SHIP	
Rep.	***Désignation***	***Ref.***	***Description***
1	Extincteur auto fixe comp. moteur TD 2KG	1	Auto extinguisher stbd engine 2KG
2	Extincteur auto fixe comp. moteur BD 2KG	2	Auto extinguisher port engine 2KG
	Emplacements préconisés pour les extincteurs		Recommended places for extinguishers
3	Cabine AR TD ; Capacité 2kg	3	Stbd aft cabin: Capacity 2kg
4	Cabine AR BD ; Capacité 2kg	4	Port aft cabin: Capacity 2kg
5	Cabine AV TD ; Capacité 2kg	5	Stbd forecabin: Capacity 2kg
6	Cabine AV BD ; Capacité 2kg	6	Port forecabin: Capacity 2kg
7	Cuisine ; Capacité 4kg	7	Galley: Capacity 4kg
8	Nacelle ; Capacité 4kg	8	Nacelle: Capacity 4kg



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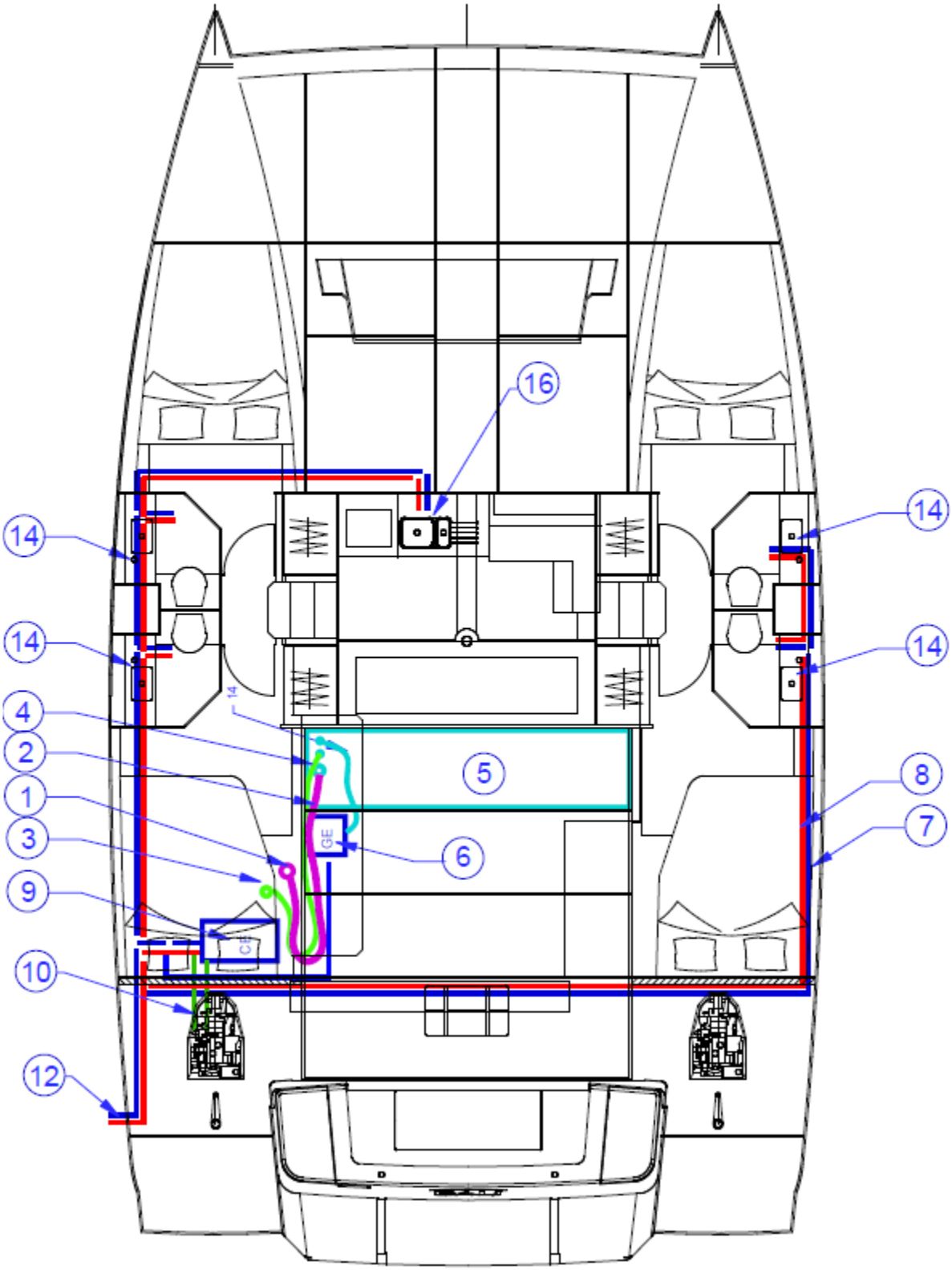

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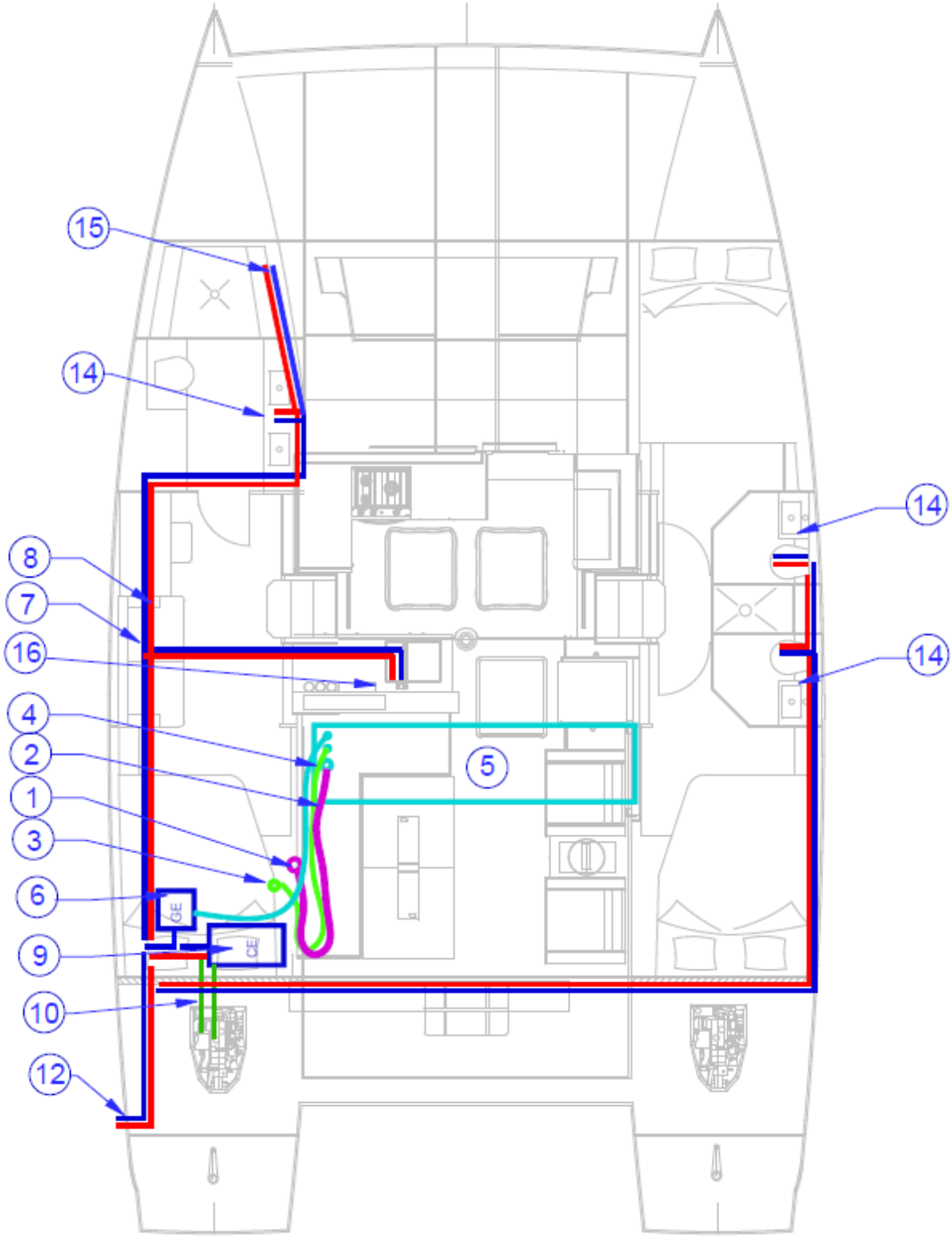

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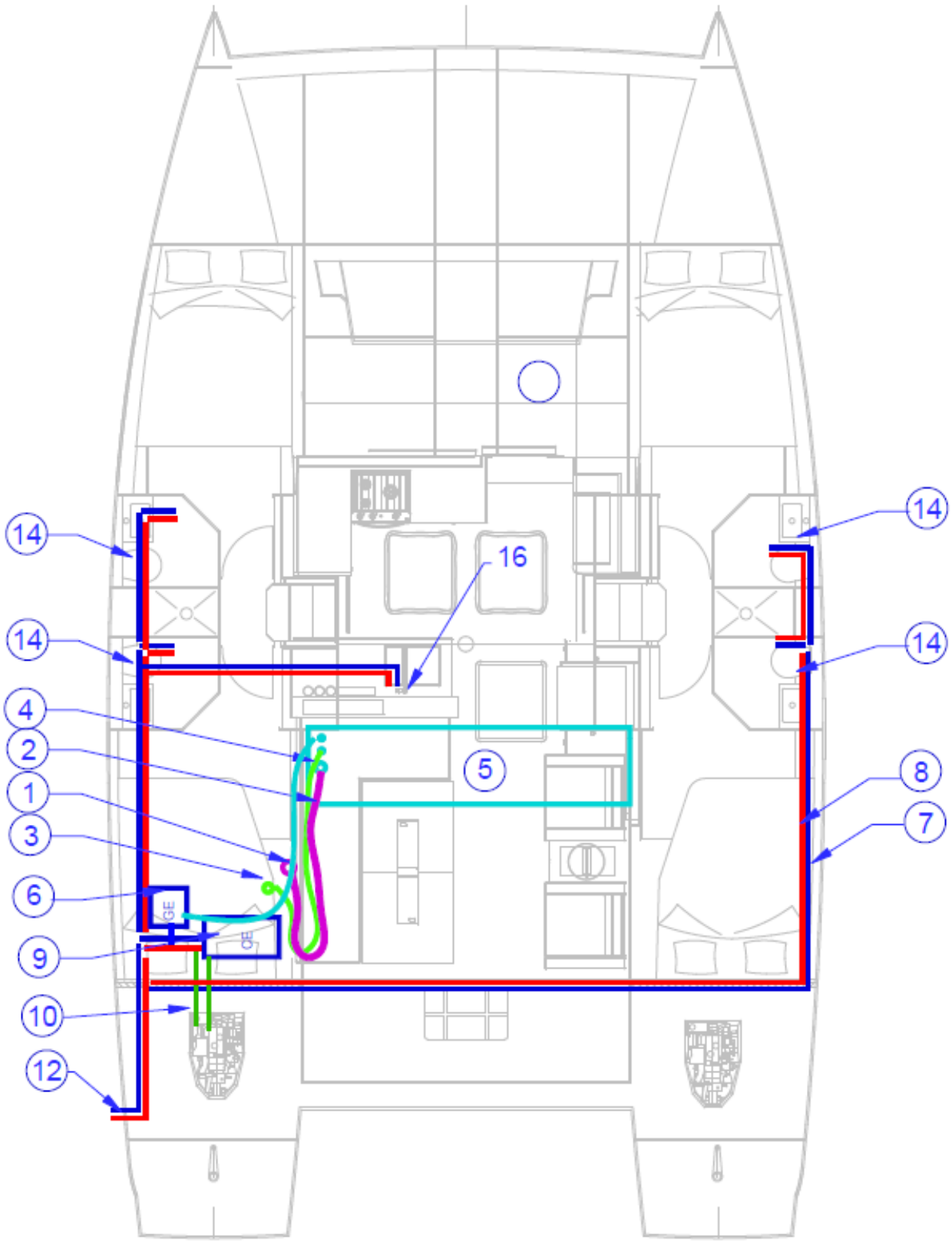

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CIRCUIT EAU DOUCE		FRESHWATER SYSTEM	
Rep.	***Désignation***	***Rep.***	***Description***
1	Nable de remplissage	1	Filler neck
2	Tuyau de remplissage Ø38mm	2	Filler tube Ø 38mm
3	Event	3	Vent
4	Tuyau d'évent Ø 16mm	4	Vent pipe Ø 16mm
5	Réservoir d'eau 800L	5	Water tank 800L
6	Groupe d'eau sous pression	6	Fresh water pressure pump
7	Tuyau de circulation eau froide	7	Cold water circulation pipe
8	Tuyau de circulation eau chaude	8	Hot water circulation pipe
9	Chauffe-eau 60 L	9	Water heater 60L
10	Tuyau d'échangeur moteur	10	Engine heat exchanger pipe
12	Douchette de pont	12	Deck shower
14	Mitigeur Lavabo	14	Washbasin mixer tap
15	Mitigeur douche	15	Shower mixer tap
16	Mitigeur cuisine	16	Galley mixer tap
17	Dessalinisateur	17	Watermaker
18	Tuyau arrivée eau douce	18	Fresh water inlet pipe

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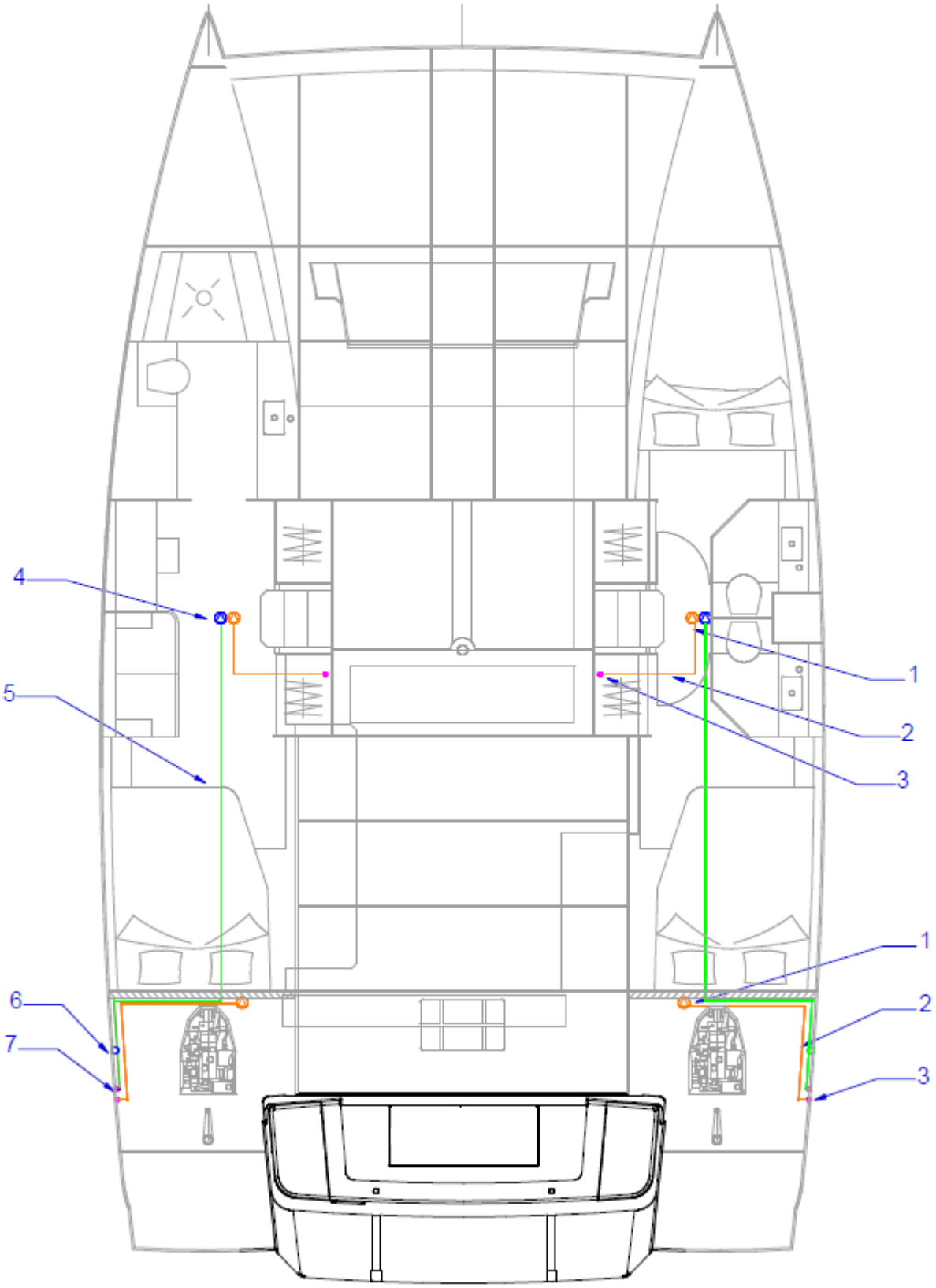

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CIRCUIT D'ASSECHEMENT		BILGE PUMP SYSTEM	
Rep.	***Désignation***	***Ref.***	***Description***
	Pompe de cale électrique		***Electric bilge pump***
1	Pompe de cale	1	Bilge pump
2	Tuyau	2	Hose
3	Passe coque de rejet	3	Through-hull discharge
	Pompe de cale manuelle		***Manual bilge pump***
4	Crépine	4	Strainer
5	Tuyau	5	Hose
6	Pompe de cale manuelle	6	Manual bilge pump
7	Passe coque de rejet	7	Through-hull discharge

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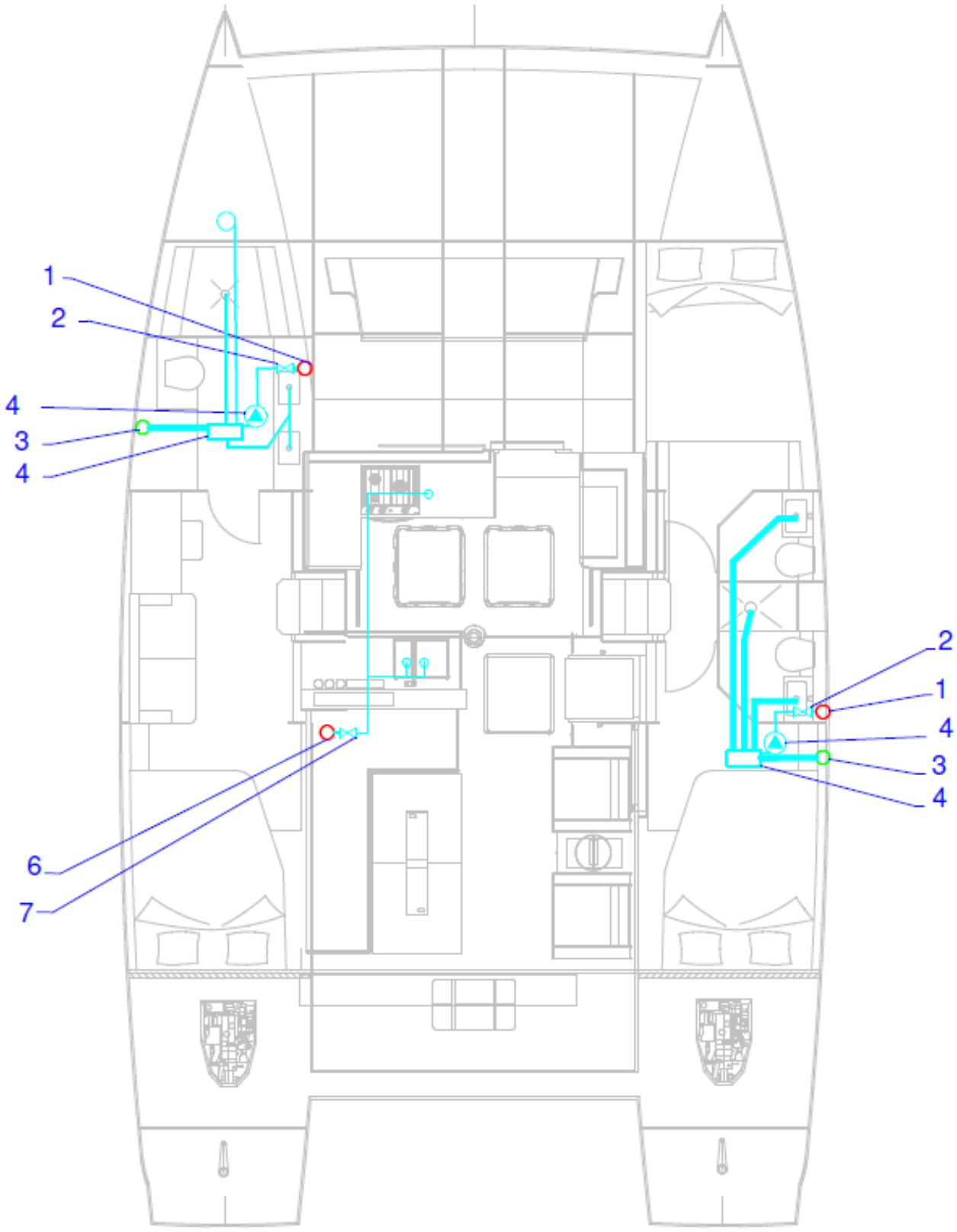

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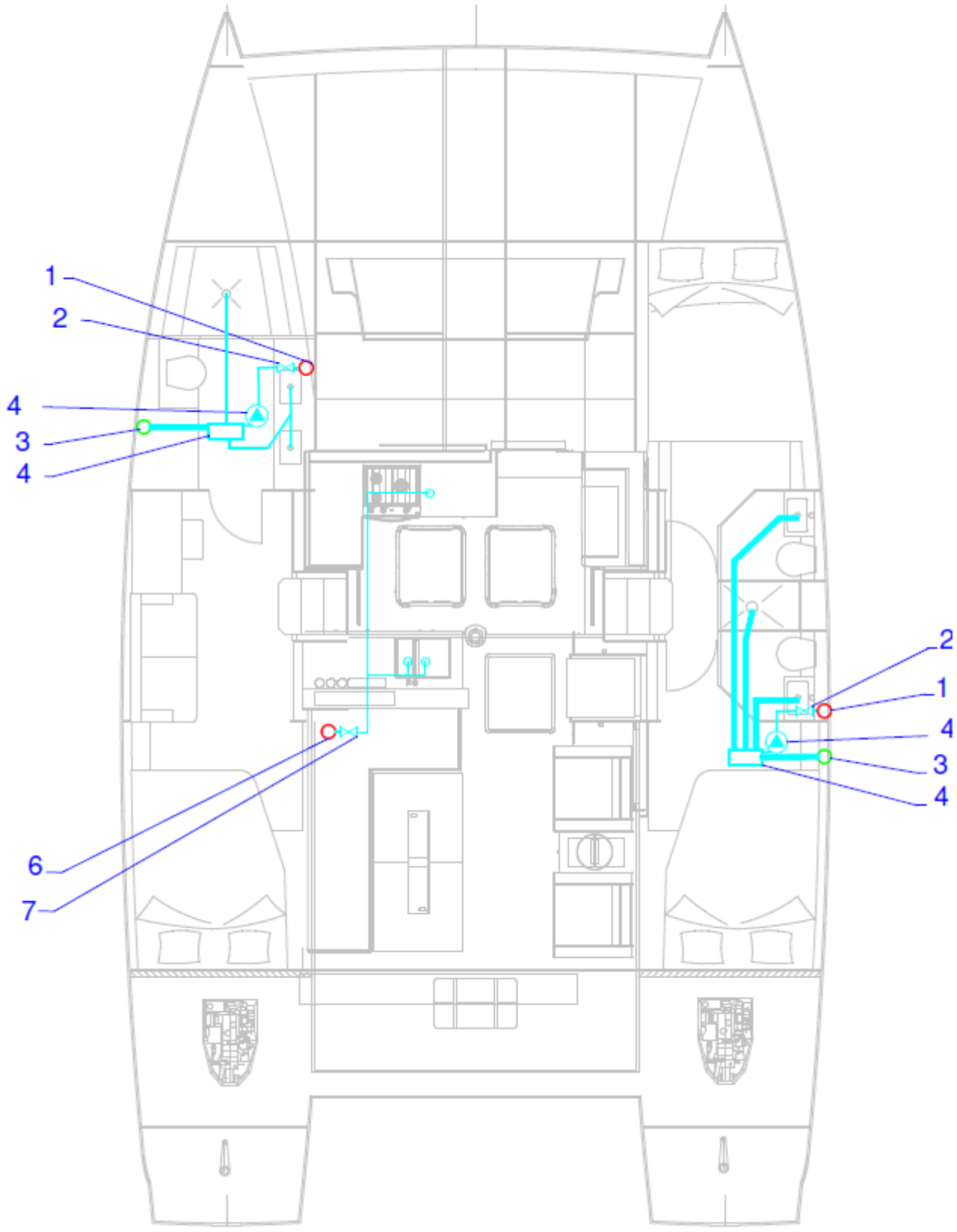

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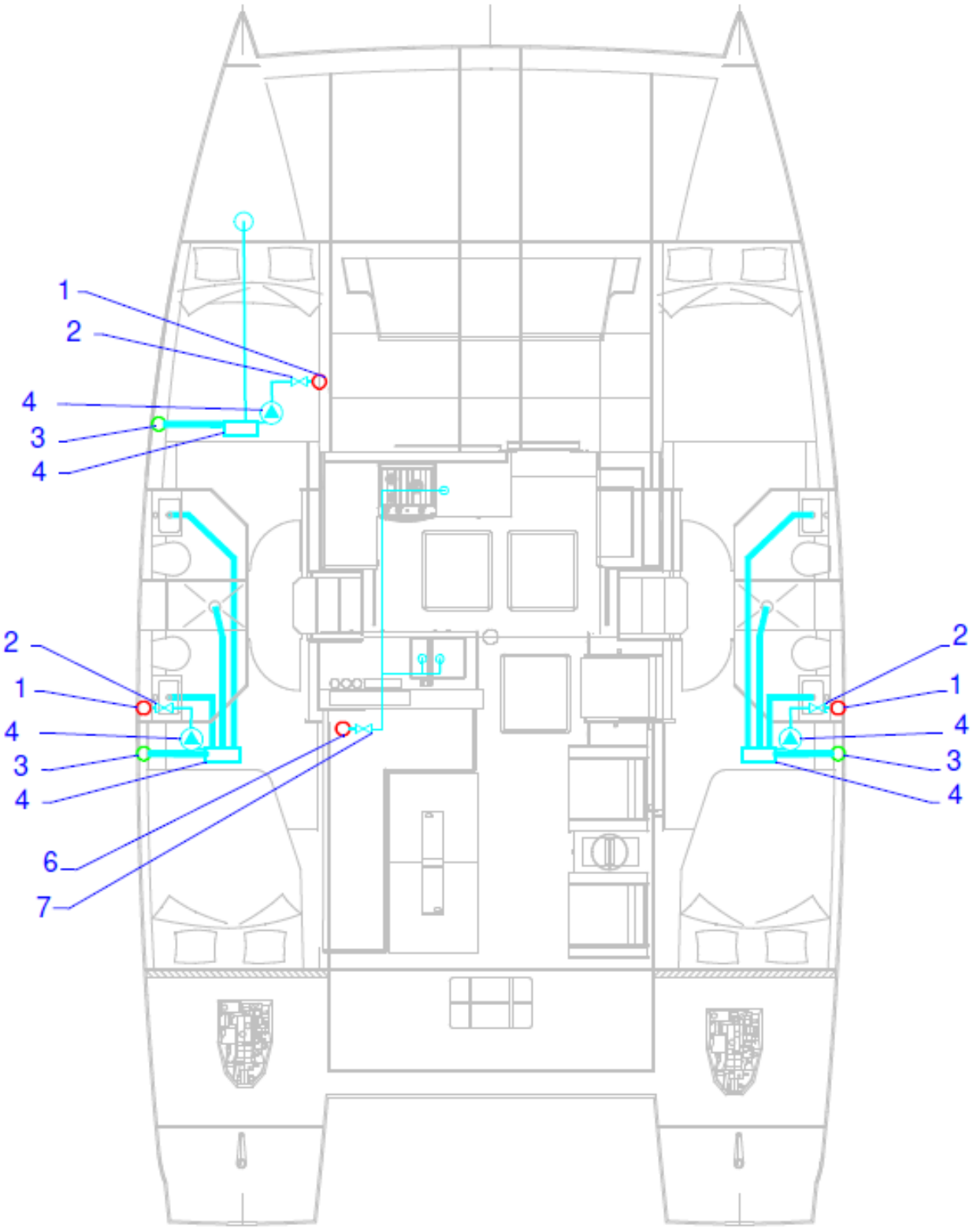
4-cabin, 4-bath, skipper bath. version



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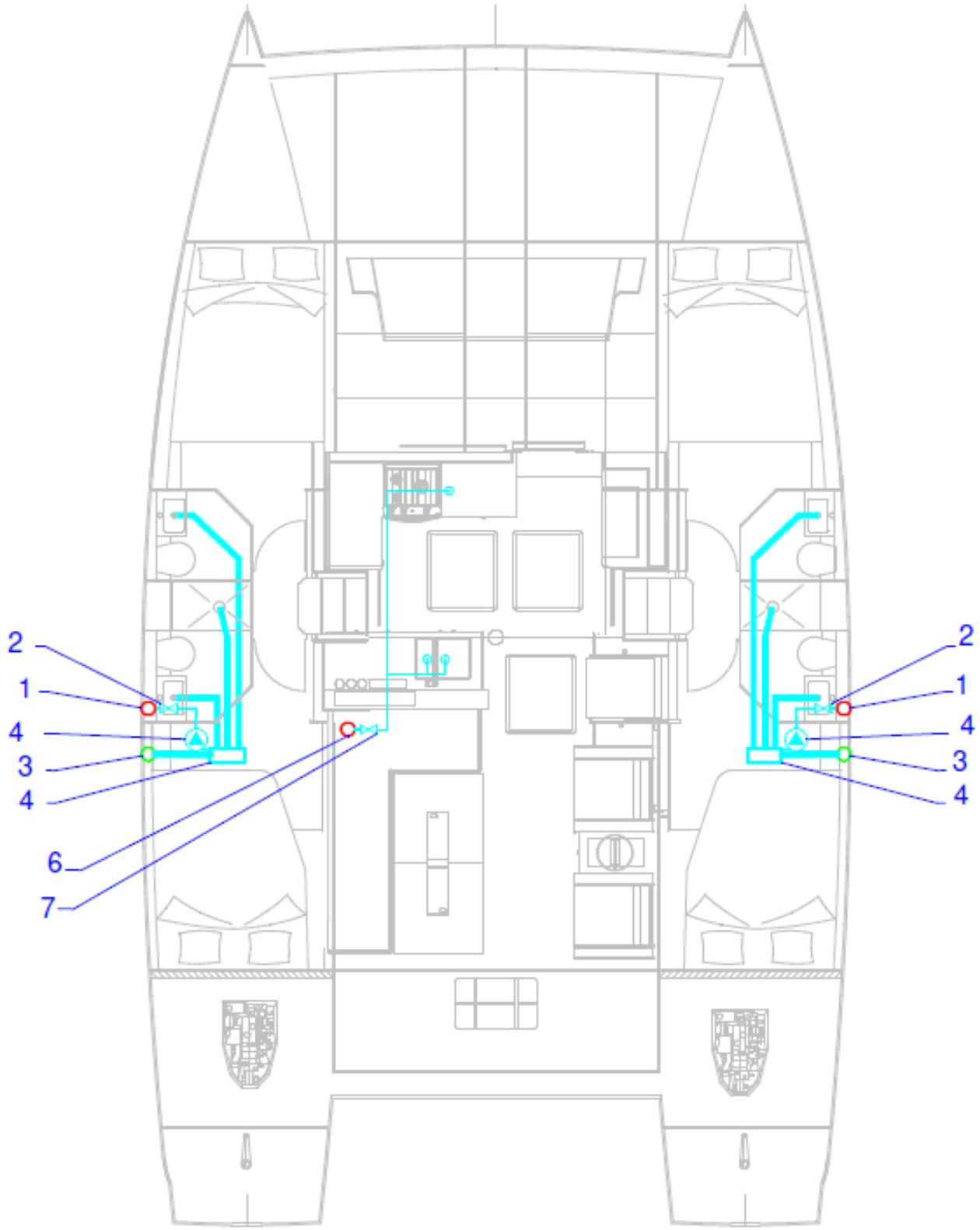

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CIRCUIT D'EAUX GRISES		GREY WATER SYSTEM	
Rep.	***Désignation***	***Ref.***	***Description***
1	Passe coque 1''	1	1" through-hull
2	Vanne cadenassable ¼ de tour 1''	2	1", ¼-turn padlockable seacock
3	Event D25	3	D25 Vent
4	Boite eaux grises	4	Grey water tank
5	Pompe boite eaux grises	5	Grey water pump
6	Passe coque 1'' ½ Cuisine	6	Galley through-hull 1¼"
7	Vanne cadenassable ¼ de tour 1'' ½	7	1½", ¼-turn padlockable seacock

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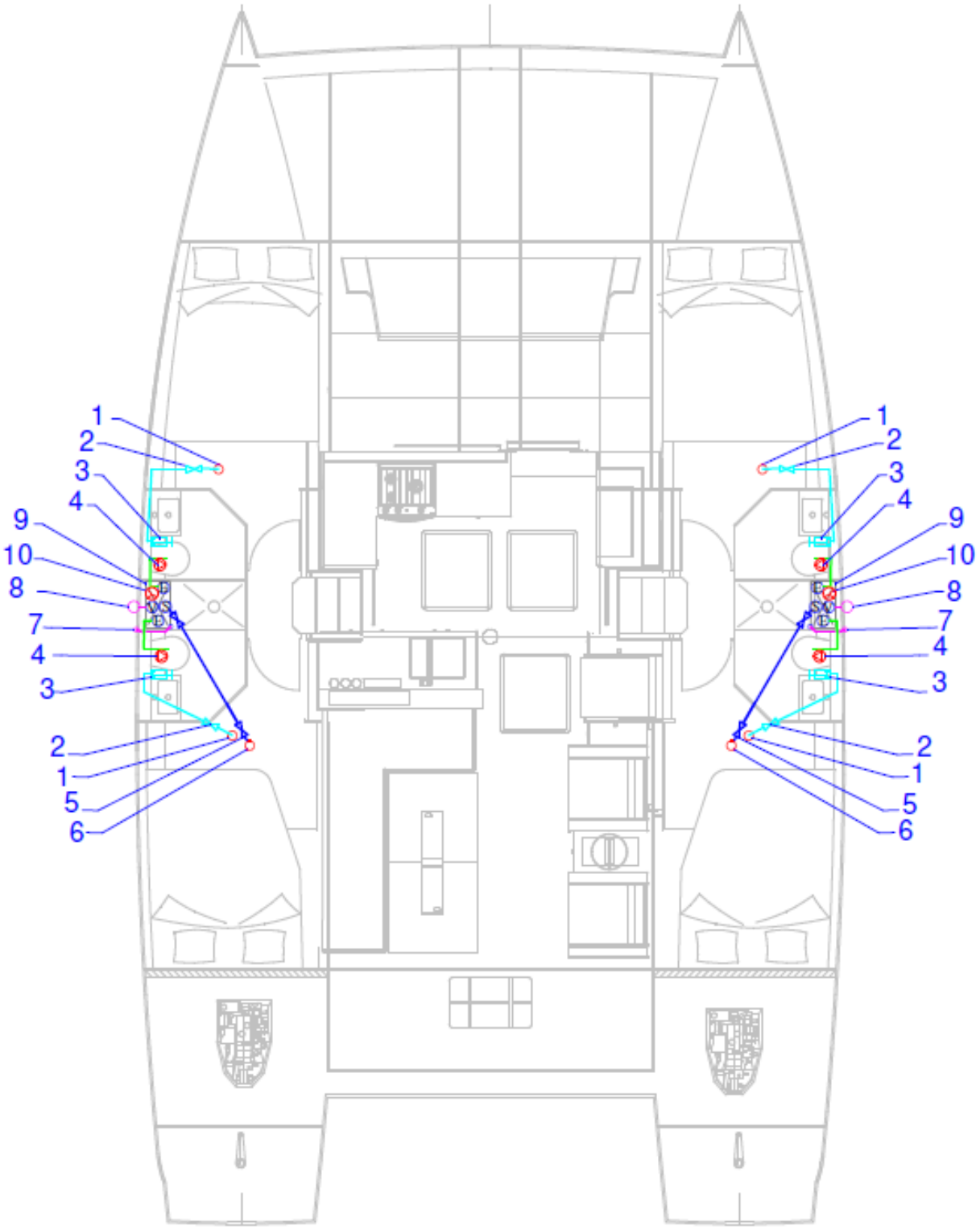
4-cabin, 4-bathroom version



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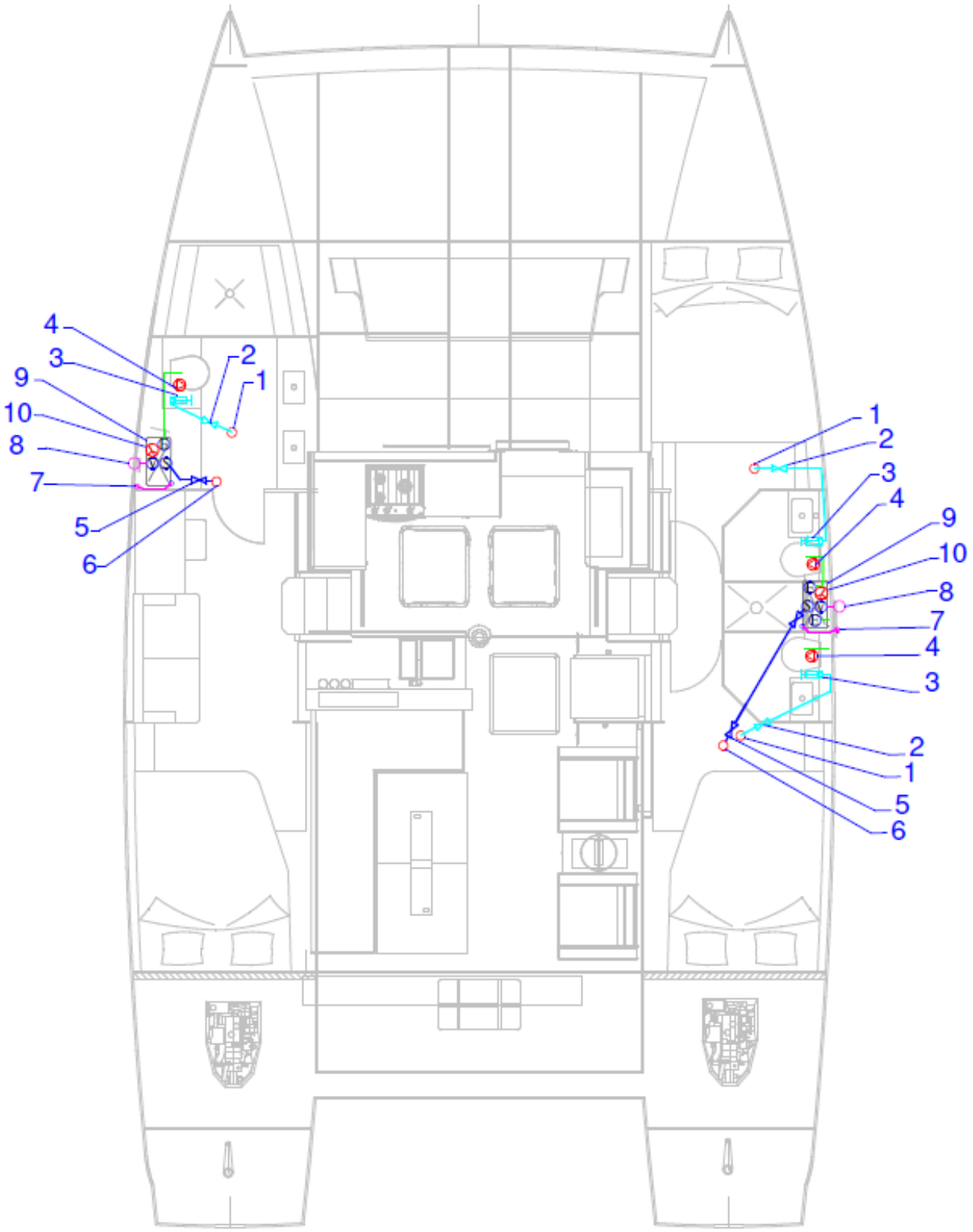
3-cabin, 3-bathroom version



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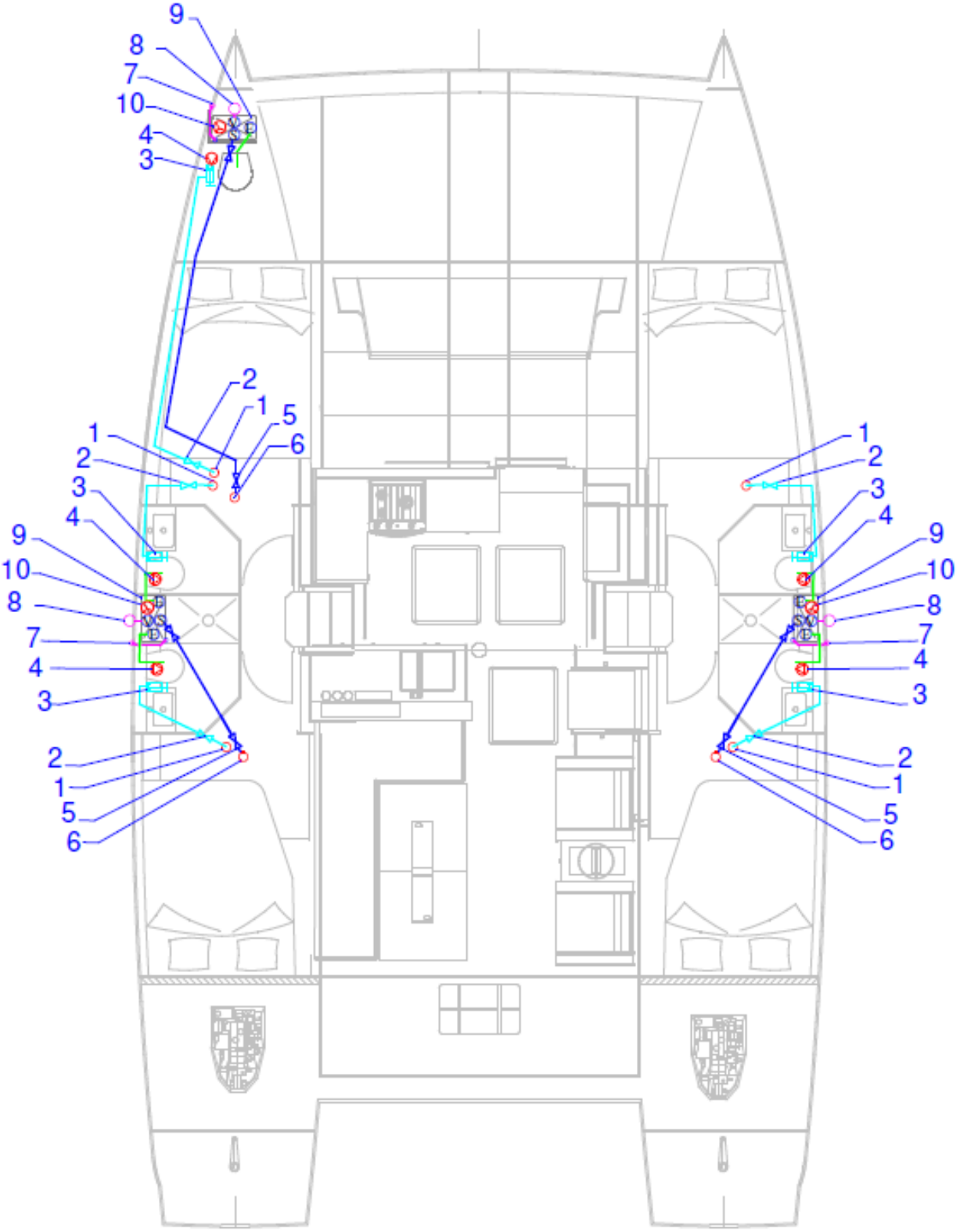
4-cabin, 4-bath, skipper bath. version



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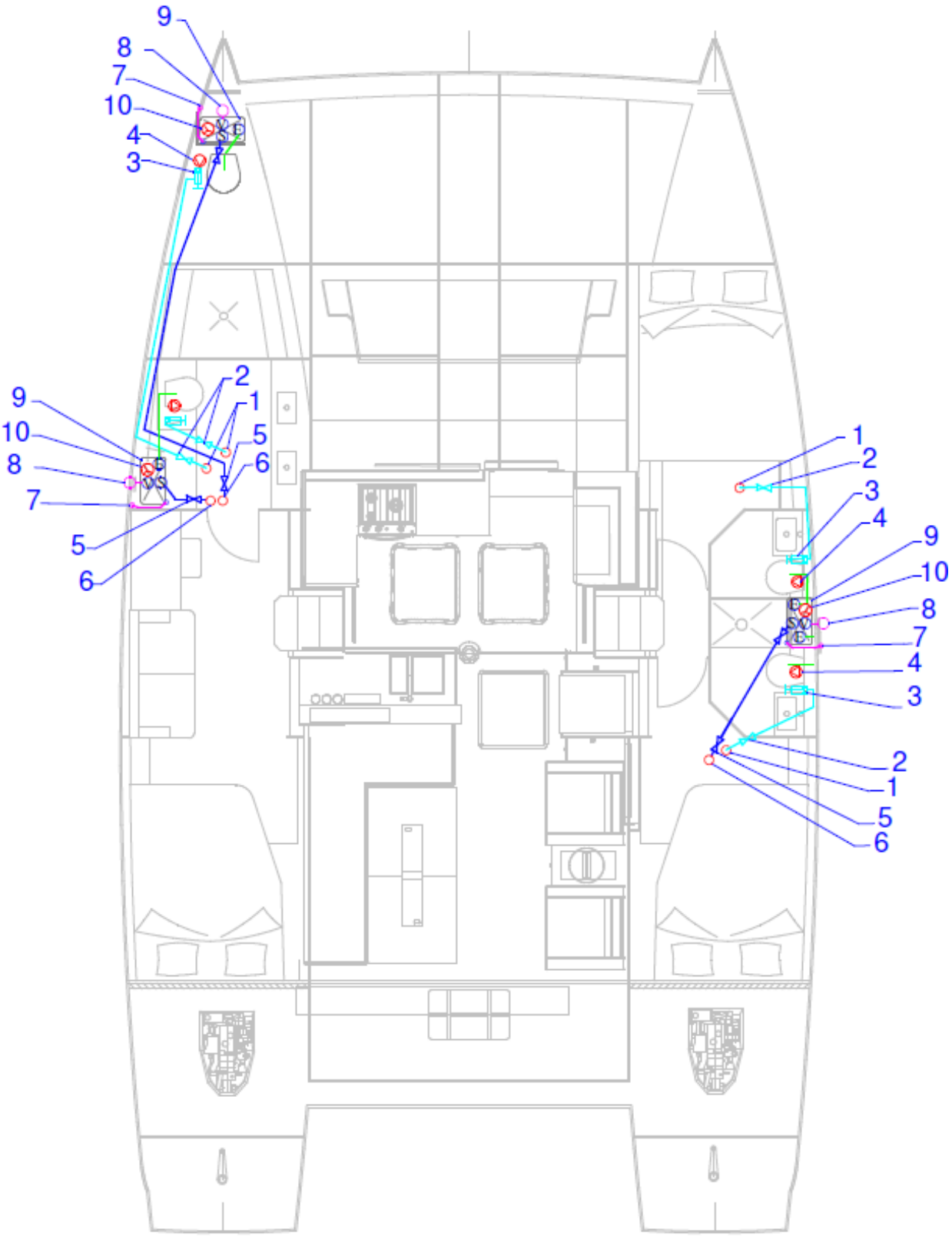
3-cabin, 4-bath, skipper bath. version



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HOLDING TANK		HOLDING TANK	
Rep.	***Désignation***	***Rep.***	***Description***
1	Passe coque ¾''	1	¾" Through-hull skin fitting
2	Vanne cadenassable ¼ de tour ¾ ''	2	¾" padlockable ¼-turn seacock
3	Pompe à main WC	3	Toilet hand pump
4	Moteur WC électrique (OPTION)	4	Electric toilet pump (option)
5	Vanne cadenassable ¼ de tour 2''	5	2" padlockable ¼-turn seacock
6	Passe coque 2''	6	2" Through-hull skin fitting
7	Event de Holding Tank	7	Holding tank vent
8	Nable de pont (vidange Holding Tank)	8	Deck filler, holding tank discharge
9	Holding Tank 55L	9	55 L holding tank
10	Jauges	10	Gauge
E	Entrée Holding Tank	E	Holding tank entry
S	Sortie Holding Tank	S	Holding tank outlet
V	Vidange Holding Tank	V	Holding tank discharge
	Circuit Evacuation WC		WC emptying circuit
	Circuit eau de mer		Seawater circuit
	Circuit Evacuation Holding Tank		Holding tank emptying circuit
	Circuit vidange et évent Holding Tank		Holding tank emptying and vent circuit
*			

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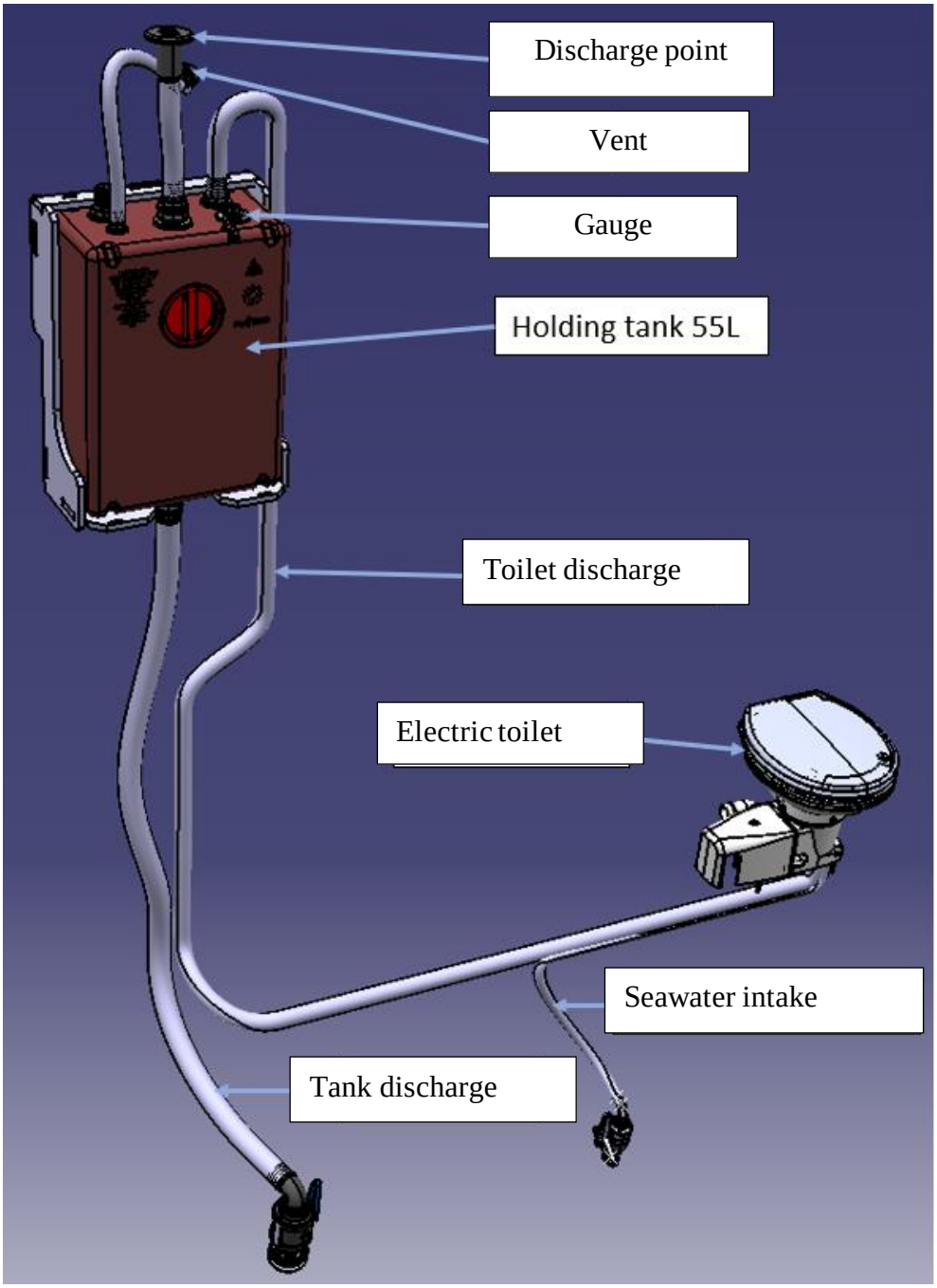

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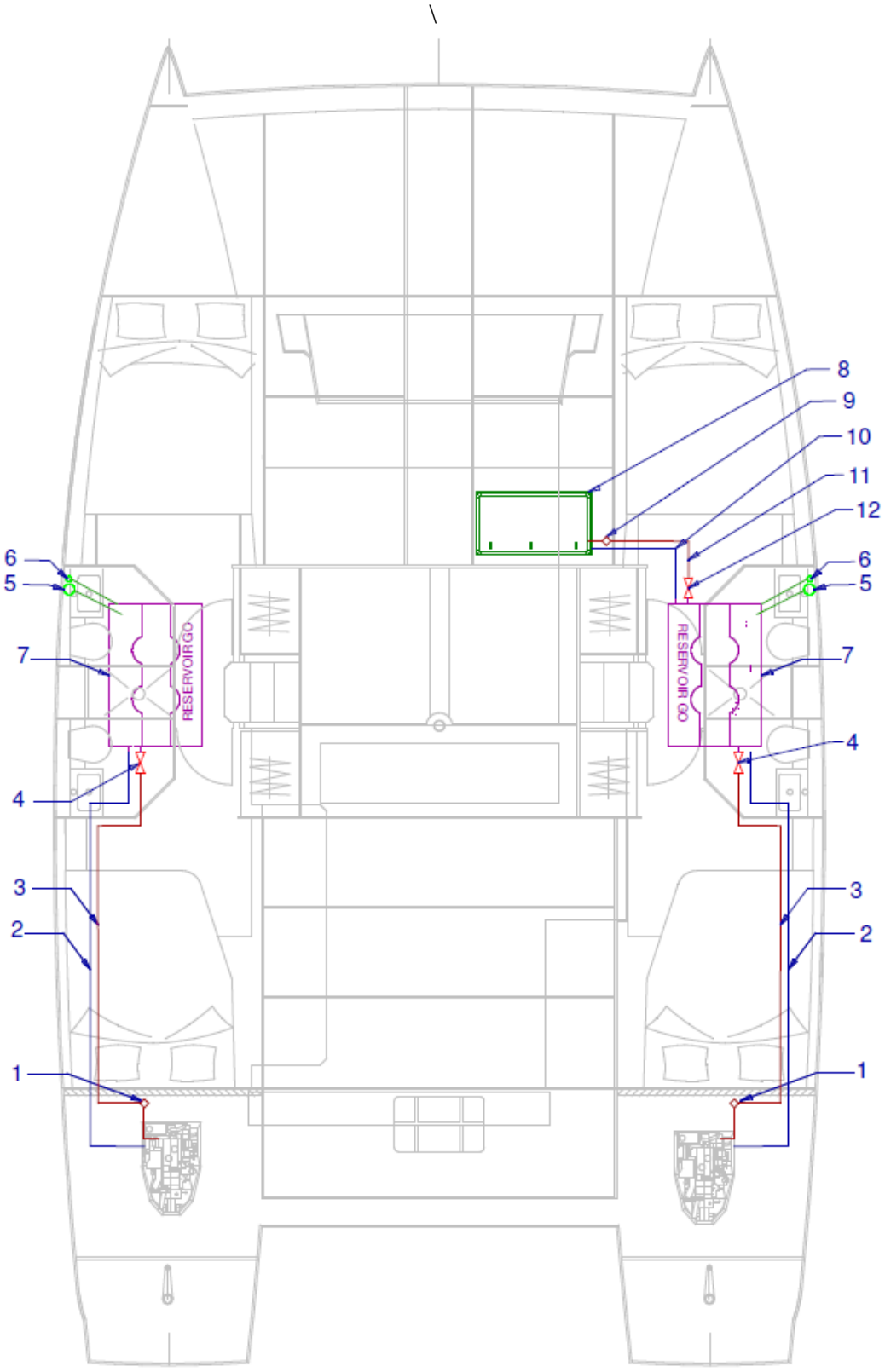

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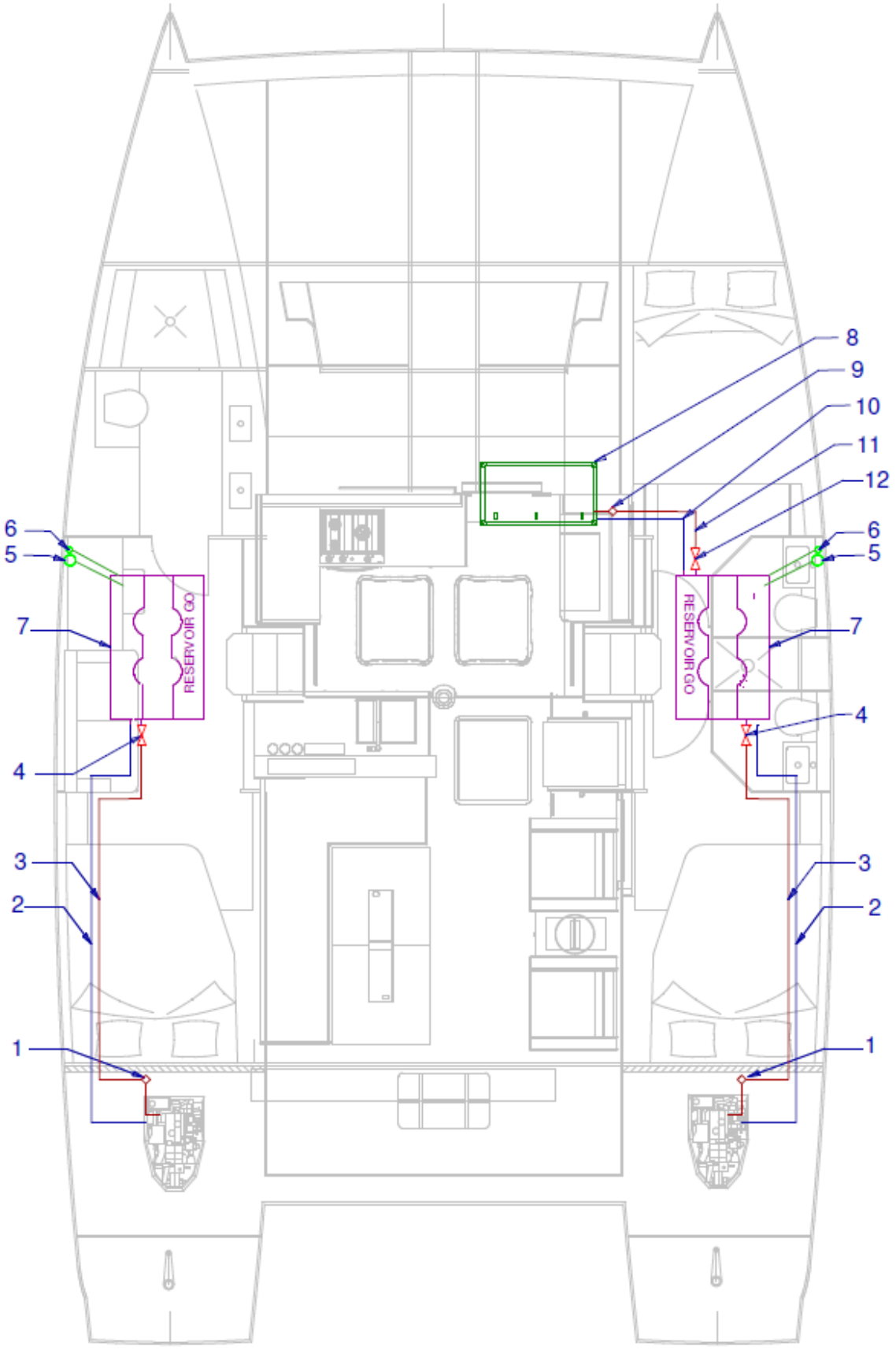

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CIRCUIT GASOIL		FUEL SYSTEM	
Rep.	***Désignation***	***Ref.***	***Description***
1	Filtre GO moteur	1	Engine fuel filter
2	Tuyau de retour moteur	2	Diesel return pipe engine
3	Tuyau d'alimentation moteur	3	Fuel feed pipe
4	Vanne de coupure gasoil moteur	4	Diesel tap engine
5	Nable de gasoil	5	Diesel filler neck
6	Event + clapet anti-retour	6	Vent + non return valve
7	Réservoir gasoil	7	Diesel tank
8	Groupe électrogène (option)	8	Generator (option)
9	Filtre GO groupe électrogène	9	Generator fuel filter
10	Tuyau retour groupe	10	Diesel return pipe generator
11	Tuyau alim groupe	11	Generator fuel feed pipe
12	Vanne de coupure gasoil groupe	12	Diesel tap generator

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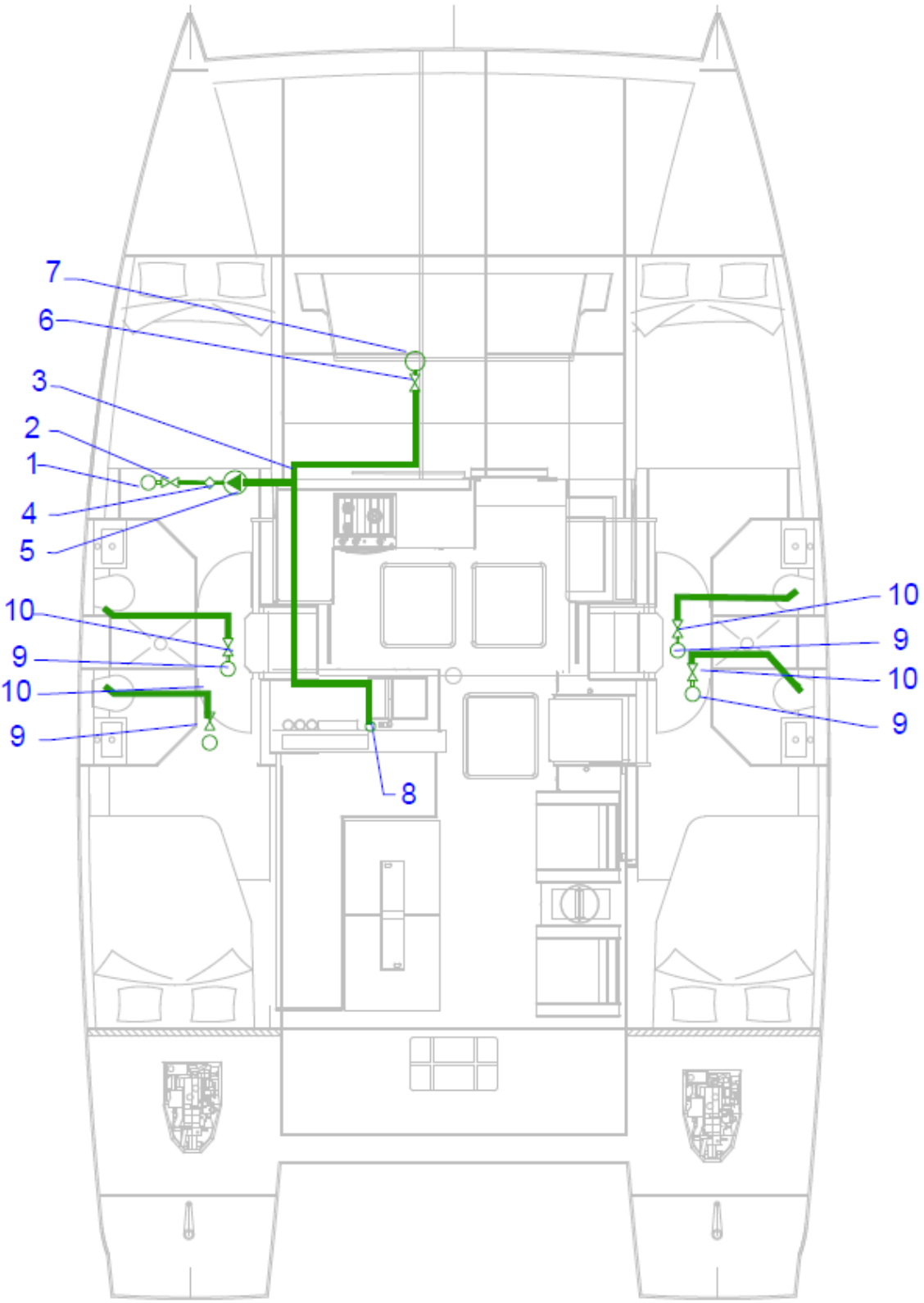
4-cabin, 4-bathroom version



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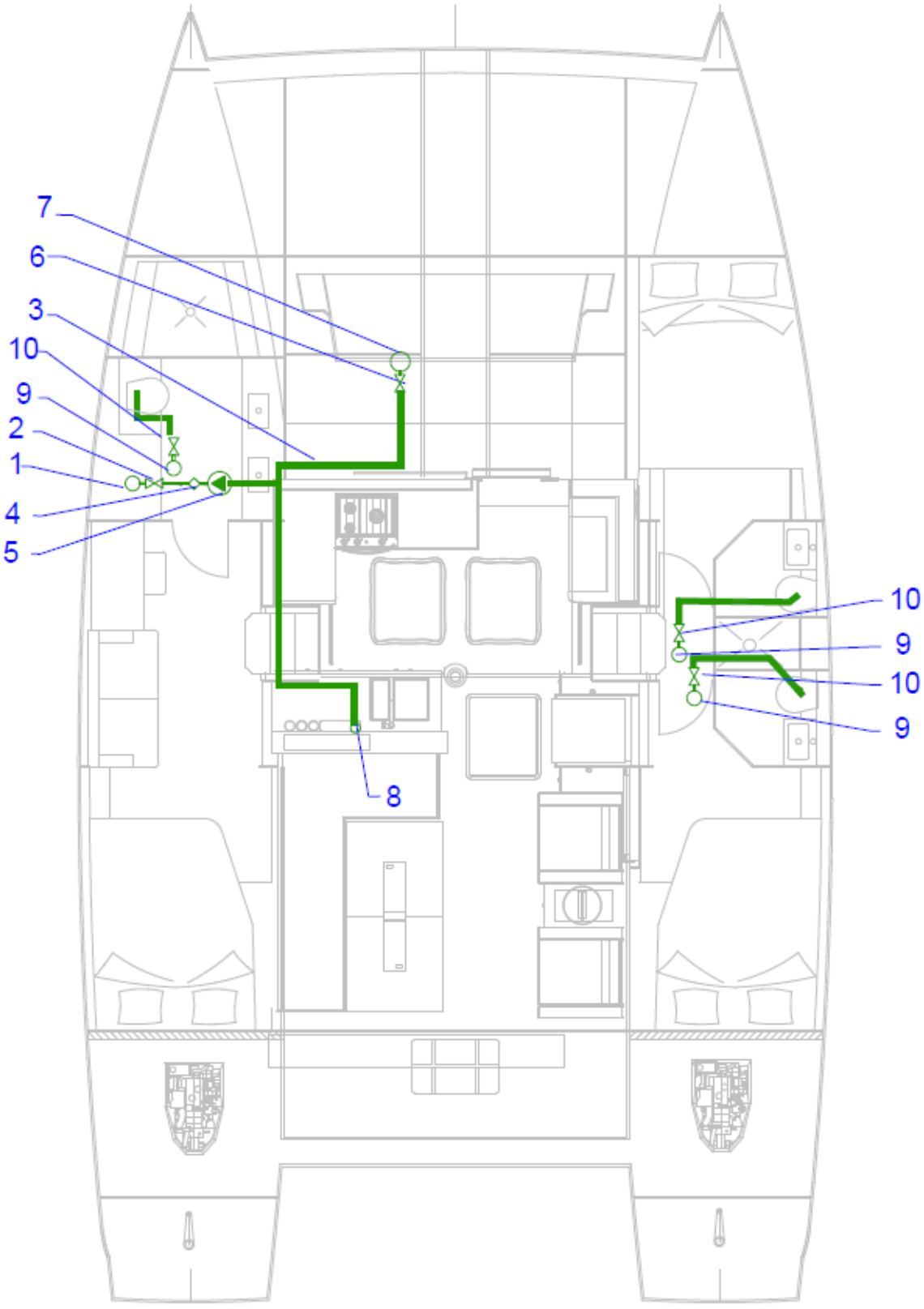

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EAU DE MER

Rep.	*Désignation*	*Ref.*	*Description*
1	Puisage d'eau de mer	1	Seawater intake
2	Vanne 1/4 de tour de puisage	2	¼-turn seacock
3	Réseau eau de mer	3	Seawater system
4	Filtre eau de mer	4	Seawater filter
5	Pompe d'aspiration	5	Suction pump
6	Vanne sortie pied de mat	6	Mast outlet tap
7	Embout Gardena sortie pied de mat	7	Hosepipe fitting at mastfoot
8	Robinet eau de mer cuisine	8	Galley seawater tap
9	Passe coque prise eau de mer wc	9	Through-hull WC water intake
10	Vanne eau de mer WC	10	WC seawater seacock

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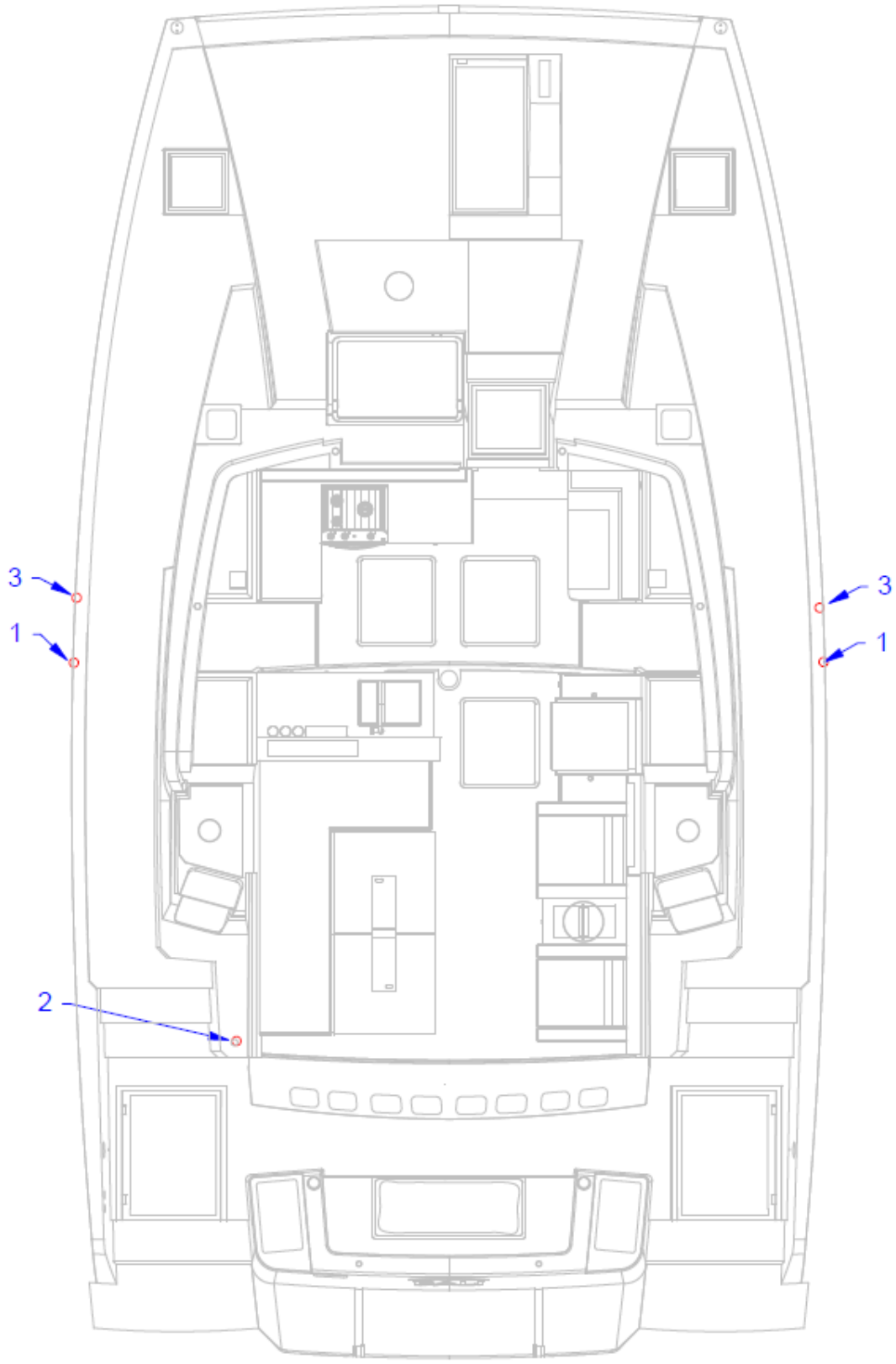
4-cabin, 4-bathroom version



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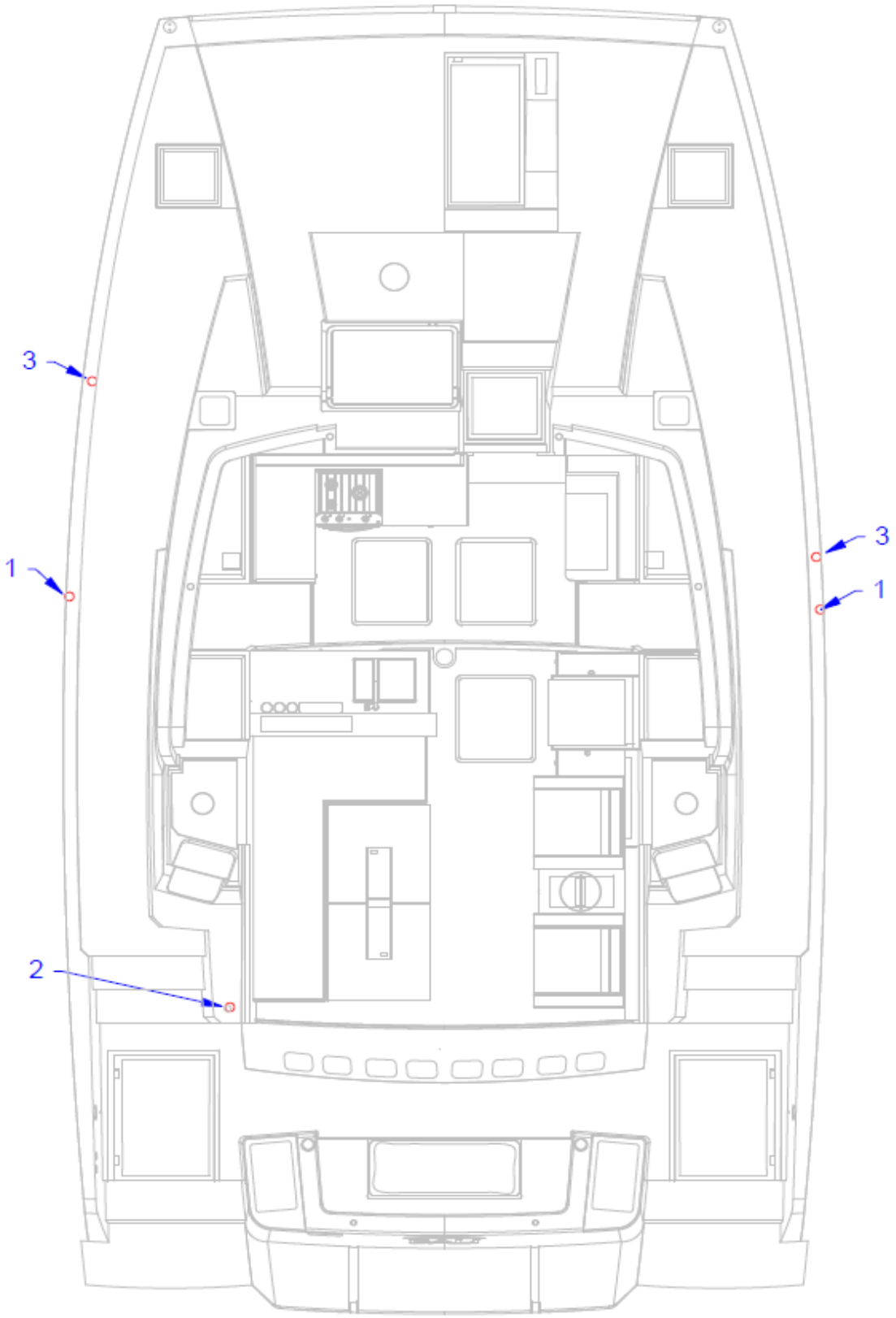
3-cabin, 3-bathroom version



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LOCALISATION DES NABLES		FILLER NECK LOCATIONS	
Rep.	***Désignation***	***Ref.***	***Description***
1	Nable fuel	1	Fuel filler neck
2	Nable eau douce	2	Fresh water filler neck
3	Nable eaux noires	3	Holding tank discharge

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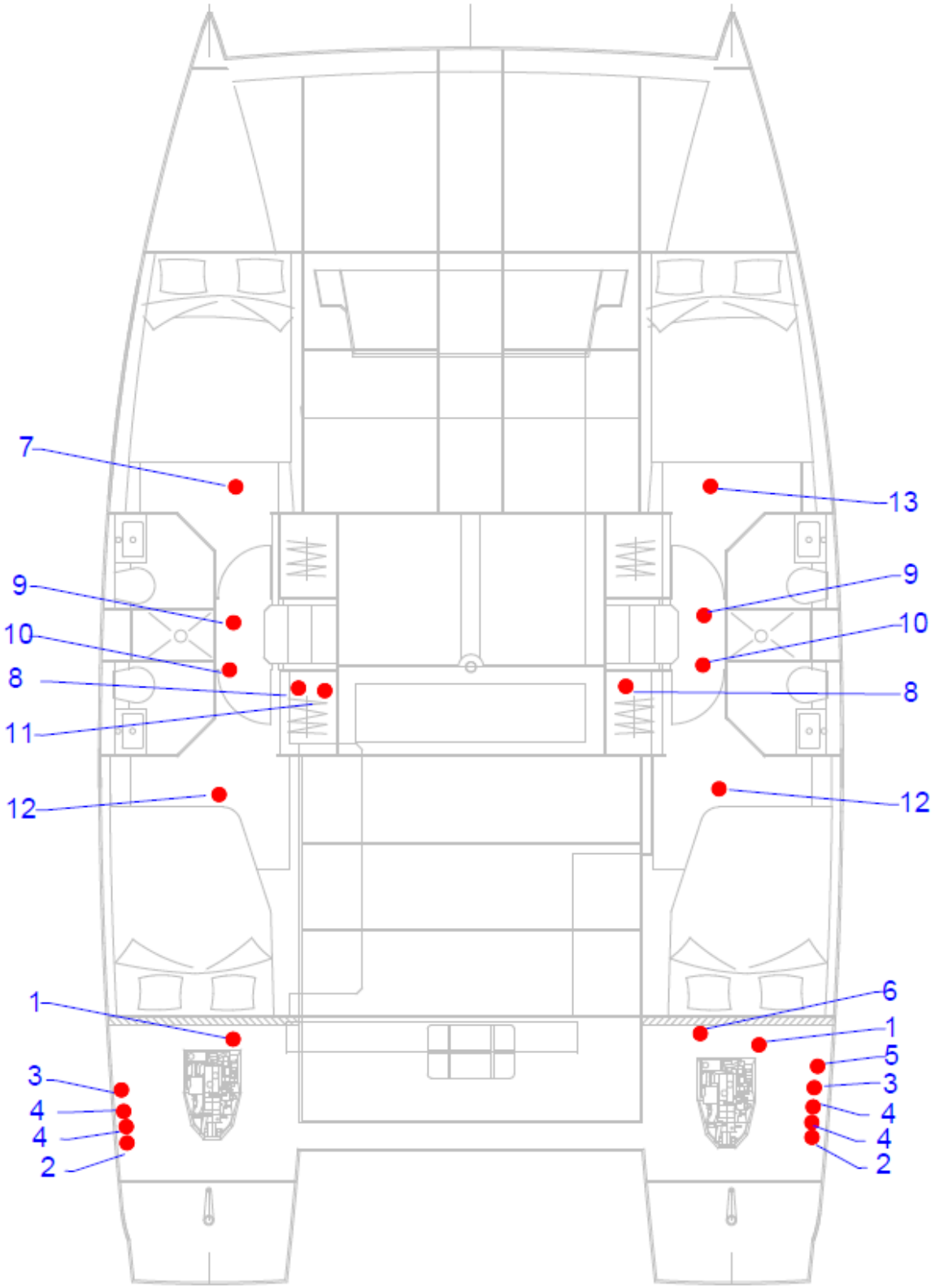
4-cabin 4-bathroom version



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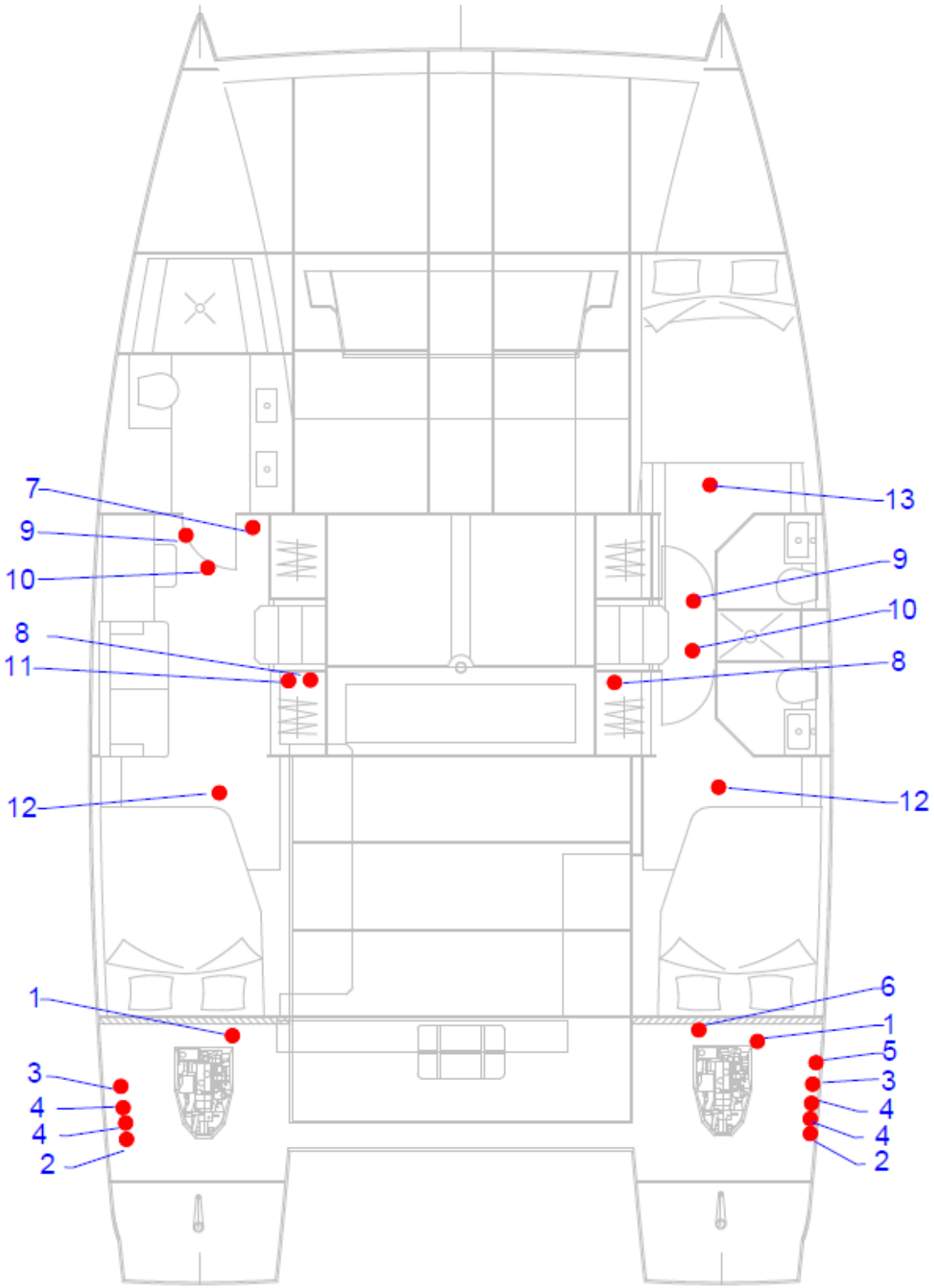

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LOCALISATION DES PASSES COQUE		THROUGH-HULL FITTINGS	
Rep.	***Désignation***	***Ref.***	***Description***
1	Prise eau moteur	1	Engine raw water intake
2	Rejet moteur	2	Engine outlet
3	Rejet pompe de cale manuelle	3	Manual bilge pump discharge
4	Rejet pompe de cale électrique cale moteur+coursive	4	Electric bilge pump discharge engineroom + passageway
5	Rejet dessalinisateur	5	Watermaker reject brine outlet
6	Prise eau dessalinisateur	6	Watermaker intake
7	Prise eau circuit eau de mer	7	Sea water circuit intake
8	Rejet eau grise	8	Grey water outlet
9	Rejet eau noire	9	Black water outlet
10	Prise eau WC	10	WC seawater intake
11	Rejet eau grise cuisine	11	Galley grey water discharge

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24. AFTER-SALES SERVICE

After-sales Service tel: +33 4 68 80 15 15

Email: sav.catana@catanagroup.com

25. LIST OF ACCOMPANYING DOCUMENTS

1. **Owner's Manual**
2. **Engine user manual and guarantee**
3. **Charger user manual and guarantee**
4. **Refrigerator user manual and guarantee**
5. **Electronics user manual and guarantee (depending on options)**
6. **User manual for pumps**
7. **Maintenance manual for winches**
8. **Hob and oven user manual**
9. **Gas regulator user manual**
10. **WC instruction manual**
11. **Radio (stereo) user manual and guarantee**
12. **Windlass user manual**
13. **Compass instruction manual**
14. **Liferaft logbook (depending on options)**
15. **Water heater instructions**

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